

**2022 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT BARRY
GYPSUM POND**

January 31, 2023

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This *Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Barry Gypsum Pond* has been prepared in accordance with the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D) and ADEM Admin. Code Ch. 335-13-15 under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.



01/31/2023

Austin C. Patton, P.G.

Date

AL Registered Professional Geologist No. 1585



01/31/2023

Gregory Whetstone, PE

Date

AL Registered Professional Engineer No. 27885



EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2022 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first and second 2022 semi-annual assessment groundwater monitoring activities at the Plant Barry Gypsum Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry Gypsum Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

The CCR unit began the monitoring period in assessment monitoring pursuant to § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6). Statistically significant increases (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSLs) of Appendix IV parameters have not been identified during assessment monitoring and therefore, the Site has remained in assessment monitoring.

SSLs of Appendix IV parameters were not identified during the first or second 2022 semi-annual monitoring periods, and in accordance with § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), APC will continue semi-annual assessment monitoring.

The following summarizes results and activities conducted during the 2022 annual assessment monitoring period:

- Submitted the 2021 Annual Groundwater Monitoring and Corrective Action Report to the Department on January 31, 2022.
- Completed the first 2022 semi-annual assessment groundwater monitoring event between May 31, 2022, and June 1, 2022.
- Submitted the first 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report to the Department on July 31, 2022.

- Completed the second 2022 semi-annual assessment groundwater monitoring event between October 31, 2022, and November 2, 2022.

The CCR Unit concluded the monitoring period in Assessment Monitoring. The following next steps will be taken for the CCR Unit:

- Continue semi-annual assessment monitoring in the spring of 2023 and subsequently submit the first Semi-Annual Groundwater Monitoring and Corrective Action Report of 2023 to the Department by July 31, 2023.

An **Executive Summary Table** highlighting program status and significant findings from the most recent annual monitoring period has been included on the next page.

**Executive Summary Table.
Monitoring Period Summary
Plant Barry - Gypsum Pond**

Assessment Monitoring Inintiated: January 15, 2018
 Monitoring Period: January 1 - December 31, 2022
 Beginning Status: Assessment
 Ending Status: Assessment

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	BY-GSA-MW-5, BY-GSA-MW-6.
Calcium	BY-GSA-MW-5, BY-GSA-MW-6.
Chloride	BY-GSA-MW-5, BY-GSA-MW-7.
Fluoride	None
pH	None
Sulfate	BY-GSA-MW-5.
TDS	BY-GSA-MW-5, BY-GSA-MW-6

Appendix IV SSLs

No Significant Results

* See the attached report for further details regarding statistical exceedances and alternate source demonstrations.

Assessment of Corrective Measures & Groundwater Remedy

Assessment of Corrective Measures

Site Remains in Assessment Monitoring (§ 257.95(d) & Alabama Admin. Code r. 335-13-15-.06(6)(d))

Groundwater Remedy

Site Remains in Assessment Monitoring (§ 257.95(d) & Alabama Admin. Code r. 335-13-15-.06(6)(d))

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ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	American Society for Testing and Materials
BGS	below ground surface
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
COC	chain of custody
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit
m	meter
mg/L	milligram per liter
MSL	mean sea level
MW-	denotes “Monitoring Well”
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SM	Standard Method(s)
SSI	statistically significant increase
SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	United States Geological Survey
UTLs	Upper Tolerance Limits

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2022 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first and second 2022 semi-annual assessment groundwater monitoring activities at the Plant Barry Gypsum Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry Gypsum Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 MONITORING PROGRAM STATUS

In accordance with § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III were identified at the Plant Barry Gypsum Pond during the first sampling event conducted in 2018 and the site remained in assessment monitoring. SSLs of Appendix IV constituents were not observed over the GWPS, in accordance with § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), APC will continue assessment monitoring and will not implement assessment of corrective measures under § 257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

3.0 SITE LOCATION AND DESCRIPTION

Alabama Power Company's Plant James M. Barry Electric Generating Plant (Plant Barry) is located in northeastern Mobile County, Alabama, approximately 23 miles north of Mobile, AL and 1 mile east of the city of Bucks, AL. The physical address is 15300 U.S. Highway 43 North, Bucks, Alabama 36512. Plant Barry lies in Section 36 of Township 1 North, Range 1 West, Sections 31 and 32 of Township 1 North, Range 1 East, Section 1 of Township 1 South, Range 1 West, and Sections 5 and 6 of Township 1 South, Range 1 East. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1980, 1982a, 1982b, 1983).

The Gypsum Pond is located south-southwest of the main plant, between Sisters Creek to the north, Cold Creek to the south, and the plant's discharge canal to the east. **Figure 1, Site Location Map**, depicts the location of the Plant and Gypsum Pond with respect to the surrounding area. The Gypsum Pond was constructed between 2007 and 2010 and consists of a 21.3-acre gypsum storage cell and a 10.4-acre sedimentation pond.

3.1 PHYSICAL SETTING

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is composed of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Land surface elevations near the Gypsum Pond slope from west to east and range from approximately 30 feet above mean sea level (MSL) to 10 feet MSL, respectively. **Figure 2, Site Topographic Map**, provides the topography of the site.

3.2 SITE GEOLOGY AND HYDROGEOLOGY

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. Sedimentary alluvial and terrace deposits of the Quaternary Period overlie largely unconsolidated Tertiary deposits in and adjacent to the flood plains of the Mobile River. At the site, Holocene age alluvial and low terrace deposits overlie undifferentiated Miocene Series sediments. Miocene Series sediments were primarily deposited in a regressive marine depositional environment. The Miocene Series is composed of

fine to very coarse-grained sand with interbedded sandy clays, silts, and shell fragments (Walter and Kidd, 1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic, and contain wood fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 3, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

Generalized near-surface stratigraphy of the site, in descending order, consists of (1) lean to flat clay down to an elevation of 10 feet MSL, (2) a poorly to well-sorted sand with lenses of clay down to elevations between -45 and -50 feet MSL, and (3) a basal clay layer (Unit 3). These units are considered part of the Pleistocene to Holocene age alluvial, low terrace, and coastal deposits described above.

The uppermost clay interval is described as a gray to brown to reddish-yellow, sandy lean clay that occasionally grades into an organic rich fat clay near the base of the unit. Some spatial heterogeneity is observed, as the clay is not present at boring location MW-1 and found to be much thicker at boring location MW-10. Portions of this clay-rich interval are likely inclusive of fill materials placed during construction of the Gypsum Pond.

Underlying the clay, an interval consists largely of coarse sediments and includes zones of clayey sand, well-sorted sand, poorly-sorted sand, and gravelly sand to gravel. The vertical and horizontal heterogeneity of these sands are not uncommon, as sand beds deposited in stream or creek valleys are lenticular and generally can be traced over only short distances (Davis, 1987). Clay stringers or clay-rich intervals are also encountered but are not prevalent. These clays represent low-energy deposition, while sands and gravels represent higher-energy environments. Gravel or sandy gravel intervals may be representative of buried creek beds.

Beneath the sandy layer, a medium to high plasticity, mottled gray to brown fat clay with sand was encountered in boring MW-8. At some locations (MW-6 and MW-7), the upper surface of this unit was described as a clayey sand or clayey gravel. Borings conducted at the site generally did not penetrate the vertical extent of this clay unit. However, limited data suggest this unit is 10 feet thick or greater beneath the site. **Figure 4A, Geologic Cross-Section A-A'** and **Figure 4B, Geologic Cross-Section B-B'**, illustrate

the geologic layering beneath the site. The two major aquifers in northern Mobile County are the Miocene-Pliocene Aquifer and the Watercourse Aquifer.

The thickness of the Miocene-Pliocene Aquifer, which consists of the Miocene Series undifferentiated and the Pliocene-age Citronelle Formation, is about 3,400 feet in coastal areas to the south, but it is much thinner in northern Mobile County. This aquifer consists of beds of sand, gravel, and clay, where groundwater flows through sand and gravel beds that are irregular in thickness and of limited lateral extent. Clay intervals between the sand units are not laterally extensive enough to prevent downward movement of ground water, but they do provide semi-confinement in some areas. Correlation of one sand unit to another is difficult, due to the discontinuous nature of these deposits. In Northern Mobile County, the principal water-bearing sands in the aquifer are at the base of the Miocene- Pliocene sequence (Gillett et al., 2000). Although adequate supplies are available shallower, the Miocene-Pliocene Aquifer will yield one million gallons per day per well in deeper wells. Large-capacity wells screened in this aquifer generally range in depth from 150 to 800 feet BGS, with specific capacities that range from 5 to 35 gallons per minute per foot of drawdown (Reed and McCain, 1972).

The Watercourse Aquifer is composed of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay. Buried sand and gravel channels, which yield large amounts of water, are surrounded by silty and clayey sediments that do not yield significant amounts of water but allow infiltration of water to recharge the sand and gravel beds. The present channels of the Mobile River are directly connected to some individual buried channels (Gillett et al., 2000). Alluvium and low terrace deposits in the Mobile River basin are a potential source of 0.5 to 1.0 million gallons per day per well. Wells ranging in depth from approximately 90 to 150 feet yield large capacities where saturated sands are of sufficient thickness. Specific capacities in these wells range from 6 to 73 gallons per minute per foot of drawdown (Reed and McCain, 1972).

Porous sands provide large quantities of water from deposits throughout Mobile County. Geologic units ranging in age from Miocene to Holocene are partially composed of permeable sands that yield water. Wells screened in these sands within 150 feet of the land surface typically yield adequate supplies for domestic use in northern Mobile County (Reed and McCain, 1972).

3.2.1 Uppermost Aquifer

The uppermost aquifer beneath the site corresponds to alluvial, low terrace, and coastal deposit sands, which are part of the Watercourse Aquifer system. At the site, the Watercourse Aquifer consists of medium to coarse sands with discrete gravelly sand and gravel. Clay nodules, lenses, and stringers are present, but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 15 and 25 feet below ground surface (BGS) and appears to extend down to approximately 65 to 70 feet BGS, where clays are encountered. Groundwater recharge to the Watercourse Aquifer is largely accomplished by infiltration of precipitation and subsequent percolation down to the water table. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. Locally, semi-confined to confined conditions may be present when a sufficient aquitard separates the aquifers or sand units.

3.2.2 Flow Interpretation

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations south of the Gypsum Pond to lower topographic elevations to the north. East of the Gypsum Pond, groundwater flow bends towards the northeast and the Plant Barry discharge canal. Groundwater flow is accomplished by porous or Darcian flow mechanics through sands of the Watercourse Aquifer. A potentiometric surface map for the site is presented in a later section.

3.3 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring well network to monitor groundwater quality within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Gypsum Pond is designed to monitor groundwater flow passing the waste boundary of the CCR unit. Wells were sited to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers,” ASTM Subcommittee D18.21, as a guideline.

3.3.1 Monitoring Wells

The groundwater monitoring network comprises 11 monitoring wells and 1 piezometer. Piezometer BY-GSA-PZ-12 is used to enhance groundwater potentiometric surfaces and constrain flow direction. Monitoring well locations and piezometers are presented on **Figure 5, Monitoring Well Location Map. Table 1A, Compliance Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Gypsum Pond.

3.3.1.1 Upgradient Wells

Data used to establish background water quality or selection of upgradient wells include (1) review of groundwater elevation data and potentiometric surface contour maps to determine groundwater flow direction and (2) a screening of Appendix III CCR indicator parameters (chiefly calcium, sulfate, and boron for Gypsum) for apparently elevated concentrations.

Monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 serve as upgradient locations for the Gypsum Pond. Groundwater generally flows from south to north across the Site. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the Site. **Table 1A** summarizes well construction details for upgradient monitoring well locations.

3.3.1.2 Downgradient Wells

Monitoring well locations BY-GSA-MW-5 through BY-GSA-MW-10 and BY-GSA-PZ-11 are used as downgradient locations for the Gypsum Pond. As requested in the ADEM Letter dated November 14, 2019, Responding to CCR Documents Submitted to ADEM for Plants Barry, Miller, Gaston, Greene County, and Gorgas; piezometer BY-GSA-PZ-11 was re-designated and used as a downgradient monitoring well during the first semi-annual sampling event of 2020. This change was included in the updated Groundwater Monitoring Plan submitted to ADEM in April 2020 and revised in August 2020. Downgradient monitoring wells are located lateral to and north of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site. **Table 1A** summarizes well construction details for downgradient monitoring well locations.

3.3.1.3 Piezometers

Location BY-GSA-PZ-12 is used as a water level-only piezometer to enhance groundwater potentiometric surfaces and constrain flow direction. **Table 1B, Piezometer Network Details**, summarizes the piezometer construction details and design purpose for the Plant Barry Gypsum Pond.

3.3.1.4 Monitoring Well Replacement and Abandonment

Monitoring well replacement and/or abandonment activities were not performed at the Site during the 2022 annual monitoring period.

3.4 GROUNDWATER MONITORING HISTORY

In accordance with § 257.94(b), eight independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of February 2016 to June 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in September 2017.

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, Alabama Power initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR §257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in April 2018, within 90 days of initiating the assessment monitoring program. Statistical evaluations of 2018 assessment monitoring data did not identify SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), the Site remained in Assessment Monitoring.

3.4.1 Available Monitoring Data

Laboratory analytical data is available for the groundwater monitoring history outlined in **Section 4.4**. Tabulated results for Appendix III and Appendix IV constituents by monitoring well are included in **Appendix A, Groundwater Analytical Data**.

3.4.2 Historical Groundwater Flow

Historical groundwater elevations and potentiometric surface maps show that groundwater flow patterns are consistent across monitoring events and as described in **Section 4.2.2**. Tables summarizing groundwater

elevations from all groundwater monitoring events since 2016 are included in **Appendix B, Historical Groundwater Elevations Summary**.

3.4.3 Monitoring Variance

The groundwater monitoring program at the Site is operating under a Variance granted by the Department on April 15, 2019, to conform State monitoring requirements under the CCR rule to Federal requirements. The variance:

1. Retains boron as an Appendix III detection monitoring parameter and excludes it as an Appendix IV assessment monitoring parameter.
2. Authorizes the use of Federally-published groundwater protection standards (GWPS) of 0.006 milligrams per liter (mg/L) for cobalt; 0.015 mg/L for lead; 0.040 mg/L for lithium; and 0.100 mg/L for molybdenum in lieu of background where those levels are greater than background levels.

3.5 GROUNDWATER SAMPLING AND ANALYSIS

Site compliance wells are sampled semi-annually. The temporal spacing between sampling events is sufficient to ensure that sampling events yield independent groundwater samples and generally, represent different climatic or meteorological seasons which often foster a degree of natural variability in groundwater quality.

During routine semi-annual monitoring events, all compliance wells are sampled and analyzed for Appendix III and Appendix IV constituents. Additional general chemistry constituents (major ions and anions) are now being collected routinely as well. These non-compliance parameters will be periodically analyzed to explore seasonal changes in geochemical facies in Site groundwater.

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding year. The Site entered an Assessment Monitoring program pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a) in January 2018. Statistical evaluations of 2018 assessment monitoring data did not identify SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), the Site remained in assessment monitoring.

3.5.1 Groundwater Sample Collection

Prior to recording water levels and collecting samples, each well was opened and allowed to equilibrate to atmospheric pressure. Within a 24-hour period, depths to groundwater were measured to the nearest 0.01 foot with an electronic water level indicator with depth referenced from the top of the inner PVC well casing. Groundwater elevations were calculated by subtracting the depth to groundwater from surveyed top-of-casing (TOC) elevations.

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with § 257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Barry are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures. In this procedure, field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) are measured to determine stabilization, and groundwater samples are collected when the following stabilization criteria are met:

- 0.2 standard units for pH.
- 5% for specific conductance.
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater).
- Turbidity measurements less than 5 NTU.
- Temperature and ORP – record only, no stabilization criteria.

During purging and sampling an AquaTroll instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol. Field data recorded in support of groundwater sampling activities for the monitoring period are included in **Appendix C, Laboratory and Field Records**.

3.5.2 Sample Preservation and Handling

Groundwater samples were collected within the designated size and type of laboratory-supplied containers required for specific parameters. Sample bottles were pre-preserved by the laboratory.

Where temperature control was required, samples were placed in an ice-packed cooler and cooled to less than 6 °C immediately after collection. Blue ice or other cooling packs were not used for cooling samples. An ice-packed cooler was on hand when samples were collected.

3.5.3 Chain of Custody

A COC record was used to track sample possession from the time of collection to the time of receipt at the laboratory. All samples were handled under strict COC procedures beginning in the field. COC records are included with the analytical laboratory reports included in **Appendix C**.

3.5.4 Laboratory Analysis

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama and Pace Analytical Services, LLC (Pace). Both APCEL and Pace are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. **Table 2, Monitoring Parameters and Reporting Limits**, lists assessment monitoring constituents analyzed from site groundwater samples. Groundwater data and COC records for the monitoring events are presented in **Appendix C**.

3.5.5 Monitoring Period Sampling Events

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding monitoring period. The first 2022 semi-annual assessment monitoring sampling event took place between May 31, 2022 to June 1, 2022. The second 2022 semi-annual assessment monitoring sampling event was performed between October 31, 2022 and November 2, 2022.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during the Assessment Monitoring events. All groundwater sampling activities were conducted by APC Field and Water Services. Pace Analytical Services performed the laboratory analyses of Radium-226 and Radium-228 (reported combined). APCEL performed the remaining Appendix III and Appendix IV analyses. Analytical data from the groundwater monitoring event is included as **Appendix C**, in accordance with the requirements of § 257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

4.0 GROUNDWATER ELEVATIONS AND FLOW

During the first 2022 semi-annual sampling event, groundwater elevations ranged from 5.51 to 6.75 feet NAVD88 (feet above reference 1988 North American Vertical Datum). **Figure 6A, Potentiometric Surface Contour Map (May 23, 2022)** depicts groundwater elevations and inferred groundwater flow direction from higher elevation to lower. During the second 2022 semi-annual sampling event, groundwater elevations ranged from 3.59 to 5.79 feet NAVD. **Figure 6B, Potentiometric Surface Contour Map (October 31, 2022)** depicts groundwater elevations and inferred groundwater flow from water-level measurements collected during the second semi-annual event.

As shown on **Figures 6A and 6B**, groundwater flows from south to north-to-northeast consistent with historic observations. Recent groundwater elevation data collected during the first and second semi-annual sampling events has been tabulated and included in **Table 3, Groundwater Elevation Summary**.

4.1 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the Site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Slug testing results from piezometers located near the Gypsum Pond provide an average hydraulic conductivity of 4.27×10^{-3} cm/sec, which correlates favorably with a long duration pumping test of the Watercourse Aquifer that revealed an average hydraulic conductivity of 3.3×10^{-3} cm/sec. The pumping test-derived hydraulic conductivity value of 3.3×10^{-3} cm/sec or 9.4 ft/day was used because the larger volume of aquifer allows averaging of small-scale heterogeneities, while slug tests are smaller in scale and could allow more results to skew an average. An estimated effective porosity of 25% is used in the flow rate calculations.

Horizontal flow velocity was calculated using the commonly used derivative of Darcy's Law:

$$V = \frac{K * i}{n_e}$$

Where:

V = Groundwater flow velocity $\left(\frac{feet}{day}\right)$

K = Average permeability of the aquifer $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient

n_e = Effective porosity

Using this equation, horizontal groundwater flow velocity is calculated for the site and is tabulated in **Appendix D, Groundwater Flow Velocity Calculations**. **Appendix D** presents the horizontal flow velocity calculated using groundwater elevation data measured during the first and second 2022 semi-annual assessment monitoring events.

5.0 EVALUATION OF GROUNDWATER QUALITY DATA

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at an interval of one sample per group of 10 well samples. These QA/QC samples include well duplicates, equipment blanks, and field blanks. Routine analyses of field QA/QC samples are a method for evaluating whether artificial bias could have been introduced into lab results by ways of sampling activities or equipment.

5.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples are used as measure of laboratory precision. Where field duplicates are collected, the RPD between the sample and duplicate sample is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2) / 2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the relative percent differences (RPD) are below 20%, the difference is considered acceptable, and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4A, Relative Percent Difference Calculations**, provides the RPD for sample and sample duplicates during the first and second semi-annual monitoring events of 2022. All RPDs were below 20% during the 2022 monitoring period.

Analytical data reviewed provided low-level or trace detections in field and or equipment blanks during the monitoring period sampling event. **Table 4B, Field QC: Blank Detections** provides a summary of low-

level detections observed during the 2022 annual monitoring event. Each of these detections were estimated concentrations, above the MDL but below the RL, and qualified in the laboratory analytical reports with “J flags.” However, if concentrations are detected above the MDL in field QC samples, original results on the (1) date of a blank detection and (2) with a value less than 5 times the field QC detection are flagged with a (+) U* and MDL/RL values modified based upon the blank concentration.

Based on this data validation step, four chromium results have qualifiers modified from J to (+) U*, and the corresponding MDL value, updated to match the blank concentration detected on the same date. **Table 4C, Field QC: Validation Results (Blanks)** provides a summarized list of data validation flags that are applied to Site data during the annual monitoring period. Validated flags do not have an impact on possible statistical analyses due to: (1) low-level concentrations flagged during validation and or (2) constituents flagged are not Site COI. The extent of trace chromium detections in blanks can be explained by a low MDL value of 0.000203 mg/L.

5.2 STATISTICAL METHODOLOGY AND TESTS

The Sanitas Groundwater statistical software is used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by EPA regulations. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

5.2.1 Appendix III Evaluation

Intrawell prediction limits, combined with a 1-of-2 verification strategy, are used for calcium, chloride, sulfate, and TDS to determine whether there has been a statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate boron, fluoride, and pH. Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify statistically significant increases (SSIs) over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify SSIs.

Groundwater Stats Consulting demonstrated that these test methods were appropriate in the October 2017 Statistical Analysis Plan, which was updated in the September 2019 data screening evaluation. Time series

plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers at all wells for Appendix III parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database.

The following adjustments were made:

- No statistical analyses are required on wells and analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in the background, simple substitution of one-half the reporting limit is used in the statistical analysis. The reporting limit used for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects the Kaplan-Meier non-detect adjustment is applied to the background data
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

5.2.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are compared to GWPS. Following the Unified Guidance, spatial variation for Appendix III parameters is tested using the ANOVA; this test is not prescribed for Appendix IV constituents. Unlike the statistical evaluation of Appendix III constituents (where single-sample results are compared to the statistical limit), Appendix IV analysis uses the pooled results from each downgradient well to develop a well-specific Confidence Interval that is compared to the statistical limit. The statistical limit is either the Interwell Tolerance limit (i.e., background) calculated using the pool of all available upgradient well data (see Chapter 7 of the Unified Guidance), or an applicable groundwater protection standard such as the MCL. Appendix IV background data are screened for outliers and extreme trending patterns that would lead to artificially elevated statistical limits.

Parametric tolerance limits (i.e., UTLs) were calculated using pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent on the number of background samples. The UTLs were then used as the GWPS.

As described in 40 CFR §257.95(h)(1)-(3) and the ADEM Variance the GWPS is:

- (1) The maximum contaminant level (MCL) established under 40 CFR §141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L.
 - (ii) Lead 0.015 mg/L.
 - (iii) Lithium 0.040 mg/L.
 - (iv) Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

In assessment monitoring, when the Lower Confidence Limit (LCL), or the entire interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL.

GWPS for Appendix IV constituents are updated on a biennial schedule. This schedule was initiated in 2019 with updates generally occurring after the second semi-annual sampling event of each biennial year. Data from upgradient wells collected between updates may still be used to support ASDs if merited.

5.3 STATISTICAL EXCEEDANCES

Analytical data from the first and second 2022 semi-annual monitoring events conducted in May and November were statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and updated August 2020 performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

5.3.1 Appendix III Constituents

A review of the Sanitas results presented in **Appendix E, Statistical Analysis** identified the following Appendix III SSIs during the first 2022 semi-annual monitoring event:

- BY-GSA-MW-5: Boron, Calcium, Chloride, Sulfate, and TDS.
- BY-GSA-MW-6: Boron, Calcium, and TDS.
- BY-GSA-MW-7: None
- BY-GSA-MW-9: None.
- BY-GSA-MW-10: None.

A review of the Sanitas results presented in **Appendix E, Statistical Analysis** identified the following Appendix III SSIs during the second 2022 semi-annual monitoring event:

- BY-GSA-MW-5: Boron, Calcium, Chloride, Sulfate, and TDS.
- BY-GSA-MW-6: Boron, Calcium, and TDS.
- BY-GSA-MW-7: Chloride.
- BY-GSA-MW-9: None.
- BY-GSA-MW-10: None.

Since the site is performing assessment monitoring, no further action is required regarding these SSIs.

5.3.2 Appendix IV Constituents

Table 5, Summary of Background Levels and Groundwater Protection Standards summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix E**. It should be noted that recent background concentrations for select constituents (Table 5) show values that exceed their respective GWPS concentration. These occurrences are a result of recent background concentrations that have not yet been integrated into the Fall 2023 GWPS update. The next semi-annual report should reflect the appropriate changes to the GWPS.

5.3.2.1 First Semi-Annual Groundwater Monitoring Event

A review of the Sanitas results presented in **Appendix E** did not identify any Appendix IV SSLs during the 2022 annual monitoring period. **Table 6, First Semi-Annual Monitoring Event Analytical Summary** provides a summary of all constituent concentrations for the first semi-annual sampling event of 2022. Accordingly, **Table 7, Second Semi-Annual Monitoring Event Analytical Summary** provides a summary of all constituent concentrations for the second semi-annual event of 2022.

6.0 SUMMARY AND CONCLUSIONS

Based on results reported in the *2017 Annual Groundwater and Corrective Action Monitoring Report*, APC initiated an assessment monitoring program on January 15, 2018. Groundwater samples were subsequently collected from the certified well network and analyzed for Appendix III and IV parameters.

The certified compliance monitoring well network is resampled on a semi-annual basis. The groundwater samples were analyzed for all Appendix III and IV parameters. Statistical evaluations of the first and second 2022 assessment monitoring data did not identify SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), APC will continue assessment monitoring. The following future actions will be taken or are recommended for the Site:

The following summarizes results and activities conducted during the 2022 annual assessment monitoring period:

- Submitted the 2021 Annual Groundwater Monitoring and Corrective Action Report to the Department on January 31, 2022.
- Completed the first 2022 semi-annual assessment groundwater monitoring event between May 31, 2022, and June 1, 2022.
- Submitted the first 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report to the Department on July 31, 2022.
- Completed the second 2022 semi-annual assessment groundwater monitoring event between October 31, 2022, and November 2, 2022.

The CCR Unit concluded the monitoring period in Assessment Monitoring. The following next steps will be taken for the CCR Unit:

- Continue semi-annual assessment monitoring in the spring of 2023 and subsequently submit the first Semi-Annual Groundwater Monitoring and Corrective Action Report of 2023 to the Department by July 31, 2023.

7.0 REFERENCES

- Alabama Department of Environmental Management (ADEM), 2018, Solid Waste Program, Division 13, ADEM Admin. Code r. 335-13-15.
- ASTM Standard D5092, 2004(2010)e1, Standard Practice for Design and Installation of Groundwater Monitoring Wells, ASTM International, West Conshohocken, PA, DOI 10.1520/D5092-04R10E01, www.astm.org.
- Chandler, R.V., Moore, J.D., and Gillet, B., 1985, Ground-water chemistry and salt-water encroachment, southern Baldwin County, Alabama: Alabama Geological Survey Bulletin 126, p. 166.
- Davis, M.E., 1987, Stratigraphic and Hydrogeologic Framework of the Alabama Coastal Plain, U.S. Geological survey, Water-Resources Investigations Report 87-4112.
- Gillet, B., Raymond, D.E., Moore, J.D., and Tew, B.H., 2000, Hydrogeology and Vulnerability to Contamination of Major Aquifers in Alabama: Area 13, Geological Survey of Alabama.
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance.
- USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.
- United States Geological Survey (USGS), 1980 (Photorevised 1985), The Basin Alabama Quadrangle, 7.5 Minute Series Topographic Map.
- United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map.
- United States Geological Survey (USGS), 1982b, Mount Vernon Alabama Quadrangle, 7.5 Minute Series Topographic Map.
- United States Geological Survey (USGS), 1983, Stiggins Lake Alabama Quadrangle, 7.5 Minute Series Topographic Map.
- Walter, G.R., and Kidd, R.E., 1979, Ground-water management techniques for the control of salt-water encroachment in Gulf Coast aquifer, a summary report: Geological Survey of Alabama open-file report, p. 84.

Tables



**Table 1a. - Compliance Monitoring Well Network Details
Plant Barry Gypsum Storage Area**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-UP-MW-1	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99445	-88.01134	17.49	20.66	44.4	-13.23	-23.23	10	10/7/2015
BY-UP-MW-2	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99425	-88.01331	17.00	19.95	47.6	-17.23	-27.23	10	10/7/2015
BY-UP-MW-3	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.9933	-88.01424	20.15	23.24	48.5	-14.89	-24.89	10	10/7/2015
BY-UP-MW-4	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99413	-88.01566	26.16	29.12	64.1	-24.54	-34.54	10	10/13/2015
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99585	-88.01406	31.21	34.31	69.1	-24.41	-34.41	10	10/8/2015
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	30.99726	-88.0143	18.60	21.68	37.9	-5.80	-15.80	10	10/8/2015
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99736	-88.01296	17.46	20.59	45.5	-14.54	-24.54	10	10/8/2015
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99686	-88.01125	31.51	34.36	68.8	-24.08	-34.08	10	10/8/2015
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99654	-88.01034	10.44	13.32	46.1	-22.42	-32.42	10	10/8/2015
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99556	-88.01032	14.65	17.61	44.7	-16.68	-26.68	10	10/8/2015
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99835	-88.01347	23.56	25.92	57.9	-21.60	-31.60	10	10/8/2015

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1b. - Piezometer Well Network
Details Plant Barry Gypsum Storage Area**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	30.99787	-88.01136	14.14	17.43	43.5	-15.65	-25.65	10	10/8/2015

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.

Table 2. Parameters And Reporting Limits

Plant Barry Gypsum Storage Area

11/01/2022 - 11/02/2022

Appendix III Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Boron	EPA 200.7	0.1015	mg/L
Calcium	EPA 200.7	0.406	mg/L
Chloride	SM4500Cl E	1-2	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
pH_Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	2-6	mg/L
TDS	NA	NA	mg/L
Appendix IV Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Antimony	EPA 200.8	0.001015	mg/L
Arsenic	EPA 200.8	0.000203	mg/L
Barium	EPA 200.8	0.001015	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
Lead	EPA 200.8	0.000203	mg/L
Lithium	EPA 200.7	0.02	mg/L
Mercury	EPA 245.1	0.0005	mg/L
Molybdenum	EPA 200.8	0.000203	mg/L
Selenium	EPA 200.8	0.001015	mg/L
Thallium	EPA 200.8	0.000203	mg/L
Combined Radium 226 + 228	NA	NA	pCi/L

Notes:

1. Reporting Limit values can display range depending upon matrix interferences and dilution factors
2. pH is a field acquired parameter and does not have a laboratory method or reporting limit
3. Combined Radium 226 + 228 – product of radium-226 + radium-228; reporting limits presented are sum of radium 226, radium 228 reporting limits
4. EPA 200.7 – EPA methodology for the "Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry"
5. EPA 200.8 - EPA methodology for the "Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)"
6. SM 2320, 2540, 4500 – Standard Methods for Examination of Water and Wastewater.
7. Total Radium Calculation – Term used herein for EPA 9315 + EPA 9320
8. EPA 9315 – Used for Radium-226; SW-846: Alpha-Emitting Radium Isotopes, part of Test Methods for Evaluation Solid Waste, Physical/Chemical Methods
9. EPA 9320 – Used for Radium-228; SW-846: Alpha-Emitting Radium Isotopes, part of Test Methods for Evaluation Solid Waste, Physical/Chemical Methods



Table 3. Groundwater Elevations Summary

Plant Barry Gypsum Storage Area

05/23/2022 - 10/31/2022

Measurement Date		05/23/2022		05/31/2022		10/31/2022	
Well	TOC Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
BY-GSA-MW-10	17.61	N/A	N/A	11.36	6.25	13.20	4.41
BY-GSA-MW-5	34.31	N/A	N/A	28.19	6.12	29.78	4.53
BY-GSA-MW-6	21.68	N/A	N/A	15.94	5.74	17.61	4.07
BY-GSA-MW-7	20.59	N/A	N/A	14.87	5.72	16.70	3.89
BY-GSA-MW-8	34.36	N/A	N/A	28.34	6.02	30.16	4.20
BY-GSA-MW-9	13.32	N/A	N/A	7.31	6.01	9.15	4.17
BY-GSA-PZ-11	25.92	N/A	N/A	20.41	5.51	22.33	3.59
BY-GSA-PZ-12	17.43	N/A	N/A	N/A	N/A	13.51	3.92
BY-UP-MW-1	20.66	14.49	6.17	N/A	N/A	15.62	5.04
BY-UP-MW-2	19.95	13.92	6.03	N/A	N/A	14.95	5.00
BY-UP-MW-3	23.24	16.49	6.75	N/A	N/A	17.45	5.79
BY-UP-MW-4	29.12	22.75	6.37	N/A	N/A	23.59	5.53

Notes:

ft. = feet; ft. NAVD = elevation in feet, referenced to North American Vertical Datum (1988); TOC = top of casing; BTOC = below top of casing; N/A = Not Acquired



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Barry Gypsum Storage Area
05/31/2022 - 11/02/2022

BY-GSA-MW-7				
Sample Date = 11/2/2022				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.96	1.96	0.00%
Chloride	mg/L	22.7	18.8	18.80%
Sulfate	mg/L	2.35	2.24	4.79%
Arsenic	mg/L	0.00033	0.00036	9.22%
Barium	mg/L	0.131	0.129	1.54%
Chromium	mg/L	0.00144	0.00149	3.41%
Cobalt	mg/L	0.00228	0.0023	0.87%
BY-UP-MW-4				
Sample Date = 11/1/2022				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.59	1.65	3.70%
Chloride	mg/L	3.3	3.31	0.30%
Sulfate	mg/L	4.59	4.7	2.37%
Barium	mg/L	0.11	0.116	5.31%
Chromium	mg/L	0.00111	0.00124	11.06%
Cobalt	mg/L	0.00169	0.00162	4.23%
BY-GSA-MW-6				
Sample Date = 5/31/2022				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	0.685	0.683	0.29%
Calcium	mg/L	9.98	9.88	1.01%
Chloride	mg/L	7.22	7.1	1.68%
Sulfate	mg/L	38.6	37.9	1.83%
Arsenic	mg/L	0.00052	0.00048	8.08%
Barium	mg/L	0.202	0.205	1.47%
Cadmium	mg/L	0.00023	0.00024	2.94%
Chromium	mg/L	0.00412	0.004	2.96%
Cobalt	mg/L	0.00724	0.00732	1.10%
Selenium	mg/L	0.0132	0.0131	0.76%
BY-UP-MW-3				
Sample Date = 5/31/2022				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.95	1.97	1.02%
Chloride	mg/L	3.39	3.41	0.59%



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Barry Gypsum Storage Area
05/31/2022 - 11/02/2022

BY-UP-MW-3				
Sample Date = 5/31/2022				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Sulfate	mg/L	7.02	7.18	2.25%
Barium	mg/L	0.0992	0.101	1.80%
Chromium	mg/L	0.00139	0.00134	3.66%
Cobalt	mg/L	0.00149	0.00152	1.99%

Notes:

1. The RPD calculations presented are for analyte pairs where original and duplicate results are valid, unqualified detections.
2. RPD calculation results less than or equal to 20% are considered acceptable.
3. Results greater than 20% are given data validation flags to indicate RPD criteria failure. Communication to sampling team and lab may be necessary to explore nature of RPD failure(s).



Table 4b. - Field QC: Blank Detections

Plant Barry Gypsum Storage Area
06/01/2022 - 11/02/2022

Parameters Detected Above MDL					
Sample Date	QC Location	Parameter	Blank Concentration	Units	MDL
06/01/2022	EB-1	Chromium	0.00025 J	mg/L	0.0002
06/01/2022	FB-1	Chromium	0.00027 J	mg/L	0.0002

Notes:

1. Lab qualifiers have been appended to result when applicable
2. MDL = Method Detection Limit
3. Only Appendix 4 Constituents were compared and validated. Radium data was not validated.
4. mg/L = milligrams per liter



Table 4c – Field QC: Data Validation Results (Blanks)

Plant Barry Gypsum Storage Area

06/01/2022 - 11/02/2022

List of Compliance Sample Concentrations < 5x Blank Concentrations

Sample Date	QC Sample	Parameter	QC Sample Result (5x)	Sample Location	Result	Units	Validation Flag
06/01/2022	EB-1	Chromium	0.00125	BY-GSA-MW-10	0.00089 J	mg/L	+(U)*
06/01/2022	FB-1	Chromium	0.00137	BY-GSA-MW-10	0.00089 J	mg/L	+(U)*
06/01/2022	EB-1	Chromium	0.00125	BY-GSA-MW-9	0.00104 v	mg/L	+(U)*
06/01/2022	FB-1	Chromium	0.00137	BY-GSA-MW-9	0.00104 v	mg/L	+(U)*

Notes:

1. Lab qualifiers have been appended to result when applicable
2. QC Sample listed represents the source of comparison, validation flag.
3. Only Appendix 4 Constituents were compared and validated.



Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Barry Gypsum Storage Area

Appendix IV Analytes			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002
Combined Radium 226 + 228	pCi/L	3	5

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. Background concentrations/limits are used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and ADEM Rule 335-13-15-.06(h).
4. GWPS are generally updated on a 2 year basis which began in the Fall of 2019 (Fall 2019, Fall 2021, etc).

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 05/31/2022 - 06/01/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	05/31/2022	57.06	0.34	193.96	3.89	20.77	2
Upgradient	BY-UP-MW-2	05/31/2022	50.04	6.27	226.41	3.31	20	4.82
Upgradient	BY-UP-MW-3	05/31/2022	49.57	5.82	223.76	3.54	20.09	3.1
Upgradient	BY-UP-MW-4	05/31/2022	52.45	6.48	223.18	3.97	22.67	8.23
Downgradient	BY-GSA-MW-10	06/01/2022	58.57	4.43	351.55	4.56	20.8	4.6
Downgradient	BY-GSA-MW-5	05/31/2022	168.62	4.41	272.37	4.61	23.83	4.65
Downgradient	BY-GSA-MW-6	05/31/2022	143.33	4.64	275.76	4.98	22.95	3.42
Downgradient	BY-GSA-MW-7	06/01/2022	64.53	2.66	347.78	4.56	22.13	4.86
Downgradient	BY-GSA-MW-8	06/01/2022	44.9	0.87	404.01	4.03	22.17	2.9
Downgradient	BY-GSA-MW-9	06/01/2022	64.76	3.03	308.06	4.49	21.31	4.02
Downgradient	BY-GSA-PZ-11	06/01/2022	49.53	5.02	352.58	4.74	22.95	3.83

Notes:

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2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 05/31/2022 - 06/01/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	05/31/2022	0.0567 J	1.14	1.93	<0.06	3.89	12.8
Upgradient	BY-UP-MW-2	05/31/2022	<0.03	1.24	2.17	<0.06	3.31	8.09
Upgradient	BY-UP-MW-3	05/31/2022	<0.03	1.95	3.39	<0.06	3.54	7.02
Upgradient	BY-UP-MW-4	05/31/2022	<0.03	2.02	3.31	<0.06	3.97	7.94
Downgradient	BY-GSA-MW-10	06/01/2022	0.0493 J	1.04	3.35	<0.06	4.56	11.4
Downgradient	BY-GSA-MW-5	05/31/2022	0.939	8.52	7.83	<0.06	4.61	48.7
Downgradient	BY-GSA-MW-6	05/31/2022	0.685	9.98	7.22	<0.06	4.98	38.6
Downgradient	BY-GSA-MW-7	06/01/2022	<0.03	1.27	14.7	<0.06	4.56	3.4
Downgradient	BY-GSA-MW-8	06/01/2022	<0.03	0.94	5.38	<0.06	4.03	5.11
Downgradient	BY-GSA-MW-9	06/01/2022	0.0933 J	1.55	4.29	<0.06	4.49	13
Downgradient	BY-GSA-PZ-11	06/01/2022	0.0564 J	1.13	7.97	<0.06	4.74	4.75

Notes:

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- U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 05/31/2022 - 06/01/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	05/31/2022	<0.000508	0.000237	0.1	<0.000406	<6.8e-005	0.000334 J	0.00487	<0.06
Upgradient	BY-UP-MW-2	05/31/2022	<0.000508	8.79e-005 J	0.153	0.000413 J	<6.8e-005	0.0012	0.00194	<0.06
Upgradient	BY-UP-MW-3	05/31/2022	<0.000508	<8.1e-005	0.0992	<0.000406	<6.8e-005	0.00139	0.00149	<0.06
Upgradient	BY-UP-MW-4	05/31/2022	<0.000508	0.000203	0.129	<0.000406	<6.8e-005	0.00156	0.0015	<0.06
Downgradient	BY-GSA-MW-10	06/01/2022	<0.000508	8.93e-005 J	0.136	<0.000406	<6.8e-005	0.000893 J	0.0027	<0.06
Downgradient	BY-GSA-MW-5	05/31/2022	<0.000508	0.000527	0.226	0.000713 J	0.000122 J	0.00281	0.00606	<0.06
Downgradient	BY-GSA-MW-6	05/31/2022	<0.000508	0.000515	0.202	0.00066 J	0.000235	0.00412	0.00724	<0.06
Downgradient	BY-GSA-MW-7	06/01/2022	<0.000508	0.000238	0.0803	<0.000406	<6.8e-005	0.00157	0.00162	<0.06
Downgradient	BY-GSA-MW-8	06/01/2022	<0.000508	<8.1e-005	0.0477	<0.000406	<6.8e-005	0.00226	0.000482	<0.06
Downgradient	BY-GSA-MW-9	06/01/2022	<0.000508	0.000105 J	0.142	<0.000406	<6.8e-005	0.00104	0.00131	<0.06
Downgradient	BY-GSA-PZ-11	06/01/2022	<0.000508	<8.1e-005	0.0821	<0.000406	<6.8e-005	0.00292	0.00143	<0.06

Notes:

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3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 05/31/2022 - 06/01/2022

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	BY-UP-MW-1	05/31/2022	8.38e-005 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.34
Upgradient	BY-UP-MW-2	05/31/2022	7.81e-005 J	<0.007105	<0.0003	<0.000102	0.000633 J	<6.8e-005	1.38
Upgradient	BY-UP-MW-3	05/31/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.67
Upgradient	BY-UP-MW-4	05/31/2022	0.000173 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.47
Downgradient	BY-GSA-MW-10	06/01/2022	0.000102 J	<0.007105	<0.0003	<0.000102	0.00125	<6.8e-005	2.27
Downgradient	BY-GSA-MW-5	05/31/2022	0.000182 J	<0.007105	0.000362 J	<0.000102	0.0217	<6.8e-005	2.31
Downgradient	BY-GSA-MW-6	05/31/2022	0.000111 J	<0.007105	0.000345 J	<0.000102	0.0132	<6.8e-005	2.22
Downgradient	BY-GSA-MW-7	06/01/2022	7.97e-005 J	<0.007105	<0.0003	<0.000102	0.000581 J	<6.8e-005	0.99
Downgradient	BY-GSA-MW-8	06/01/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.37
Downgradient	BY-GSA-MW-9	06/01/2022	0.000232	<0.007105	<0.0003	<0.000102	0.00204	<6.8e-005	2.05
Downgradient	BY-GSA-PZ-11	06/01/2022	0.00012 J	<0.007105	<0.0003	<0.000102	0.00132	<6.8e-005	1.13

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Analytical Results Summary Plant Barry Gypsum Storage Area 05/31/2022 - 06/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Iron Total mg/L	Magnesium Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Sulfide mg/L	Calcium mg/L	Chloride mg/L
Upgradient	BY-UP-MW-1	05/31/2022	4.8	2.23	2.05	6.74	3.15	0	1.14	1.93
Upgradient	BY-UP-MW-2	05/31/2022	0.0704	2.48	2.25	8.39	3.92	0	1.24	2.17
Upgradient	BY-UP-MW-3	05/31/2022	0.027 J	2.05	3.11	8.6	4.02	0	1.95	3.39
Upgradient	BY-UP-MW-4	05/31/2022	0.222	2.2	2.69	8.82	4.12	0	2.02	3.31
Downgradient	BY-GSA-MW-10	06/01/2022	0.0987	2.58	2.62	7.9	3.69	0	1.04	3.35
Downgradient	BY-GSA-MW-5	05/31/2022	0.0362 J	8.35	4.4	10.6	4.97	0	8.52	7.83
Downgradient	BY-GSA-MW-6	05/31/2022	0.0318 J	6.24	3.98	10.7	4.99	0	9.98	7.22
Downgradient	BY-GSA-MW-7	06/01/2022	0.111	1.4	7.53	10.4	4.86	0	1.27	14.7
Downgradient	BY-GSA-MW-8	06/01/2022	0.0374 J	1.09	4.84	11.2	5.23	0	0.94	5.38
Downgradient	BY-GSA-MW-9	06/01/2022	0.0286 J	2.59	2.84	8.37	3.91	0	1.55	4.29
Downgradient	BY-GSA-PZ-11	06/01/2022	0.0679	1.32	3.95	10.6	4.96	0	1.13	7.97

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Potassium mg/L	Manganese Total mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg/L	Carbonate Alkalinity as CaCO3 mg/L
Upgradient	BY-UP-MW-1	05/31/2022	<0.2	12.8	0.0898	0.444 J	0.154	1.58 J	8.56	NC
Upgradient	BY-UP-MW-2	05/31/2022	1.84	8.09	0.127	0.905	0.0241	1.14 J	0.44	NC
Upgradient	BY-UP-MW-3	05/31/2022	2.11	7.02	0.0446	0.987	0.0196	<1	1.24	NC
Upgradient	BY-UP-MW-4	05/31/2022	2.55	7.94	0.233	1.05	0.0173	<1	0.44	NC
Downgradient	BY-GSA-MW-10	06/01/2022	0.643	11.4	0.28	0.827	0.04	1.17 J	0.36	NC
Downgradient	BY-GSA-MW-5	05/31/2022	1.3	48.7	0.263	1.83	0.0615	<1	--	NC
Downgradient	BY-GSA-MW-6	05/31/2022	1.22	38.6	0.289	1.68	0.0748	<1	7.08	NC
Downgradient	BY-GSA-MW-7	06/01/2022	0.326	3.4	0.0846	1.09	0.0157	<1	1.88	NC
Downgradient	BY-GSA-MW-8	06/01/2022	0.237 J	5.11	0.028	0.891	0.0175	<1	4.76	NC
Downgradient	BY-GSA-MW-9	06/01/2022	0.314	13	0.225	0.971	0.0427	<1	0.32	NC
Downgradient	BY-GSA-PZ-11	06/01/2022	0.457	4.75	0.232	1.28	0.0125	<1	0.44	NC

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- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Bicarbonate Alkalinity as CaCO ₃ mg/L
Upgradient	BY-UP-MW-1	05/31/2022	8.56
Upgradient	BY-UP-MW-2	05/31/2022	NC
Upgradient	BY-UP-MW-3	05/31/2022	1.24
Upgradient	BY-UP-MW-4	05/31/2022	NC
Downgradient	BY-GSA-MW-10	06/01/2022	NC
Downgradient	BY-GSA-MW-5	05/31/2022	NC
Downgradient	BY-GSA-MW-6	05/31/2022	7.08
Downgradient	BY-GSA-MW-7	06/01/2022	1.88
Downgradient	BY-GSA-MW-8	06/01/2022	4.76
Downgradient	BY-GSA-MW-9	06/01/2022	NC
Downgradient	BY-GSA-PZ-11	06/01/2022	NC

Notes:

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3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	11/01/2022	53.01	0.13	242.66	4.6	20.76	2.93
Upgradient	BY-UP-MW-2	11/01/2022	50.18	6.15	407.2	4.42	20.21	4.92
Upgradient	BY-UP-MW-3	11/01/2022	52.86	5.67	397.88	4.12	20.26	1.53
Upgradient	BY-UP-MW-4	11/01/2022	51.53	5.78	361.89	4.74	21.5	4.19
Downgradient	BY-GSA-MW-10	11/02/2022	107.59	4.5	368.36	4.39	21.76	6.75
Downgradient	BY-GSA-MW-5	11/02/2022	185.77	4.07	407.64	4.42	22.73	1.16
Downgradient	BY-GSA-MW-6	11/02/2022	131.4	4.78	371.25	4.84	23.03	1.78
Downgradient	BY-GSA-MW-7	11/02/2022	88.07	2.29	348.93	4.75	22.12	8.68
Downgradient	BY-GSA-MW-8	11/02/2022	90.27	0.59	412.28	3.84	21.41	2.9
Downgradient	BY-GSA-MW-9	11/02/2022	104.76	2.95	358.65	3.93	22.44	2.95
Downgradient	BY-GSA-PZ-11	11/02/2022	53.25	4.85	387.23	4.57	22.55	2.35

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	11/01/2022	0.0501 J	1.01	2.37	<0.06	4.6	11.3
Upgradient	BY-UP-MW-2	11/01/2022	<0.03	1.23	2.22	<0.06	4.42	7.11
Upgradient	BY-UP-MW-3	11/01/2022	<0.03	1.94	3.09	<0.06	4.12	6.83
Upgradient	BY-UP-MW-4	11/01/2022	<0.03	1.59	3.3	<0.06	4.74	4.59
Downgradient	BY-GSA-MW-10	11/02/2022	0.0502 J	1.15	3.07	<0.06	4.39	11.5
Downgradient	BY-GSA-MW-5	11/02/2022	1.69	10.9	8.44	<0.06	4.42	51.4
Downgradient	BY-GSA-MW-6	11/02/2022	0.741	7.78	6.58	<0.06	4.84	36.9
Downgradient	BY-GSA-MW-7	11/02/2022	<0.03	1.96	22.7	<0.06	4.75	2.35
Downgradient	BY-GSA-MW-8	11/02/2022	0.0343 J	1.04	5.08	<0.06	3.84	5.34
Downgradient	BY-GSA-MW-9	11/02/2022	0.0809 J	1.67	3.14	<0.06	3.93	12.2
Downgradient	BY-GSA-PZ-11	11/02/2022	0.035 J	1.31	7.81	<0.06	4.57	4.65

Notes:

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3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	11/01/2022	<0.000508	0.000345	0.0804	<0.000406	<6.8e-005	0.000212 J	0.00394	<0.06
Upgradient	BY-UP-MW-2	11/01/2022	<0.000508	0.000379	0.145	0.000429 J	<6.8e-005	0.00209	0.0016	<0.06
Upgradient	BY-UP-MW-3	11/01/2022	<0.000508	<8.1e-005	0.0963	<0.000406	<6.8e-005	0.0012	0.00143	<0.06
Upgradient	BY-UP-MW-4	11/01/2022	<0.000508	0.000115 J	0.11	<0.000406	<6.8e-005	0.00111	0.00169	<0.06
Downgradient	BY-GSA-MW-10	11/02/2022	<0.000508	0.000147 J	0.133	<0.000406	<6.8e-005	0.000663 J	0.00249	<0.06
Downgradient	BY-GSA-MW-5	11/02/2022	<0.000508	0.000548	0.146	0.000937 J	0.000189 J	0.00259	0.00667	<0.06
Downgradient	BY-GSA-MW-6	11/02/2022	<0.000508	0.000429	0.204	0.000408 J	0.000178 J	0.00344	0.00684	<0.06
Downgradient	BY-GSA-MW-7	11/02/2022	0.000586 J	0.000331	0.131	<0.000406	<6.8e-005	0.00144	0.00228	<0.06
Downgradient	BY-GSA-MW-8	11/02/2022	<0.000508	8.32e-005 J	0.055	<0.000406	<6.8e-005	0.00209	0.000514	<0.06
Downgradient	BY-GSA-MW-9	11/02/2022	<0.000508	0.000146 J	0.141	<0.000406	<6.8e-005	0.000918 J	0.00118	<0.06
Downgradient	BY-GSA-PZ-11	11/02/2022	<0.000508	8.52e-005 J	0.0903	<0.000406	<6.8e-005	0.00276	0.00144	<0.06

Notes:

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2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	BY-UP-MW-1	11/01/2022	0.00017 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.11
Upgradient	BY-UP-MW-2	11/01/2022	0.000411	<0.007105	<0.0003	<0.000102	0.000558 J	<6.8e-005	1
Upgradient	BY-UP-MW-3	11/01/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	0.53 U
Upgradient	BY-UP-MW-4	11/01/2022	8.6e-005 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.36
Downgradient	BY-GSA-MW-10	11/02/2022	0.000122 J	<0.007105	<0.0003	<0.000102	0.00133	<6.8e-005	1.34
Downgradient	BY-GSA-MW-5	11/02/2022	0.000144 J	<0.007105	<0.0003	<0.000102	0.0247	<6.8e-005	1.24
Downgradient	BY-GSA-MW-6	11/02/2022	0.000146 J	<0.007105	<0.0003	<0.000102	0.0156	<6.8e-005	1.7
Downgradient	BY-GSA-MW-7	11/02/2022	0.000125 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.09
Downgradient	BY-GSA-MW-8	11/02/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.06
Downgradient	BY-GSA-MW-9	11/02/2022	0.000233	<0.007105	<0.0003	<0.000102	0.00198	<6.8e-005	1.93
Downgradient	BY-GSA-PZ-11	11/02/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	0.00163	<6.8e-005	0.625 U

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L
Upgradient	BY-UP-MW-1	11/01/2022	0.0636	1.01	3.82	1.86	0.133	2.42	6.66	3.11
Upgradient	BY-UP-MW-2	11/01/2022	0.349	1.23	0.948	2.35	0.022	2.09	8.9	4.16
Upgradient	BY-UP-MW-3	11/01/2022	0.0454	1.94	0.033 J	2	0.0185	3.02	8.62	4.03
Upgradient	BY-UP-MW-4	11/01/2022	0.138	1.59	0.0665	1.89	0.0166	2.82	9.37	4.38
Downgradient	BY-GSA-MW-10	11/02/2022	0.308	1.15	0.0662	2.57	0.0402	2.34	7.96	3.72
Downgradient	BY-GSA-MW-5	11/02/2022	0.288	10.9	<0.00812	9.13	0.0758	4.56	11	5.15
Downgradient	BY-GSA-MW-6	11/02/2022	0.242	7.78	0.0343 J	6.4	0.0792	3.76	10.6	4.94
Downgradient	BY-GSA-MW-7	11/02/2022	0.138	1.96	0.0763	2.04	0.0235	8.35	10.7	5
Downgradient	BY-GSA-MW-8	11/02/2022	0.0231	1.04	0.0104 J	1.14	0.0202	4.46	11.7	5.45
Downgradient	BY-GSA-MW-9	11/02/2022	0.208	1.67	0.0138 J	2.49	0.041	2.02	8.35	3.9
Downgradient	BY-GSA-PZ-11	11/02/2022	0.0944	1.31	0.0166 J	1.45	0.014	4	10.2	4.78

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Sulfide mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Potassium mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO ₃ mg CaCO ₃ /L	Carbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Upgradient	BY-UP-MW-1	11/01/2022	0	<0.2	11.3	0.46 J	6.18	3.9	NC	3.9
Upgradient	BY-UP-MW-2	11/01/2022	0	1.62	7.11	0.832	2.19	1.58	NC	1.58
Upgradient	BY-UP-MW-3	11/01/2022	0	1.84	6.83	0.89	2 J	1.18	NC	1.18
Upgradient	BY-UP-MW-4	11/01/2022	0	2.01	4.59	0.948	1.99 J	1.52	NC	1.52
Downgradient	BY-GSA-MW-10	11/02/2022	0	0.792	11.5	0.804	3.53	0.64	NC	NC
Downgradient	BY-GSA-MW-5	11/02/2022	0	1.7	51.4	1.72	2.14	--	NC	NC
Downgradient	BY-GSA-MW-6	11/02/2022	0	1.23	36.9	1.37	1.98 J	3.68	NC	3.68
Downgradient	BY-GSA-MW-7	11/02/2022	0	0.389	2.35	1.35	2.25	2	NC	2
Downgradient	BY-GSA-MW-8	11/02/2022	0	0.257 J	5.34	0.881	3.34	4.76	NC	4.76
Downgradient	BY-GSA-MW-9	11/02/2022	0	0.312	12.2	0.934	4.76	1.36	NC	1.36
Downgradient	BY-GSA-PZ-11	11/02/2022	0	0.534	4.65	1.21	2.03	1.4	NC	1.4

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 11/01/2022 - 11/02/2022



General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Chloride mg/L
Upgradient	BY-UP-MW-1	11/01/2022	2.37
Upgradient	BY-UP-MW-2	11/01/2022	2.22
Upgradient	BY-UP-MW-3	11/01/2022	3.09
Upgradient	BY-UP-MW-4	11/01/2022	3.3
Downgradient	BY-GSA-MW-10	11/02/2022	3.07
Downgradient	BY-GSA-MW-5	11/02/2022	8.44
Downgradient	BY-GSA-MW-6	11/02/2022	6.58
Downgradient	BY-GSA-MW-7	11/02/2022	22.7
Downgradient	BY-GSA-MW-8	11/02/2022	5.08
Downgradient	BY-GSA-MW-9	11/02/2022	3.14
Downgradient	BY-GSA-PZ-11	11/02/2022	7.81

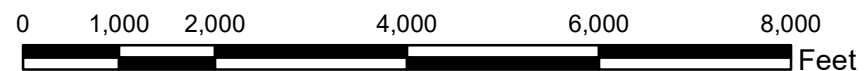
Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Figures



- Legend**
-  Property Boundary (Approximate)
 -  Gypsum Pond Boundary



SCALE 1:24000

DATE 11/5/2020

DRAWN BY KWR

CHECKED BY GBD

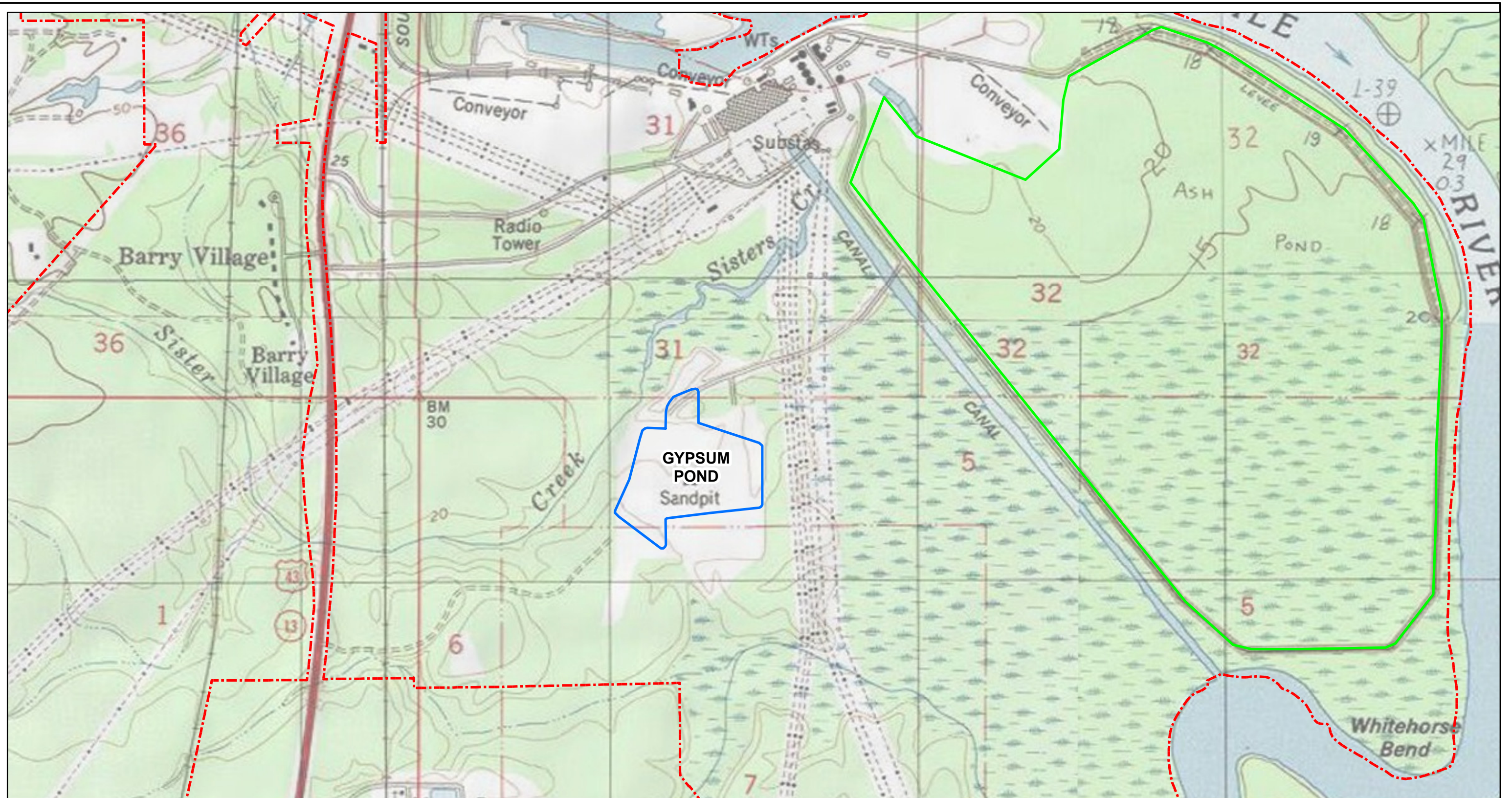
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SITE LOCATION MAP
PLANT BARRY GYPSUM POND

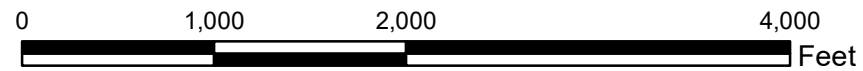
FIGURE NO

FIGURE 1





- Legend**
- Property Boundary (Approximate)
 - Ash Pond Boundary
 - Gypsum Storage Area Boundary



SCALE 1:12000

DATE 11/5/2020

DRAWN BY KWR


CHECKED BY GBD



DRAWING TITLE
**SITE TOPOGRAPHIC MAP
 PLANT BARRY GYPSUM POND**

FIGURE NO
FIGURE 2





- Legend**
-  Gypsum Pond
 -  Property Boundary (Approximate)

- Geologic Units**
-  Alluvial, coastal, and low terrace deposits (Qalt)
 -  Miocene Series undifferentiated (Tm)

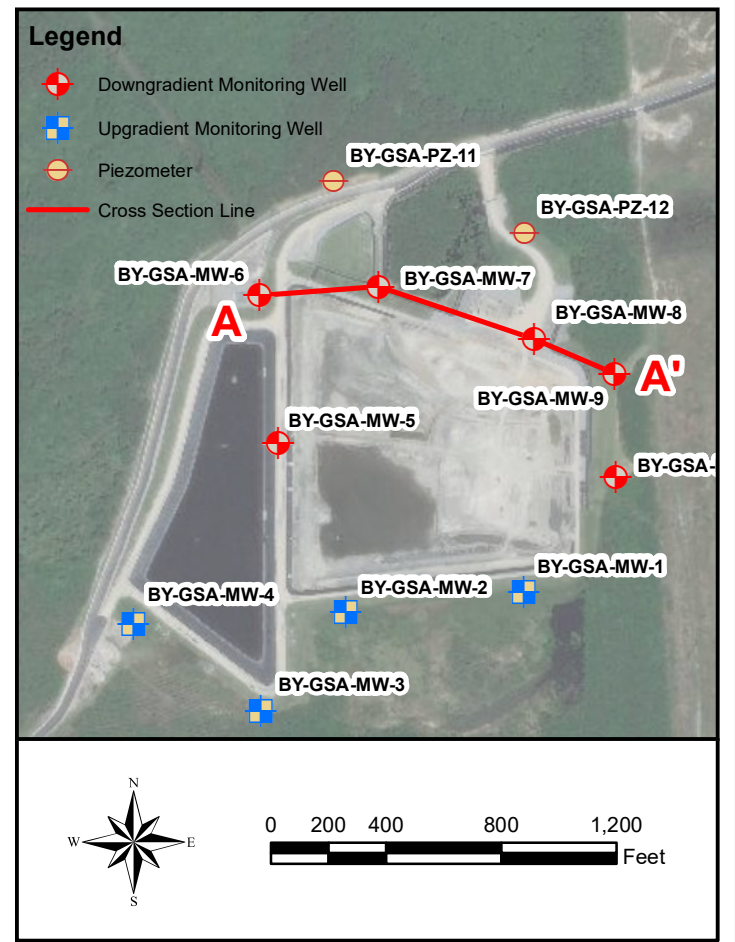
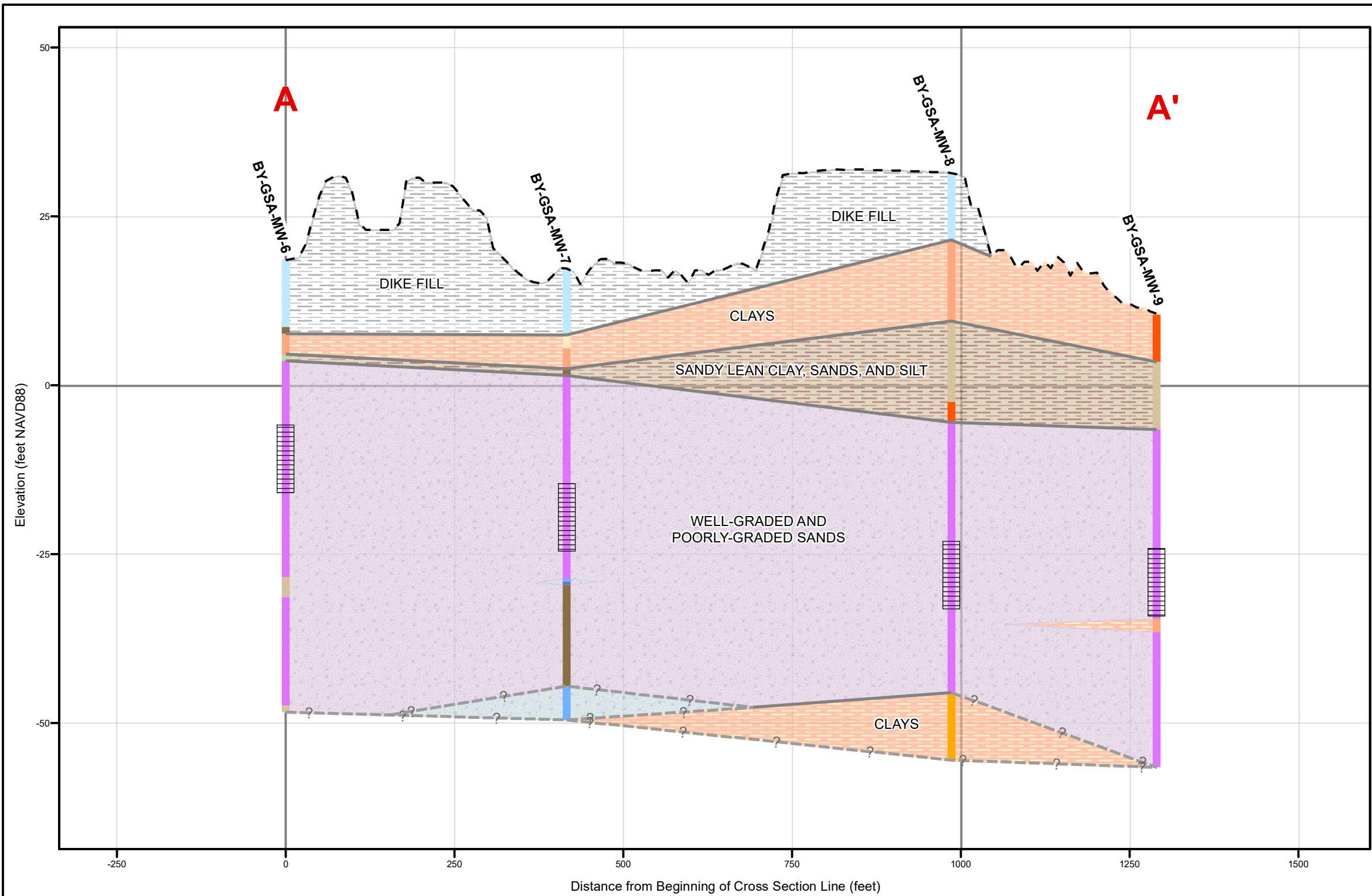


SCALE	1:20000
DATE	11/5/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE
**SITE GEOLOGIC MAP
 PLANT BARRY GYPSUM POND**

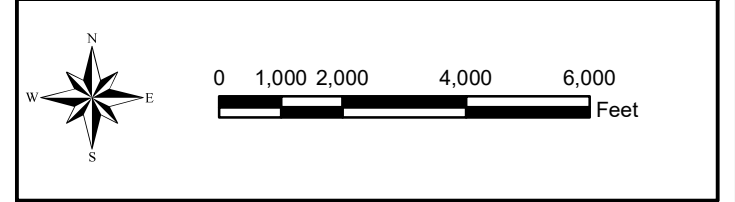
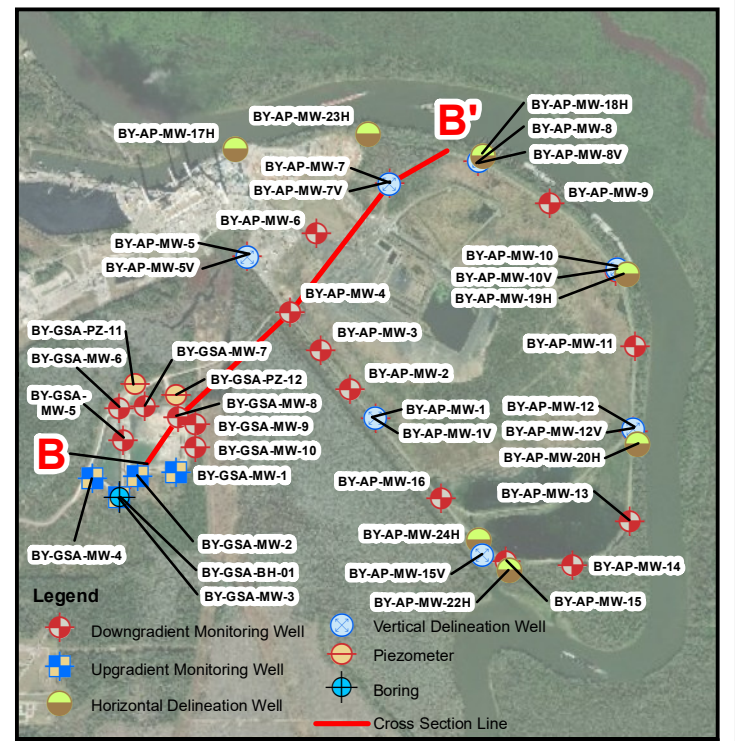
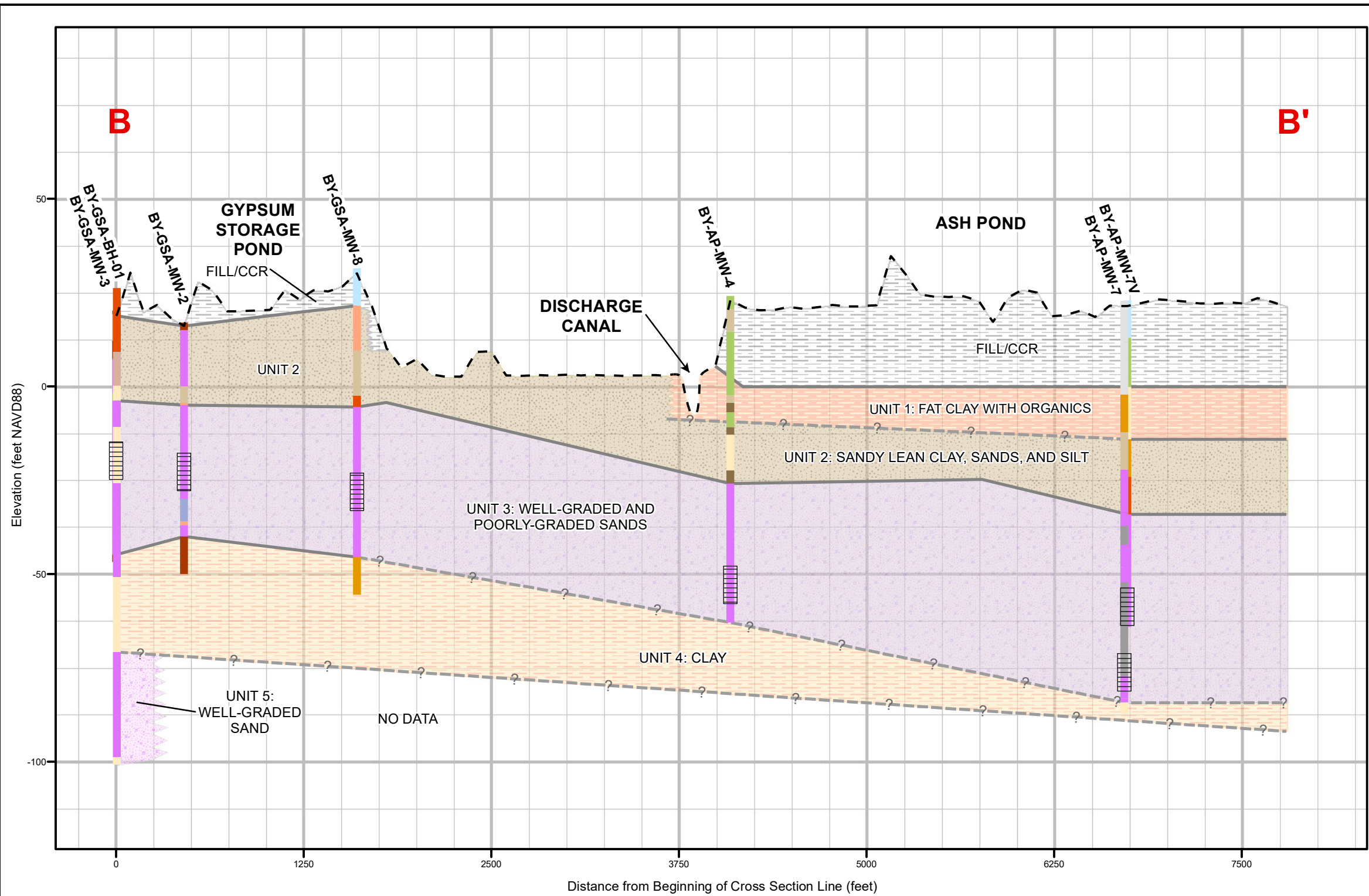
FIGURE NO
FIGURE 3





Notes: 1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Vertical exaggeration: 25x.

Legend		Borehole Description		Geologic Unit		SCALE	DRAWING TITLE	
— — —	Ground Surface Elevation	—	Hydroexcavation	—	Fill	As Shown	GEOLOGIC CROSS SECTION A - A' PLANT BARRY GYPSUM POND	
▨	Screened Interval	—	Fat Clay	—	Clays	DATE		
— · —	Unit Boundary (inferred)	—	Lean Clay	—	Sandy Lean Clay, Sands, and Silt	DRAWN BY	KWR	FIGURE NO
— / —	Unit Boundary	—	Sandy Fat Clay	—	Sands	CHECKED BY	GBD	
		—	Sandy Lean Clay	—	Gravels			Southern Company
		—	Silt					



Notes: 1. Source of ground surface elevation data: Lidar
 2. Source of Discharge Canal depth: Bathymetry
 3. NAVD88 indicates North American Vertical Datum of 1988.
 4. Vertical exaggeration: 25x.





Borehole Description		Geologic Unit	
Ground Surface Elevation	Hydroexcavation	Sandy Fat Clay	Clayey Silty Sand
Screen Interval	Fill	Sandy Lean Clay	Silty Sand
Unit Boundary (inferred)	No Recovery	Organic Silt or Clay	Well-graded and Poorly-graded Sands
Unit Boundary	Fat Clay	Silt	Well-graded and Poorly-graded Gravels
	Lean Clay	Clayey Sand	
		Fill	Unit 3: Well-graded and Poorly-graded Sands
		Unit 1: Fat Clay with Organics	Unit 4: Clay
		Unit 2: Sandy Lean Clay, Sands, and Silts	Unit 5: Well-graded Sand

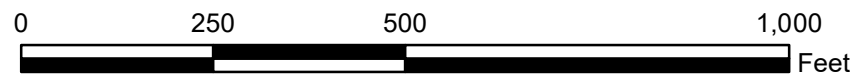
SCALE	As Shown
DATE	6/22/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE	
GEOLOGIC CROSS SECTION B - B' PLANT BARRY GYPSUM POND	
FIGURE NO	FIGURE 4B
Southern Company	



Legend

-  Downgradient Monitoring Well
-  Upgradient Monitoring Well
-  Piezometer
-  Gypsum Pond



SCALE 1:3000

DATE 7/26/2021

DRAWN BY KAR

CHECKED BY GBD

DRAWING TITLE

**MONITORING WELL LOCATION MAP
PLANT BARRY GYPSUM POND**

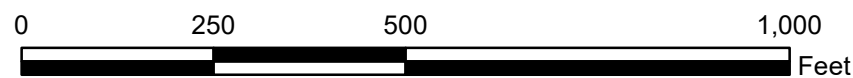
FIGURE NO

FIGURE 5





- Legend**
- ⊕ Downgradient Monitoring Well
 - ⊕ Upgradient Monitoring Well
 - ⊕ Piezometer
 - Potentiometric Surface Contour (ft NAVD)
 - Groundwater Flow Direction
 - Gypsum Pond
- BY-GSA-MW-1 Well ID
6.17 Groundwater Elevation



SCALE	1:3000
DATE	7/28/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
POTENTIOMETRIC SURFACE CONTOUR MAP MAY 23, 2022 PLANT BARRY GYPSUM POND	
FIGURE NO	FIGURE 6
Southern Company	



Legend

- ◆ Downgradient Monitoring Well
- ◆ Upgradient Monitoring Well
- Piezometer
- Potentiometric Surface Contour (ft NAVD)
- Groundwater Flow Direction
- Gypsum Pond

BY-GSA-MW-1 Well ID
5.04 Groundwater Elevation



SCALE 1:3000

DATE 12/22/2022

DRAWN BY KWR

CHECKED BY GBD

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
 OCTOBER 31, 2022
 PLANT BARRY GYPSUM POND

FIGURE NO
FIGURE 6B



Appendix A



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-UP-MW-1																	
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix III																			
Boron	mg/L	0.0212 J	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	0.0362 J	0.11	0.188	0.097 J	0.157	0.0999 J	0.0841 J
Calcium	mg/L	1.28	1.19	1.19	1.11	1.04	1.19	--	1.05	0.978	1.14	--	1.64	2.01	1.85	1.55	1.96	1.43	1.34
Chloride	mg/L	3.59	2.89	3.12	3.91	3.9	--	3.5	3.5	3.1	4	--	9.9	4.7	5.48	3.65	3.17	2.92	2.18
Fluoride	mg/L	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--	<0.032	0.04 J	0.1	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06	<0.06	<0.06
pH Field	SU	4.62	4.74	4.65	4.64	4.74	4.54	4.67	4.79	4.76	4.81	4.79	4.62	4.73	4.65	4.57	4.64	4.65	4.74
Sulfate	mg/L	8.59	8.27	8.66	9.74	10.2	--	8.3	6.6	7.6	8.4	--	5.9	22	23.3	17.5	24.3	16.5	16.3
TDS	mg/L	26.7	--	32.7	33.3	27.3	32	--	31.3	35.3	36.7	--	34	50.7	58	46	53.3	42	40.7
Appendix IV																			
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000925 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000336
Barium	mg/L	0.117	0.099	0.107	0.106	0.102	0.0944	--	0.0868	0.0799	--	0.0884	0.137	0.157	0.166	0.129	0.176	0.124	0.123
Beryllium	mg/L	<0.0006	<0.0006	0.000612 J	<0.0006	<0.0006	<0.0006	--	0.00069 J	<0.0006	--	<0.0006	<0.0006	0.000856 J	<0.0006	<0.0006	<0.0006	<0.0006	0.000694 J
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000296 J
Cobalt	mg/L	0.0035 J	0.0038 J	0.00427 J	0.00348 J	0.00338 J	0.00308 J	--	0.00314 J	0.0036 J	--	0.00586 J	0.00702 J	0.0157	0.0109	0.0129	0.0123	0.00697	0.00611
Combined Radium 226+228	pCi/L	2.8971 U	1 U	0.841	1.74	1.47	0.952	--	0.768	1.04	--	0.513 U	0.916	1.37	1.57	0.905	1.77	1.77	0.639 U
Fluoride	mg/L	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--	<0.032	0.04 J	0.1	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06	<0.06	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	9.79e-005 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



Appendix A. Analytical Data Summary Plant Barry Gypsum Pond

Analyte	Units	BY-UP-MW-1			BY-UP-MW-2															
		10/19/2021	05/31/2022	11/01/2022	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	
Appendix III																				
Boron	mg/L	0.0708 J	0.0567 J	0.0501 J	0.0252 J	<0.02	0.0202 J	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	0.0207 J	<0.03	<0.03	
Calcium	mg/L	1.17	1.13	1.04	1.11	1.09	1.16	1.08	1.03	1.23	--	1.28	1.25	1.6	--	1.58	1.49	1.59	1.7	
Chloride	mg/L	2.37	1.93	2.37	3.99	4.08	4.28	4.26	4.26	--	4.1	5	3.9	4.3	--	3.7	3.2	2.93	2.75	
Fluoride	mg/L	<0.06	<0.06	<0.06	0.02 J	0.021 J	0.06 J	0.05 J	0.04 J	--	<0.032	0.04 J	0.04 J	0.043 J	0.04 J	0.04 J	<0.032	<0.05	<0.05	
pH Field	SU	4.67	3.89	4.6	4.79	4.84	4.81	4.76	4.84	4.6	4.71	4.8	4.72	4.71	4.67	4.61	4.72	4.58	4.43	
Sulfate	mg/L	15.5	12.8	11.3	7.2	7.22	7.92	8.17	7.99	--	6.1	5	5.3	4.9 J	--	4.2 J	3.7 J	5.94	6.04	
TDS	mg/L	40	32	33.3	30.7	--	35.3	27.3	--	32.7	--	30.7	34.7	39.3	--	42	31.3	40	41.3	
Appendix IV																				
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000898 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	
Arsenic	mg/L	0.000346	0.000237	0.000131 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	
Barium	mg/L	0.103	0.1	0.0807	0.111	0.0875	0.0979	0.108	0.103	0.109	--	0.125	0.108	--	0.153	0.167	0.158	0.172	0.183	
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	0.00093 J	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	0.000801 J	<0.0006	<0.0006	
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Chromium	mg/L	0.000301 J	0.000334 J	0.000212 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	0.00596 J	<0.002	<0.002	<0.002	<0.002	
Cobalt	mg/L	0.00517	0.00487	0.00394	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	0.0021 J	<0.002	0.00209 J	0.00248 J	0.00244 J	
Combined Radium 226+228	pCi/L	1.77	1.34	1.11	1 U	1 U	0.652	0.411 U	1	0.398 U	--	0.66	0.639	--	0.669 U	1.06	0.636	0.579 U	1.33	
Fluoride	mg/L	<0.06	<0.06	<0.06	0.02 J	0.021 J	0.06 J	0.05 J	0.04 J	--	<0.032	0.04 J	0.04 J	0.043 J	0.04 J	0.04 J	<0.032	<0.05	<0.05	
Lead	mg/L	0.000115 J	<6.8e-005	0.00017 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	

Notes:

1. mg/L - Milligrams per Liter

2. pCi/L - picocuries per Liter

3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-UP-MW-2						BY-UP-MW-3											
		03/31/2020	09/09/2020	05/11/2021	10/19/2021	05/31/2022	11/01/2022	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018
Appendix III																			
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02
Calcium	mg/L	1.43	1.5	1.39	1.32	1.24	1.23	1.77	1.68	1.68	1.62	1.53	1.65	--	1.58	1.55	1.71	--	1.76
Chloride	mg/L	2.72	2.32	2.16	2.08	2.17	2.22	3.68	3.72	3.66	3.7	3.77	--	3.7	4.6	3.4	3.9	--	4.1
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.016 J	0.052 J	0.038 J	0.03 J	--	<0.032	<0.032	0.1	<0.032	<0.032	<0.032
pH Field	SU	4.6	4.67	4.29	4.6	3.31	4.42	4.96	4.94	4.96	4.92	4.98	4.74	4.9	4.98	4.94	4.93	4.91	4.87
Sulfate	mg/L	6.83	6.08	7.92	7.48	8.09	7.11	7.44	7.66	8.16	8.43	8.47	--	7.4	6.3	7.1	7.3	--	6.9
TDS	mg/L	40	40.7	35.3	36	30.7	36	40	32	38.7	31.3	26.7	30	--	30.7	32.7	38	--	35.3
Appendix IV																			
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000911 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	0.000136 J	0.000122 J	8.79e-005 J	0.000379	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.171	0.172	0.165	0.145	0.153	0.145	0.0862	0.0718	0.0754	0.0768	0.0727	0.0698	--	0.0723	0.07	--	0.0747	0.0877
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	0.000413 J	0.000421 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	0.00136	0.00135	0.0012	0.00209	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	0.00229 J	<0.002
Cobalt	mg/L	0.00224 J	0.00219 J	0.00194	0.00192	0.00187	0.0016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Combined Radium 226+228	pCi/L	0.814	0.653 U	0.945 U	1.85	1.38	1	1 U	1 U	0.342 U	0.702	0.791	0.0613 U	--	0.974	0.748	--	0.558 U	0.296 U
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.016 J	0.052 J	0.038 J	0.03 J	--	<0.032	<0.032	0.1	<0.032	<0.032	<0.032
Lead	mg/L	<0.001	<0.001	0.000118 J	0.0001 J	7.81e-005 J	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	0.000602 J	<0.000508	0.000633 J	0.000658 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



Appendix A. Analytical Data Summary Plant Barry Gypsum Pond

Analyte	Units	BY-UP-MW-3									BY-UP-MW-4								
		11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022	02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017
Appendix III																			
Boron	mg/L	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0257 J	<0.02	<0.02	<0.02	0.022 J	<0.02	--	<0.02	<0.02
Calcium	mg/L	1.69	1.74	1.86	1.92	1.97	2.06	2.1	1.97	1.86	1.42	1.31	1.35	1.31	1.22	1.36	--	1.24	1.28
Chloride	mg/L	3.5	3.58	3.64	3.47	3.47	3.42	3.41	3.41	3.09	3.5	3.63	3.6	3.54	3.68	--	4.6	3.9	3.4
Fluoride	mg/L	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.015 J	0.05 J	0.036 J	0.025 J	--	<0.032	<0.032	<0.032
pH Field	SU	4.94	4.8	4.52	4.4	4.76	4.53	4.55	3.54	4.12	4.74	4.86	4.88	4.91	4.95	4.71	4.83	4.93	4.9
Sulfate	mg/L	6.5	7.81	7.62	7.98	7.13	7.73	7.07	7.18	6.83	7.04	6.74	7.04	7.57	6.62	--	7	5.6	6.6
TDS	mg/L	36	37.3	36.7	39.3	42.7	44	36	31.3	36	--	--	28.7	25.3	--	26	--	--	42.7
Appendix IV																			
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	0.000606 J	<0.0006	<0.0006	<0.0006	<0.0006	0.000928 J	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	8.69e-005 J	<8.1e-005	<8.1e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.0804	0.0831	0.089	0.0927	0.0919	0.0981	0.0982	0.0992	0.0963	0.0973	0.0802	0.0862	0.0841	0.0715	0.0825	--	0.0777	0.078
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00146	0.00135	0.00139	0.00112	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00142	0.00146	0.00152	0.00142	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Combined Radium 226+228	pCi/L	0.357 U	0.275 U	0.458 U	0.941	1.05	0.521 U	1.75	1.67	0.53 U	2.1138	1 U	0.757	0.992	0.905	1.08	--	1.18	1.1
Fluoride	mg/L	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.015 J	0.05 J	0.036 J	0.025 J	--	<0.032	<0.032	<0.032
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-UP-MW-4											BY-GSA-MW-5							
		09/12/2017	01/23/2018	05/01/2018	11/26/2018	05/28/2019	10/02/2019	03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022	02/23/2016	04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	
Appendix III																				
Boron	mg/L	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.163	0.361	0.169	0.0858 J	0.0778 J	0.077 J	
Calcium	mg/L	1.47	--	1.47	1.52	1.6	1.7	1.78	1.94	1.93	2.01	2.02	1.59	2.42	4.65	3.1	2.19	1.97	1.73	
Chloride	mg/L	4.3	--	3.8	3.6	3.6	3.5	3.34	3.29	3.33	3.32	3.31	3.31	3.86	4.46	3.74	3.5	3.5	--	
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.04 J	0.066 J	0.046 J	0.034 J	--	
pH Field	SU	4.82	4.85	4.8	4.88	4.73	4.67	4.51	4.75	4.67	4.38	3.97	4.74	4.76	4.75	4.77	4.82	4.82	4.8	
Sulfate	mg/L	7.2	--	5.9	5.1	7.1	6.88	10.8	6.52	6.8	6.58	7.94	4.59	12.5	28.6	18.7	13.8	12.2	--	
TDS	mg/L	26.7	--	34.7	32.7	31.3	36	36.7	39.3	46.7	36	36.7	38	38	62	51.3	38	28.7	34	
Appendix IV																				
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000866 J	
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017 J	<0.001	0.000217	0.000193 J	0.000203	<8.1e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Barium	mg/L	--	0.0825	0.102	0.0994	0.102	0.111	0.129	0.125	0.125	0.124	0.129	0.112	0.109	0.135	0.0892	0.083	0.0859	0.0779	
Beryllium	mg/L	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Chromium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	0.00604 J	<0.002	0.00159	0.00146	0.00156	0.00124	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Cobalt	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00137	0.00139	0.00138	0.00176	<0.002	0.00278 J	<0.002	<0.002	<0.002	<0.002	
Combined Radium 226+228	pCi/L	--	1.32 U	1.19	0.863	0.474 U	0.624 U	1.09	1.27	0.969 U	2.19	1.47	1.36	1 U	1 U	1.03	0.696	0.966	0.724	
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.04 J	0.066 J	0.046 J	0.034 J	--	
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	0.00126 J	<0.001	0.000159 J	0.00012 J	0.000173 J	8.6e-005 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	0.00572 J	0.0141	0.00698 J	0.0042 J	0.00386 J	0.00247 J	
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-GSA-MW-5															BY-GSA-MW-6		
		03/21/2017	05/02/2017	06/06/2017	09/13/2017	01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/19/2021	05/31/2022	11/02/2022	02/23/2016	04/18/2016	06/06/2016
Appendix III																			
Boron	mg/L	--	0.0602 J	0.0442 J	0.0411 J	--	0.0334 J	0.0265 J	<0.03	<0.03	<0.03	0.521	0.511	0.243	0.931	1.69	0.638	0.908	0.733
Calcium	mg/L	--	1.74	1.66	1.61	--	1.44	1.3	1.25	1.33	1.26	3.24	7	2.75	8.6	11.1	18.3	23.2	19.7
Chloride	mg/L	2.8	3.9	3.4	3.9	--	3.5	3.7	3.69	3.49	3.45	6.23	5.89	4.81	7.83	8.44	6.06	6.13	5.52
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.06 J	0.138 J	0.148 J
pH Field	SU	4.86	4.89	4.86	4.89	4.86	4.87	4.92	4.8	4.44	4.83	4.77	4.61	4.79	4.61	4.42	6.59	6.21	5.97
Sulfate	mg/L	8.6	8	8.6	7.6	--	6	5.5	6.5	6.55	6.34	15.1	38.2	12.3	48.7	51.4	36.5	80.2	0.498 J
TDS	mg/L	--	37.3	36.7	37.3	--	30.7	--	26	34.7	32	55.3	85.3	48.7	104	115	128	166	131
Appendix IV																			
Antimony	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	0.000633 J
Arsenic	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000501	0.000199 J	0.000527	0.000548	<0.001	<0.001	<0.001
Barium	mg/L	--	0.0799	0.0788	--	0.0746	0.085	0.072	0.0684	0.0728	0.0718	0.181	0.106	0.0998	0.224	0.135	0.237	0.263	0.206
Beryllium	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000575 J	<0.000406	0.000731 J	0.000937 J	<0.0006	0.000681 J	<0.0006
Cadmium	mg/L	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	8.67e-005 J	0.000137 J	0.000162 J	0.000189 J	<0.0002	<0.0002	<0.0002
Chromium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00221 J	0.00232	0.00268	0.00266	0.00259	0.00209 J	0.00324 J	0.0031 J
Cobalt	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00227 J	0.0046	0.00217	0.00606	0.00705	<0.002	0.00338 J	0.00361 J
Combined Radium 226+228	pCi/L	--	0.587	0.591	--	0.566 U	0.401	0.611	0.391 U	0.954	0.525	0.845	0.465 U	0.719 U	2.31	1.24	1.2261 U	1.92151 U	1.47
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.06 J	0.138 J	0.148 J
Lead	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	9.94e-005 J	0.00026	0.00014 J	0.000144 J	<0.001	<0.001	<0.001
Lithium	mg/L	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01
Mercury	mg/L	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000362 J	<0.0003	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	0.000105 J	<0.000102	<0.000102	<0.002	<0.002	<0.002
Selenium	mg/L	--	0.00284 J	0.003 J	--	0.00201 J	<0.002	<0.002	<0.002	<0.002	<0.002	0.0052 J	0.0163	0.0029	0.0215	0.0247	0.0266	0.0529	0.0382
Thallium	mg/L	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-GSA-MW-6																	
		08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/12/2017	01/22/2018	05/01/2018	11/26/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/18/2021	05/31/2022	11/02/2022
Appendix III																			
Boron	mg/L	0.448	0.249	0.121	--	0.0695 J	0.0509 J	0.0709 J	--	0.0365 J	0.0836 J	0.556	0.186	0.304	0.362	0.876	0.987	0.685	0.746
Calcium	mg/L	10.9	8.74	7.89	--	5.81	4.72	4.39	--	4.66	3.41	10	4.94	7.56	6.38	13.5	9.06	9.98	7.78
Chloride	mg/L	5.35	4.55	--	3.5	4.8	3.6	4.3	--	3.8	3.5	6.26	4.13	4.95	5.71	7.77	10	7.22	6.58
Fluoride	mg/L	0.072 J	0.049 J	--	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.0591 J	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH Field	SU	5.99	5.94	5.92	5.74	5.82	5.77	5.64	5.66	5.71	5.58	5.21	5.4	5.51	5.15	5.46	5.28	4.98	4.84
Sulfate	mg/L	27.8	22.5	--	15	11	10	7.5	--	8.5	7.4	32.7	15.9	21.8	17.7	37.1	24.7	37.9	36.9
TDS	mg/L	86.7	67.3	60.7	--	50	47.3	42.7	--	44	38	77.3	50.7	58	59.3	98.7	77.3	93.3	83.3
Appendix IV																			
Antimony	mg/L	<0.0006	<0.0006	0.000926 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000821	0.000317	0.000475	0.000306
Barium	mg/L	0.165	0.148	0.123	--	0.098	0.0844	--	0.0593	0.081	0.0657	0.17	0.0985	0.142	0.0981	0.159	0.146	0.205	0.204
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	--	0.000704 J	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000763 J	<0.000406	0.000604 J	0.000408 J
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000154 J	0.000111 J	0.000242	0.000147 J
Chromium	mg/L	0.00227 J	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00223 J	<0.002	0.00273 J	0.00237 J	0.0034	0.00335	0.00366	0.00321
Cobalt	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00301 J	<0.002	0.0031 J	0.00296 J	0.0054	0.00552	0.00631	0.00684
Combined Radium 226+228	pCi/L	1.91	0.966	1.01	--	1.41	0.476	--	0.814 U	0.931	0.815	2.08	0.836	1.54	0.402 U	2.47	2.03	2.22	1.7
Fluoride	mg/L	0.072 J	0.049 J	--	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.0591 J	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000213	0.000112 J	0.000111 J	0.000146 J
Lithium	mg/L	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000338 J	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102
Selenium	mg/L	0.014	0.0105	0.0104	--	0.00778 J	0.00576 J	--	0.00287 J	0.00367 J	0.00286 J	0.0089 J	0.00472 J	0.00658 J	0.0052 J	0.0123	0.00672	0.0124	0.0156
Thallium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-GSA-MW-7																	
		02/23/2016	04/18/2016	06/06/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/12/2017	01/22/2018	05/01/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021
Appendix III																			
Boron	mg/L	0.0314 J	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.4	1.2	1.48	1.13	1.45	1.95	--	0.908	1.29	1.44	--	0.695	0.798	0.973	0.929	1.32	1.12	1.63
Chloride	mg/L	4.08	4.14	4.09	4.6	8.32	--	5.6	4.8	6.3	8.5	--	4	4.3	4.63	5.02	10.5	8.74	17.2
Fluoride	mg/L	0.02 J	0.018 J	0.051 J	0.039 J	0.025 J	--	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06
pH Field	SU	5.12	5.11	5.14	5.06	5.01	4.74	5.04	5.08	5.07	5.03	5.06	4.89	5.05	4.83	5.04	4.91	4.39	4.84
Sulfate	mg/L	3.82	3.48	3.76	3.62	2.58	--	3.3 J	2.5 J	3.1 J	3 J	--	1.6 J	1.9 J	4.86	4.6	4.29	3.59	3.58
TDS	mg/L	--	--	32.7	25.3	28	45.3	--	26.7	28	35.3	--	30.7	30.7	33.3	30.7	39.3	42	52.7
Appendix IV																			
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00119 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000177 J
Barium	mg/L	0.0546	0.0421	0.0457	0.0469	0.0611	0.0801	--	0.0388	0.0437	--	0.0399	0.04	0.0427	0.0524	0.0492	0.0788	0.0615	0.1
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000464 J
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00139
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00192
Combined Radium 226+228	pCi/L	1 U	1 U	0.427	0.869	0.927	0.649	--	0.804	0.136 U	--	0.726 U	0.63	0.109 U	-0.428 U	0.43 U	0.939	1.13	1.09
Fluoride	mg/L	0.02 J	0.018 J	0.051 J	0.039 J	0.025 J	--	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	7.98e-005 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-GSA-MW-7			BY-GSA-MW-8														
		10/18/2021	06/01/2022	11/02/2022	02/23/2016	04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019
Appendix III																			
Boron	mg/L	<0.03	<0.03	<0.03	<0.02	<0.02	<0.02	<0.02	0.0207 J	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03
Calcium	mg/L	1.56	1.3	1.95	0.618	0.505	0.587	0.495 J	0.503	0.554	--	0.548	0.545	0.723	--	0.751	0.743	0.789	0.882
Chloride	mg/L	16.8	14.7	18.8	4.47	4.74	4.52	4.71	4.73	--	4.9	5.7	4.1	4.9	--	4.1	4.9	4.43	4.32
Fluoride	mg/L	<0.06	<0.06	<0.06	0.02 J	0.019 J	0.053 J	0.038 J	0.028 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05
pH Field	SU	5.05	4.56	4.75	4.92	5.16	5.11	5.14	5.09	5.01	5.07	5.13	5.05	5.06	5.02	4.99	5.06	4.92	4.86
Sulfate	mg/L	2.54	3.4	2.35	3.33	3.78	4.44	4.29	4.27	--	3.6 J	2.9 J	2.9 J	3.2 J	--	2.6 J	2.8 J	4.46	4.96
TDS	mg/L	42.7	41.3	56	30	27.3	32	--	28	26	--	25.3	--	31.3	--	30.7	35.3	28.7	37.3
Appendix IV																			
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000885 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	0.000233	<8.1e-005	<8.1e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.0871	0.0856	0.129	0.0352	0.0251	0.0299	0.0287	0.0309	0.0282	--	0.0309	0.0287	--	0.0351	0.0398	0.0388	0.0412	0.0453
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	0.00134	0.00157	0.0012	<0.002	0.00201 J	<0.002	0.00205 J	0.00218 J	<0.002	--	0.00208 J	0.0022 J	--	0.00258 J	0.00202 J	<0.002	0.00209 J	0.00223 J
Cobalt	mg/L	0.00167	0.00162	0.0023	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226+228	pCi/L	0.69 U	0.99	1.09	1 U	1 U	0.69	0.687	0.62	0.266 U	--	0.853	0.477	--	0.411 U	0.718	0.691	0.311 U	0.969
Fluoride	mg/L	<0.06	<0.06	<0.06	0.02 J	0.019 J	0.053 J	0.038 J	0.028 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05
Lead	mg/L	7.62e-005 J	7.97e-005 J	7.08e-005 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	0.00031 J	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.000508	0.000581 J	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



Appendix A. Analytical Data Summary Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-8						BY-GSA-MW-9												
		03/30/2020	09/08/2020	05/12/2021	10/19/2021	06/01/2022	11/02/2022	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/23/2018	05/01/2018	
Appendix III																				
Boron	mg/L	<0.03	<0.03	<0.03	0.0303 J	<0.03	0.0339 J	0.0297 J	0.0269 J	0.0271 J	0.0272 J	<0.02	0.0269 J	--	0.027 J	<0.02	0.032 J	--	0.0302 J	
Calcium	mg/L	0.841	0.981	1.02	1.01	0.94	1.04	1.15	1.04	1.22	1.18	1.12	1.23	--	1.2	1.17	1.25	--	1.25	
Chloride	mg/L	4.38	4.61	5.25	5.34	5.38	5.08	4.1	3.11	3.72	4.8	4.71	--	5.3	6.6	5.2	6.5	--	5.7	
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.05 J	0.039 J	0.085 J	0.078 J	0.071 J	--	0.05 J	0.06 J	0.07 J	0.08 J	0.07 J	0.07 J	
pH Field	SU	4.92	4.35	4.83	4.77	4.03	3.84	4.56	4.62	4.64	4.58	4.58	4.44	4.57	4.64	4.58	4.54	4.53	4.46	
Sulfate	mg/L	4.84	4.56	4.7	4.2	5.11	5.34	7.71	7.85	7.76	8.22	9.29	--	7.1	5.7	7.1	7.3	--	7.1	
TDS	mg/L	30	38	40	33.3	30.7	34	25.3	28	34.7	26.7	32	32.7	--	30.7	--	37.3	--	39.3	
Appendix IV																				
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000859 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<6.8e-005	0.000164 J	<8.1e-005	<8.1e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	
Barium	mg/L	0.0444	0.0494	0.0488	0.0452	0.0477	0.0511	0.121	0.0926	0.0998	0.106	0.106	0.111	--	0.111	0.107	--	0.122	0.139	
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	
Chromium	mg/L	0.00275 J	0.00224 J	0.00218	0.00246	0.00226	0.00205	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	
Cobalt	mg/L	<0.002	<0.002	0.000437	0.000495	0.00043	0.000514	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	
Combined Radium 226+228	pCi/L	0.397 U	0.0249 U	1.29	1.54	1.37	1.06	1 U	3.81872	0.941	0.98	1.06	1.15	--	1.31	1.12	--	1.16 U	0.961	
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.05 J	0.039 J	0.085 J	0.078 J	0.071 J	--	0.05 J	0.06 J	0.07 J	0.08 J	0.07 J	0.07 J	
Lead	mg/L	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	
Lithium	mg/L	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	
Molybdenum	mg/L	<0.002	<0.002	<6.8e-005	7.96e-005 J	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	
Selenium	mg/L	<0.002	<0.002	<0.000507	0.000523 J	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	

Notes:

1. mg/L - Milligrams per Liter

2. pCi/L - picocuries per Liter

3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-GSA-MW-9									BY-GSA-MW-10								
		11/26/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	06/01/2022	11/02/2022	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017
Appendix III																			
Boron	mg/L	0.139	0.141	0.116	0.112	0.0873 J	0.0834 J	0.0966 J	0.0933 J	0.0809 J	0.0294 J	0.0257 J	0.0257 J	0.0317 J	<0.02	0.0243 J	--	0.0259 J	<0.02
Calcium	mg/L	1.61	1.8	1.85	1.67	1.79	1.82	1.75	1.62	1.67	0.795	0.761	0.799	0.788	0.788	0.755	--	0.763	0.706
Chloride	mg/L	11	8.56	8.48	6.87	7.94	8.77	6.33	4.29	3.14	3.57	3.12	3.14	2.93	2.96	--	4.4	3.7	3.3
Fluoride	mg/L	0.07 J	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.05 J	0.05 J	0.098 J	0.089 J	0.092 J	--	0.06 J	0.07 J	0.07 J
pH Field	SU	4.5	4.45	4.49	4.45	4.46	4.43	4.34	4.49	3.93	4.67	4.79	4.73	4.68	4.75	4.65	4.68	4.75	4.7
Sulfate	mg/L	7.3	12.3	11.6	12.5	10.7	12.5	12.6	13	12.2	9.29	9.92	10	11.1	11.7	--	9	7.9	8.4
TDS	mg/L	48	60	46.7	37.3	50.7	50.7	48	39.3	34.7	37.3	34	38.7	34	31.3	--	--	29.3	36
Appendix IV																			
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000838 J	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.000173 J	<6.8e-005	0.000105 J	0.000146 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.152	0.155	0.16	0.165	0.17	0.184	0.151	0.14	0.141	0.134	0.114	0.118	0.126	0.127	0.1	--	0.114	0.0991
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.000783 J	0.000812 J	0.00104	0.000831 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00177	0.00156	0.00129	0.00118	0.00247 J	0.00241 J	0.00247 J	0.00251 J	0.00272 J	<0.002	--	0.00205 J	0.00201 J
Combined Radium 226+228	pCi/L	1.72	2.2	2	1.88	2.11	1.94	3.15	2.05	1.93	1 U	1 U	1.03	1.05	1.36	0.847	--	0.649	1.4
Fluoride	mg/L	0.07 J	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.05 J	0.05 J	0.098 J	0.089 J	0.092 J	--	0.06 J	0.07 J	0.07 J
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.000288	0.000253	0.000232	0.000233	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00128	0.00118	0.00204	0.00185	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter

2. pCi/L - picocuries per Liter

3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)



**Appendix A. Analytical Data Summary
Plant Barry Gypsum Pond**

Analyte	Units	BY-GSA-MW-10											BY-GSA-PZ-11							
		09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	06/01/2022	11/02/2022	03/31/2020	09/08/2020	05/12/2021	10/19/2021	06/01/2022	11/02/2022	
Appendix III																				
Boron	mg/L	0.0394 J	--	0.0338 J	0.0484 J	0.0669 J	0.0671 J	0.0442 J	0.0509 J	0.0423 J	0.0444 J	0.0493 J	0.0504 J	0.0864 J	0.0638 J	0.0742 J	0.0551 J	0.0564 J	0.0355 J	
Calcium	mg/L	0.873	--	1.05	0.922	1.07	1.32	0.98	1.1	1.06	0.977	1.04	1.15	0.663	0.724	0.861	0.941	1.16	1.31	
Chloride	mg/L	5.1	--	4	3.8	4.34	4.34	3.89	4.11	3.94	3.79	3.35	3.07	4.13	3.96	4.89	5.02	7.97	7.81	
Fluoride	mg/L	0.08 J	0.08 J	0.09 J	0.08 J	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	
pH Field	SU	4.71	4.6	4.61	4.65	4.54	4.6	4.55	4.58	4.4	4.48	4.56	4.39	4.91	4.12	4.93	4.8	4.74	4.57	
Sulfate	mg/L	8.7	--	10	8.3	11.1	13.2	11.1	9.28	11	10.1	11.4	11.5	3.16	3.61	4.62	4.92	4.75	4.65	
TDS	mg/L	35.3	--	32	31.3	43.3	36	33.3	39.3	42.7	39.3	40.7	36.7	--	29.3	40	37.3	35.3	37.3	
Appendix IV																				
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000129 J	0.000128 J	8.93e-005 J	<8.1e-005	<0.001	<0.001	0.000111 J	0.000126 J	<8.1e-005	8.52e-005 J	
Barium	mg/L	--	0.119	0.132	0.112	0.125	0.136	0.122	0.125	0.121	0.115	0.136	0.133	0.0499	0.05	0.0597	0.0599	0.0821	0.0819	
Beryllium	mg/L	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	
Chromium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000695 J	0.000793 J	0.000893 J	0.000663 J	0.00249 J	0.00253 J	0.00281	0.00336	0.00292	0.00261	
Cobalt	mg/L	--	0.00229 J	0.00216 J	0.00205 J	0.00261 J	0.00262 J	0.00238 J	0.00241 J	0.00237	0.00238	0.0027	0.00249	<0.002	<0.002	0.00101	0.00117	0.00143	0.00144	
Combined Radium 226+228	pCi/L	--	1.36 U	1.03	1.04	0.548 U	2.19	1.01	1.32	2.02	1.6	2.27	1.34	0.968	0.468 U	0.515 U	0.87 U	1.13	0.625 U	
Fluoride	mg/L	0.08 J	0.08 J	0.09 J	0.08 J	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000113 J	9.96e-005 J	0.000102 J	0.000122 J	<0.001	<0.001	0.000208	0.000138 J	<6.8e-005	<6.8e-005	
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000778 J	0.000832 J	0.0011	0.00133	<0.002	<0.002	0.00111	0.00114	0.00132	0.00152	
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL)

Appendix B



Appendix B. Historical Groundwater Elevations Summary

Plant Barry Gypsum Storage Area

02/22/2016 - 10/31/2022

Well	Hydraulic Location	Geologic Unit	Measure Date											
			02/22/16	04/18/16	06/06/16	08/29/16	10/17/16	01/30/17	03/20/17	05/01/17	06/05/17	09/12/17	01/22/18	04/30/18
BY-UP-MW-1	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	7.73	7.92	5.81	5.13	4.59	6.94	5.42	5.51	6.64	5.45	4.75	6.83
BY-UP-MW-2	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	7.55	7.77	5.75	5.04	4.50	6.82	5.30	5.48	6.45	5.30	4.68	6.66
BY-UP-MW-3	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	8.19	8.45	6.52	5.78	5.19	7.55	6.04	6.16	7.39	6.16	5.46	7.19
BY-UP-MW-4	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	7.83	8.13	6.21	5.47	4.93	7.25	5.71	5.98	6.87	5.74	5.18	6.99
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	7.08	7.41	5.28	4.61	4.09	6.52	4.78	5.17	5.77	8.59	4.18	6.42
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	6.49	6.96	4.63	4.02	3.47	6.14	4.08	4.73	5.06	3.87	3.56	6.02
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.57	6.97	4.63	4.02	3.47	6.16	4.10	4.64	5.08	3.80	3.47	6.00
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.97	7.21	4.98	4.26	3.79	6.36	4.52	4.90	5.48	4.22	3.82	6.28
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.68	7.02	4.81	4.14	3.65	6.23	4.37	4.75	5.48	4.17	3.72	6.10
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	7.08	7.40	5.22	4.55	4.05	6.57	4.82	5.04	5.96	4.69	4.15	6.41
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.20	6.71	4.30	3.63	3.00	5.95	3.71	4.42	4.74		3.15	5.96
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	6.68	7.08	4.74	4.05	3.51	NM	4.19	4.71	5.20	3.82	3.52	6.18

Notes:

(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.

(2) NM = Not Measured



Appendix B. Historical Groundwater Elevations Summary

Plant Barry Gypsum Storage Area

02/22/2016 - 10/31/2022

Well	Hydraulic Location	Geologic Unit	Measure Date										
			08/27/18	11/26/18	05/28/19	10/02/19	03/30/20	09/08/20	05/24/21	10/18/21	05/23/22	05/31/22	10/31/22
BY-UP-MW-1	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	5.22	5.84	6.60	4.78	8.38	5.31	7.13	6.64	6.17	NM	5.04
BY-UP-MW-2	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	5.06	5.73	6.32	4.71	8.05	5.16	6.80	6.40	6.03	NM	5.00
BY-UP-MW-3	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	5.76	6.40	7.02	5.37	8.54	5.83	7.49	7.19	6.75	NM	5.79
BY-UP-MW-4	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	5.47	6.13	6.57	5.16	8.20	5.53	6.99	6.68	6.37	NM	5.53
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	4.61	5.30	5.62	4.35	7.44	4.55	5.95	5.44	NM	6.12	4.53
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	4.07	4.72	4.74	3.85	6.91	4.00	5.17	4.78	NM	5.74	4.07
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	3.99	4.77	4.84	3.84	6.86	3.91	5.19	4.76	NM	5.72	3.89
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	4.34	5.15	5.36	4.07	7.21	4.31	5.75	5.28	NM	6.02	4.20
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	4.26	5.07	5.29	3.91	7.17	4.34	5.80	5.32	NM	6.01	4.17
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	4.69	5.41	5.85	4.31	7.48	4.63	6.24	5.76	NM	6.25	4.41
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	3.79	4.46	4.41	3.68	6.70	3.54	4.70	4.22	NM	5.51	3.59
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	4.12	4.97	4.98	3.87	6.98	4.00	5.33	4.84	NM	5.83	3.92

Notes:

(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.

(2) NM = Not Measured

Appendix C

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative



Plant Barry Gypsum Pond

2022 Compliance Event 1

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

The first three pH field readings for well MW-8 were qualified due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

E – Estimated reported value exceeded calibration range

Dusty conditions were present when pumping and sampling well MW-8.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-1	5/31/2022 13:01	Conductivity	58.03	uS/cm
MW-1	5/31/2022 13:01	DO	0.44	mg/L
MW-1	5/31/2022 13:01	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:01	Oxidation Reduction Potention	181.73	mv
MW-1	5/31/2022 13:01	pH	4.26	SU
MW-1	5/31/2022 13:01	Temperature	20.95	C
MW-1	5/31/2022 13:01	Turbidity	2.43	NTU
MW-1	5/31/2022 13:06	Conductivity	57.52	uS/cm
MW-1	5/31/2022 13:06	DO	0.38	mg/L
MW-1	5/31/2022 13:06	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:06	Oxidation Reduction Potention	186.18	mv
MW-1	5/31/2022 13:06	pH	4.12	SU
MW-1	5/31/2022 13:06	Temperature	20.84	C
MW-1	5/31/2022 13:06	Turbidity	1.33	NTU
MW-1	5/31/2022 13:11	Conductivity	56.99	uS/cm
MW-1	5/31/2022 13:11	DO	0.37	mg/L
MW-1	5/31/2022 13:11	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:11	Oxidation Reduction Potention	195.4	mv
MW-1	5/31/2022 13:11	pH	3.86	SU
MW-1	5/31/2022 13:11	Temperature	20.98	C
MW-1	5/31/2022 13:11	Turbidity	1.27	NTU
MW-1	5/31/2022 13:16	Conductivity	57	uS/cm
MW-1	5/31/2022 13:16	DO	0.35	mg/L
MW-1	5/31/2022 13:16	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:16	Oxidation Reduction Potention	193.75	mv
MW-1	5/31/2022 13:16	pH	3.88	SU
MW-1	5/31/2022 13:16	Temperature	20.79	C
MW-1	5/31/2022 13:16	Turbidity	1.64	NTU
MW-1	5/31/2022 13:21	Conductivity	57.06	uS/cm
MW-1	5/31/2022 13:21	DO	0.34	mg/L
MW-1	5/31/2022 13:21	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:21	Oxidation Reduction Potention	193.96	mv
MW-1	5/31/2022 13:21	pH	3.89	SU
MW-1	5/31/2022 13:21	Sulfide	0	mg/L
MW-1	5/31/2022 13:21	Temperature	20.77	C
MW-1	5/31/2022 13:21	Turbidity	2	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-2	5/31/2022 14:00	Conductivity	51.15	uS/cm
MW-2	5/31/2022 14:00	DO	6.6	mg/L
MW-2	5/31/2022 14:00	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:00	Oxidation Reduction Potention	183.27	mv
MW-2	5/31/2022 14:00	pH	3.95	SU
MW-2	5/31/2022 14:00	Temperature	20.02	C
MW-2	5/31/2022 14:00	Turbidity	9.16	NTU
MW-2	5/31/2022 14:05	Conductivity	50.67	uS/cm
MW-2	5/31/2022 14:05	DO	6.45	mg/L
MW-2	5/31/2022 14:05	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:05	Oxidation Reduction Potention	202.11	mv
MW-2	5/31/2022 14:05	pH	3.67	SU
MW-2	5/31/2022 14:05	Temperature	20.01	C
MW-2	5/31/2022 14:05	Turbidity	11.13	NTU
MW-2	5/31/2022 14:10	Conductivity	50.35	uS/cm
MW-2	5/31/2022 14:10	DO	6.29	mg/L
MW-2	5/31/2022 14:10	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:10	Oxidation Reduction Potention	215.94	mv
MW-2	5/31/2022 14:10	pH	3.48	SU
MW-2	5/31/2022 14:10	Temperature	20.16	C
MW-2	5/31/2022 14:10	Turbidity	6.79	NTU
MW-2	5/31/2022 14:15	Conductivity	50.27	uS/cm
MW-2	5/31/2022 14:15	DO	6.29	mg/L
MW-2	5/31/2022 14:15	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:15	Oxidation Reduction Potention	222.65	mv
MW-2	5/31/2022 14:15	pH	3.39	SU
MW-2	5/31/2022 14:15	Temperature	20.24	C
MW-2	5/31/2022 14:15	Turbidity	6.82	NTU
MW-2	5/31/2022 14:20	Conductivity	50.14	uS/cm
MW-2	5/31/2022 14:20	DO	6.28	mg/L
MW-2	5/31/2022 14:20	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:20	Oxidation Reduction Potention	225.28	mv
MW-2	5/31/2022 14:20	pH	3.32	SU
MW-2	5/31/2022 14:20	Temperature	20.23	C
MW-2	5/31/2022 14:20	Turbidity	5.15	NTU
MW-2	5/31/2022 14:25	Conductivity	50.04	uS/cm
MW-2	5/31/2022 14:25	DO	6.27	mg/L
MW-2	5/31/2022 14:25	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:25	Oxidation Reduction Potention	226.41	mv
MW-2	5/31/2022 14:25	pH	3.31	SU
MW-2	5/31/2022 14:25	Sulfide	0	mg/L
MW-2	5/31/2022 14:25	Temperature	20	C
MW-2	5/31/2022 14:25	Turbidity	4.82	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-3	5/31/2022 15:04	Conductivity	49.81	uS/cm
MW-3	5/31/2022 15:04	DO	5.89	mg/L
MW-3	5/31/2022 15:04	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:04	Oxidation Reduction Potention	180.26	mv
MW-3	5/31/2022 15:04	pH	4.04	SU
MW-3	5/31/2022 15:04	Temperature	20.62	C
MW-3	5/31/2022 15:04	Turbidity	5.91	NTU
MW-3	5/31/2022 15:09	Conductivity	49.95	uS/cm
MW-3	5/31/2022 15:09	DO	5.79	mg/L
MW-3	5/31/2022 15:09	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:09	Oxidation Reduction Potention	206.7	mv
MW-3	5/31/2022 15:09	pH	3.67	SU
MW-3	5/31/2022 15:09	Temperature	20.24	C
MW-3	5/31/2022 15:09	Turbidity	5.43	NTU
MW-3	5/31/2022 15:14	Conductivity	49.71	uS/cm
MW-3	5/31/2022 15:14	DO	5.84	mg/L
MW-3	5/31/2022 15:14	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:14	Oxidation Reduction Potention	216.27	mv
MW-3	5/31/2022 15:14	pH	3.6	SU
MW-3	5/31/2022 15:14	Temperature	20.11	C
MW-3	5/31/2022 15:14	Turbidity	3.35	NTU
MW-3	5/31/2022 15:19	Conductivity	49.57	uS/cm
MW-3	5/31/2022 15:19	DO	5.82	mg/L
MW-3	5/31/2022 15:19	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:19	Oxidation Reduction Potention	223.76	mv
MW-3	5/31/2022 15:19	pH	3.54	SU
MW-3	5/31/2022 15:19	Sulfide	0	mg/L
MW-3	5/31/2022 15:19	Temperature	20.09	C
MW-3	5/31/2022 15:19	Turbidity	3.1	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-4	5/31/2022 16:01	Conductivity	53.79	uS/cm
MW-4	5/31/2022 16:01	DO	6.49	mg/L
MW-4	5/31/2022 16:01	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:01	Oxidation Reduction Potention	189.08	mv
MW-4	5/31/2022 16:01	pH	4.38	SU
MW-4	5/31/2022 16:01	Temperature	23.14	C
MW-4	5/31/2022 16:01	Turbidity	10.27	NTU
MW-4	5/31/2022 16:06	Conductivity	53.31	uS/cm
MW-4	5/31/2022 16:06	DO	6.48	mg/L
MW-4	5/31/2022 16:06	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:06	Oxidation Reduction Potention	200.15	mv
MW-4	5/31/2022 16:06	pH	4.24	SU
MW-4	5/31/2022 16:06	Temperature	22.79	C
MW-4	5/31/2022 16:06	Turbidity	7.81	NTU
MW-4	5/31/2022 16:11	Conductivity	52.86	uS/cm
MW-4	5/31/2022 16:11	DO	6.5	mg/L
MW-4	5/31/2022 16:11	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:11	Oxidation Reduction Potention	209.5	mv
MW-4	5/31/2022 16:11	pH	4.11	SU
MW-4	5/31/2022 16:11	Temperature	22.47	C
MW-4	5/31/2022 16:11	Turbidity	7.58	NTU
MW-4	5/31/2022 16:16	Conductivity	53.05	uS/cm
MW-4	5/31/2022 16:16	DO	6.49	mg/L
MW-4	5/31/2022 16:16	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:16	Oxidation Reduction Potention	216.73	mv
MW-4	5/31/2022 16:16	pH	4.03	SU
MW-4	5/31/2022 16:16	Temperature	22.41	C
MW-4	5/31/2022 16:16	Turbidity	7.68	NTU
MW-4	5/31/2022 16:21	Conductivity	52.45	uS/cm
MW-4	5/31/2022 16:21	DO	6.48	mg/L
MW-4	5/31/2022 16:21	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:21	Oxidation Reduction Potention	223.18	mv
MW-4	5/31/2022 16:21	pH	3.97	SU
MW-4	5/31/2022 16:21	Sulfide	0	mg/L
MW-4	5/31/2022 16:21	Temperature	22.67	C
MW-4	5/31/2022 16:21	Turbidity	8.23	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-8	6/1/2022 12:58	Conductivity	44.57	uS/cm
BY-GSA-MW-8	6/1/2022 12:58	DO	0.88	mg/L
BY-GSA-MW-8	6/1/2022 12:58	Depth to Water Detail	28.46	ft
BY-GSA-MW-8	6/1/2022 12:58	Oxidation Reduction Potention	398.58	mv
BY-GSA-MW-8	6/1/2022 12:58	pH	3.92	SU
BY-GSA-MW-8	6/1/2022 12:58	Temperature	22.18	C
BY-GSA-MW-8	6/1/2022 12:58	Turbidity	5.36	NTU
BY-GSA-MW-8	6/1/2022 13:03	Conductivity	44.68	uS/cm
BY-GSA-MW-8	6/1/2022 13:03	DO	0.87	mg/L
BY-GSA-MW-8	6/1/2022 13:03	Depth to Water Detail	28.46	ft
BY-GSA-MW-8	6/1/2022 13:03	Oxidation Reduction Potention	401.98	mv
BY-GSA-MW-8	6/1/2022 13:03	pH	3.98	SU
BY-GSA-MW-8	6/1/2022 13:03	Temperature	22.38	C
BY-GSA-MW-8	6/1/2022 13:03	Turbidity	4.01	NTU
BY-GSA-MW-8	6/1/2022 13:08	Conductivity	44.9	uS/cm
BY-GSA-MW-8	6/1/2022 13:08	DO	0.87	mg/L
BY-GSA-MW-8	6/1/2022 13:08	Depth to Water Detail	28.46	ft
BY-GSA-MW-8	6/1/2022 13:08	Oxidation Reduction Potention	404.01	mv
BY-GSA-MW-8	6/1/2022 13:08	pH	4.03	SU
BY-GSA-MW-8	6/1/2022 13:08	Sulfide	0	mg/L
BY-GSA-MW-8	6/1/2022 13:08	Temperature	22.17	C
BY-GSA-MW-8	6/1/2022 13:08	Turbidity	2.9	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-9	6/1/2022 8:27	Conductivity	65.01	uS/cm
BY-GSA-MW-9	6/1/2022 8:27	DO	3.03	mg/L
BY-GSA-MW-9	6/1/2022 8:27	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:27	Oxidation Reduction Potention	250.82	mv
BY-GSA-MW-9	6/1/2022 8:27	pH	4.52	SU
BY-GSA-MW-9	6/1/2022 8:27	Temperature	21.29	C
BY-GSA-MW-9	6/1/2022 8:27	Turbidity	10.4	NTU
BY-GSA-MW-9	6/1/2022 8:32	Conductivity	64.78	uS/cm
BY-GSA-MW-9	6/1/2022 8:32	DO	3.03	mg/L
BY-GSA-MW-9	6/1/2022 8:32	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:32	Oxidation Reduction Potention	272.37	mv
BY-GSA-MW-9	6/1/2022 8:32	pH	4.52	SU
BY-GSA-MW-9	6/1/2022 8:32	Temperature	21.32	C
BY-GSA-MW-9	6/1/2022 8:32	Turbidity	5.36	NTU
BY-GSA-MW-9	6/1/2022 8:37	Conductivity	64.76	uS/cm
BY-GSA-MW-9	6/1/2022 8:37	DO	3.01	mg/L
BY-GSA-MW-9	6/1/2022 8:37	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:37	Oxidation Reduction Potention	296.92	mv
BY-GSA-MW-9	6/1/2022 8:37	pH	4.41	SU
BY-GSA-MW-9	6/1/2022 8:37	Temperature	21.32	C
BY-GSA-MW-9	6/1/2022 8:37	Turbidity	3.73	NTU
BY-GSA-MW-9	6/1/2022 8:42	Conductivity	64.76	uS/cm
BY-GSA-MW-9	6/1/2022 8:42	DO	3.03	mg/L
BY-GSA-MW-9	6/1/2022 8:42	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:42	Oxidation Reduction Potention	308.06	mv
BY-GSA-MW-9	6/1/2022 8:42	pH	4.49	SU
BY-GSA-MW-9	6/1/2022 8:42	Sulfide	0	mg/L
BY-GSA-MW-9	6/1/2022 8:42	Temperature	21.31	C
BY-GSA-MW-9	6/1/2022 8:42	Turbidity	4.02	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-10	6/1/2022 9:24	Conductivity	58.09	uS/cm
BY-GSA-MW-10	6/1/2022 9:24	DO	4.42	mg/L
BY-GSA-MW-10	6/1/2022 9:24	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:24	Oxidation Reduction Potential	312.89	mv
BY-GSA-MW-10	6/1/2022 9:24	pH	4.46	SU
BY-GSA-MW-10	6/1/2022 9:24	Temperature	20.72	C
BY-GSA-MW-10	6/1/2022 9:24	Turbidity	11.99	NTU
BY-GSA-MW-10	6/1/2022 9:29	Conductivity	58.53	uS/cm
BY-GSA-MW-10	6/1/2022 9:29	DO	4.47	mg/L
BY-GSA-MW-10	6/1/2022 9:29	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:29	Oxidation Reduction Potential	327.08	mv
BY-GSA-MW-10	6/1/2022 9:29	pH	4.47	SU
BY-GSA-MW-10	6/1/2022 9:29	Temperature	20.7	C
BY-GSA-MW-10	6/1/2022 9:29	Turbidity	9.04	NTU
BY-GSA-MW-10	6/1/2022 9:34	Conductivity	58.66	uS/cm
BY-GSA-MW-10	6/1/2022 9:34	DO	4.48	mg/L
BY-GSA-MW-10	6/1/2022 9:34	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:34	Oxidation Reduction Potential	336.26	mv
BY-GSA-MW-10	6/1/2022 9:34	pH	4.52	SU
BY-GSA-MW-10	6/1/2022 9:34	Temperature	20.66	C
BY-GSA-MW-10	6/1/2022 9:34	Turbidity	7.07	NTU
BY-GSA-MW-10	6/1/2022 9:39	Conductivity	58.72	uS/cm
BY-GSA-MW-10	6/1/2022 9:39	DO	4.47	mg/L
BY-GSA-MW-10	6/1/2022 9:39	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:39	Oxidation Reduction Potential	344.6	mv
BY-GSA-MW-10	6/1/2022 9:39	pH	4.55	SU
BY-GSA-MW-10	6/1/2022 9:39	Temperature	20.66	C
BY-GSA-MW-10	6/1/2022 9:39	Turbidity	6.49	NTU
BY-GSA-MW-10	6/1/2022 9:44	Conductivity	58.57	uS/cm
BY-GSA-MW-10	6/1/2022 9:44	DO	4.43	mg/L
BY-GSA-MW-10	6/1/2022 9:44	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:44	Oxidation Reduction Potential	351.55	mv
BY-GSA-MW-10	6/1/2022 9:44	pH	4.56	SU
BY-GSA-MW-10	6/1/2022 9:44	Sulfide	0	mg/L
BY-GSA-MW-10	6/1/2022 9:44	Temperature	20.8	C
BY-GSA-MW-10	6/1/2022 9:44	Turbidity	4.6	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-PZ-11	6/1/2022 10:30	Conductivity	48.37	uS/cm
BY-GSA-PZ-11	6/1/2022 10:30	DO	5.04	mg/L
BY-GSA-PZ-11	6/1/2022 10:30	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:30	Oxidation Reduction Potential	334.18	mv
BY-GSA-PZ-11	6/1/2022 10:30	pH	4.43	SU
BY-GSA-PZ-11	6/1/2022 10:30	Temperature	23.04	C
BY-GSA-PZ-11	6/1/2022 10:30	Turbidity	12.4	NTU
BY-GSA-PZ-11	6/1/2022 10:35	Conductivity	49.46	uS/cm
BY-GSA-PZ-11	6/1/2022 10:35	DO	5.05	mg/L
BY-GSA-PZ-11	6/1/2022 10:35	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:35	Oxidation Reduction Potential	346.94	mv
BY-GSA-PZ-11	6/1/2022 10:35	pH	4.43	SU
BY-GSA-PZ-11	6/1/2022 10:35	Temperature	22.71	C
BY-GSA-PZ-11	6/1/2022 10:35	Turbidity	8	NTU
BY-GSA-PZ-11	6/1/2022 10:40	Conductivity	49.52	uS/cm
BY-GSA-PZ-11	6/1/2022 10:40	DO	5.06	mg/L
BY-GSA-PZ-11	6/1/2022 10:40	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:40	Oxidation Reduction Potential	348.16	mv
BY-GSA-PZ-11	6/1/2022 10:40	pH	4.58	SU
BY-GSA-PZ-11	6/1/2022 10:40	Temperature	22.72	C
BY-GSA-PZ-11	6/1/2022 10:40	Turbidity	5	NTU
BY-GSA-PZ-11	6/1/2022 10:45	Conductivity	49.51	uS/cm
BY-GSA-PZ-11	6/1/2022 10:45	DO	5.04	mg/L
BY-GSA-PZ-11	6/1/2022 10:45	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:45	Oxidation Reduction Potential	349.35	mv
BY-GSA-PZ-11	6/1/2022 10:45	pH	4.7	SU
BY-GSA-PZ-11	6/1/2022 10:45	Temperature	22.86	C
BY-GSA-PZ-11	6/1/2022 10:45	Turbidity	4.41	NTU
BY-GSA-PZ-11	6/1/2022 10:50	Conductivity	49.53	uS/cm
BY-GSA-PZ-11	6/1/2022 10:50	DO	5.02	mg/L
BY-GSA-PZ-11	6/1/2022 10:50	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:50	Oxidation Reduction Potential	352.58	mv
BY-GSA-PZ-11	6/1/2022 10:50	pH	4.74	SU
BY-GSA-PZ-11	6/1/2022 10:50	Sulfide	0	mg/L
BY-GSA-PZ-11	6/1/2022 10:50	Temperature	22.95	C
BY-GSA-PZ-11	6/1/2022 10:50	Turbidity	3.83	NTU

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARPU_1372

Project/Site : Barry Pooled Upgradient
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

June 16, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 2022. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2022

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2022.06.16
09:10:32 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, o=US
United States, ou=United States
e=tdmaske@southernco.com
Reason: I am approving this document
Location:
Date: 2022-06-16 10:06:05-00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728204	WMWBARPU_1372
BC10403	728204	WMWBARPU_1372
BC10404	728204	WMWBARPU_1372
BC10405	728204	WMWBARPU_1372
BC10406	728204	WMWBARPU_1372
BC10407	728204	WMWBARPU_1372
BC10408	728204	WMWBARPU_1372

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BC10402	Iron	10.15

8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728219	WMWBARPU_1372
BC10403	728219	WMWBARPU_1372
BC10405	728219	WMWBARPU_1372
BC10406	728219	WMWBARPU_1372
BC10407	728219	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Revision 5

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BC10402	Iron	10.15

8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728449	WMWBARPU_1372
BC10403	728449	WMWBARPU_1372
BC10404	728449	WMWBARPU_1372
BC10405	728449	WMWBARPU_1372
BC10406	728449	WMWBARPU_1372
BC10407	728449	WMWBARPU_1372
BC10408	728449	WMWBARPU_1372

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728465	WMWBARPU_1372
BC10403	728465	WMWBARPU_1372
BC10405	728465	WMWBARPU_1372
BC10406	728465	WMWBARPU_1372
BC10407	728465	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728373	WMWBARPU_1372
BC10403	728373	WMWBARPU_1372
BC10404	728373	WMWBARPU_1372
BC10405	728373	WMWBARPU_1372
BC10406	728373	WMWBARPU_1372
BC10407	728373	WMWBARPU_1372
BC10408	728373	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Revision 5

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728167	WMWBARPU_1372
BC10403	728167	WMWBARPU_1372
BC10404	728167	WMWBARPU_1372
BC10405	728167	WMWBARPU_1372
BC10406	728167	WMWBARPU_1372
BC10407	728167	WMWBARPU_1372
BC10408	728167	WMWBARPU_1372

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BC10404
 - BC10408

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728840,728841	WMWBARPU_1372
BC10403	728840,728841	WMWBARPU_1372
BC10405	728840,728841	WMWBARPU_1372
BC10406	728840,728841	WMWBARPU_1372
BC10407	728840,728841	WMWBARPU_1372

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met, except for the following:
 - BC10407 Precision is invalid due to sample concentration.

Anions

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728178,728649,728620	WMWBARPU_1372
BC10403	728178,728649,728620	WMWBARPU_1372
BC10404	728178,728649,728620	WMWBARPU_1372
BC10405	728178,728649,728620	WMWBARPU_1372
BC10406	728178,728649,728620	WMWBARPU_1372
BC10407	728178,728649,728620	WMWBARPU_1372
BC10408	728178,728649,728620	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without dilution.

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728305	WMWBARPU_1372
BC10403	728305	WMWBARPU_1372
BC10404	728305	WMWBARPU_1372
BC10405	728305	WMWBARPU_1372
BC10406	728305	WMWBARPU_1372
BC10407	728305	WMWBARPU_1372
BC10408	728305	WMWBARPU_1372

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met.
- 7. All samples were analyzed without a dilution factor.
- 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728186	WMWBARPU_1372
BC10403	728186	WMWBARPU_1372
BC10404	728186	WMWBARPU_1372
BC10405	728186	WMWBARPU_1372
BC10406	728186	WMWBARPU_1372
BC10407	728186	WMWBARPU_1372
BC10408	728186	WMWBARPU_1372

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 5/31/22 13:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10402

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 09:50		1.015	0.0567	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 09:50		1.015	1.14	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:16		10.15	4.80	mg/L	0.08120	0.406	
* Lithium, Total	6/6/22 09:22	6/8/22 09:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:50		1.015	2.23	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:50		1	6.74	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:50		1.015	3.15	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 09:50		1.015	2.05	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	0.0564	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	1.13	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:32		10.15	4.08	mg/L	0.08120	0.406	
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	2.25	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:12		1	6.83	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	3.19	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	2.09	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.0898	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.000237	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.100	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.000334	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.00487	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.0000838	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.154	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.444	mg/L	0.169505	0.5075	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 5/31/22 13:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10402

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.0534	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.000168	mg/L	0.000081	0.000203	J
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.101	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.000231	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.00484	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.155	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.458	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 12:38	6/6/22 12:38		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	8.56	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	32.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	8.56	mg/L			
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 01:15	6/8/22 01:15		1	1.58	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 5/31/22 13:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10402

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 12:56	6/6/22 12:56		1	1.93	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:27	6/8/22 13:27		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:10	6/7/22 16:10		1	12.8	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	5/31/22 13:21	5/31/22 13:21			57.06	uS/cm			FA
pH	5/31/22 13:21	5/31/22 13:21			3.89	SU			FA
Temperature	5/31/22 13:21	5/31/22 13:21			20.77	C			FA
Turbidity	5/31/22 13:21	5/31/22 13:21			2	NTU			FA
Sulfide	5/31/22 13:21	5/31/22 13:21			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 13:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10407	Aluminum, Dissolved	mg/L	0.000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 13:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 13:24

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	
				Limit	Spike	MS	Limit			Limit	Limit	Prec			
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115		106	70.0 to 130		0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1			100	80.0 to 120		1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 13:24

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 5/31/22 14:28
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10403

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 09:53		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 09:53		1.015	1.24	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 09:53		1.015	0.0704	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 09:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:53		1.015	2.48	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:53		1	8.39	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:53		1.015	3.92	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 09:53		1.015	2.25	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	1.26	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	2.48	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:15		1	8.26	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	3.86	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	2.25	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.127	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.0000879	mg/L	0.000081	0.000203	J
* Barium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.153	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.000413	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.00120	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.00194	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.0000781	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.0241	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.905	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 5/31/22 14:28
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10403

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.000633	mg/L	0.000508	0.001015	J
* Thallium, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.0788	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.153	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.000413	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.000998	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.00187	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.0235	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.885	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.000575	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 12:39	6/6/22 12:39		1	1.84	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	0.44	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	30.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 01:35	6/8/22 01:35		1	1.14	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU

Collected: 5/31/22 14:28

Customer ID:

Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10403

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 12:57	6/6/22 12:57		1	2.17	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:28	6/8/22 13:28		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:11	6/7/22 16:11		1	8.09	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	5/31/22 14:25	5/31/22 14:25			50.04	uS/cm			FA
pH	5/31/22 14:25	5/31/22 14:25			3.31	SU			FA
Temperature	5/31/22 14:25	5/31/22 14:25			20.00	C			FA
Turbidity	5/31/22 14:25	5/31/22 14:25			4.82	NTU			FA
Sulfide	5/31/22 14:25	5/31/22 14:25			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 14:28
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC10407	Aluminum, Dissolved	mg/L	0.000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 14:28
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 14:28

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	
				Limit	Spike	MS	Limit			Limit	Limit	Prec			
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115		106	70.0 to 130		0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1			100	80.0 to 120		1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 14:28

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 5/31/22 14:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10404

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:56		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:44		1.015	0.000273	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2			Analyst: CES						
* Nitrogen, Nitrate/Nitrite	6/6/22 12:41	6/6/22 12:41		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB

Collected: 5/31/22 14:45

Customer ID:

Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10404

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 01:56	6/8/22 01:56		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 12:58	6/6/22 12:58		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:29	6/8/22 13:29		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:13	6/7/22 16:13		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 5/31/22 14:45

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC10404

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 5/31/22 14:45

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC10404

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0		
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0		
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0		

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 5/31/22 14:45

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC10404

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec Limit	Prec	Prec Limit	
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 09:59		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 09:59		1.015	1.95	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 09:59		1.015	0.0270	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 09:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:59		1.015	2.05	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:59		1	8.60	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:59		1.015	4.02	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 09:59		1.015	3.11	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	1.94	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	2.01	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:17		1	8.52	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	3.98	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	3.11	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.0446	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.0992	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.00139	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.00149	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.0196	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.987	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.0232	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.101	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.00129	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.00154	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.0198	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.961	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 12:42	6/6/22 12:42		1	2.11	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	1.24	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	35.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	1.24	mg/L			
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 02:12	6/8/22 02:12		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU

Collected: 5/31/22 15:22

Customer ID:

Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 12:59	6/6/22 12:59		1	3.39	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:30	6/8/22 13:30		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:14	6/7/22 16:14		1	7.02	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	5/31/22 15:19	5/31/22 15:19			49.57	uS/cm			FA
pH	5/31/22 15:19	5/31/22 15:19			3.54	SU			FA
Temperature	5/31/22 15:19	5/31/22 15:19			20.09	C			FA
Turbidity	5/31/22 15:19	5/31/22 15:19			3.1	NTU			FA
Sulfide	5/31/22 15:19	5/31/22 15:19			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 15:22

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC10407	Aluminum, Dissolved	mg/L	0.000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 15:22

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Limit	Prec	Prec Limit	
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 15:22

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3 Dup

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:02		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:02		1.015	1.97	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:02		1.015	0.0242	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:02		1.015	2.04	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:02		1	8.54	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:02		1.015	3.99	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:02		1.015	3.11	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	1.94	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	2.04	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:20		1	8.52	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	3.98	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	3.14	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.0429	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.101	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.00134	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.00152	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.0198	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.974	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3 Dup

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.0237	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.0993	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.00122	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.00158	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.0199	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	1.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 12:43	6/6/22 12:43		1	2.01	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	1.20	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	31.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	1.20	mg/L			
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 02:28	6/8/22 02:28		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3 Dup

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:01	6/6/22 13:01		1	3.41	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:32	6/8/22 13:32		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:15	6/7/22 16:15		1	7.18	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	5/31/22 15:19	5/31/22 15:19			49.57	uS/cm			FA
pH	5/31/22 15:19	5/31/22 15:19			3.54	SU			FA
Temperature	5/31/22 15:19	5/31/22 15:19			20.09	C			FA
Turbidity	5/31/22 15:19	5/31/22 15:19			3.1	NTU			FA
Sulfide	5/31/22 15:19	5/31/22 15:19			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10407	Aluminum, Dissolved	mg/L	0.000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 15:22

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Limit	Prec	Prec Limit	
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 15:22

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 5/31/22 16:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:05		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:05		1.015	2.02	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:05		1.015	0.222	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:05		1.015	2.20	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:05		1	8.82	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:05		1.015	4.12	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:05		1.015	2.69	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	2.03	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	2.14	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:23		1	8.56	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	4.00	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	2.65	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.233	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.000203	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.129	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.00156	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.00150	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.000173	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.0173	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:55		1.015	1.05	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 5/31/22 16:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.0212	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.129	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.00104	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.00138	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.0165	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	1.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 12:44	6/6/22 12:44		1	2.55	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	0.44	mg/L		0.1	PA
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	36.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 02:51	6/8/22 02:51		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 5/31/22 16:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:02	6/6/22 13:02		1	3.31	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:33	6/8/22 13:33		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:16	6/7/22 16:16		1	7.94	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	5/31/22 16:21	5/31/22 16:21			52.45	uS/cm			FA
pH	5/31/22 16:21	5/31/22 16:21			3.97	SU			FA
Temperature	5/31/22 16:21	5/31/22 16:21			22.67	C			FA
Turbidity	5/31/22 16:21	5/31/22 16:21			8.23	NTU			FA
Sulfide	5/31/22 16:21	5/31/22 16:21			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 16:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10407	Aluminum, Dissolved	mg/L	0.000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 16:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 16:24

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 5/31/22 16:24

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 5/31/22 16:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10408

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:07		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:58		1.015	0.000269	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2			Analyst: CES						
* Nitrogen, Nitrate/Nitrite	6/6/22 12:45	6/6/22 12:45		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 5/31/22 16:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10408

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 03:13	6/8/22 03:13		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:03	6/6/22 13:03		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:34	6/8/22 13:34		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:17	6/7/22 16:17		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 5/31/22 16:45

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC10408

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 5/31/22 16:45

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC10408

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0		
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0		
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0		

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 5/31/22 16:45

Customer ID:

Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC10408

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments:

Definitions

Project Number: WMWBARPU_1372

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
PA	Precision is invalid due to sample concentration.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete Outside Lab
 Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Barry Pooled Upgradient

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS	500 mL	7	Alkalinity	250 mL
	2	Dissolved Metals	500 mL	4	Nitrate/Nitrite; TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments: Samples relinquished to GSC Building 8 shipping lab on 06/01/22 @ 1554.
 N/N, TOC pH < 2 SU. BC 06/02/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	05/31/2022	13:24	7	Groundwater		BC10402
MW-2	05/31/2022	14:28	7	Groundwater		BC10403
FB-1	05/31/2022	14:45	5	Field Blank		BC10404
MW-3	05/31/2022	15:22	7	Groundwater		BC10405
MW-3 dup	05/31/2022	15:22	7	Sample Duplicate		BC10406
MW-4	05/31/2022	16:24	7	Groundwater		BC10407
EB-1	05/31/2022	16:45	5	Equipment Blank		BC10408

Relinquished By	Received By	Date/Time
	Brooke Caton <small>Digitally signed by Brooke Caton Date: 2022.06.02 08:18:41 -05'00'</small>	06/02/2022 08:18

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1372	
Cooler Temp	1.9 °C	
	Thermometer ID	7044-38281-2-1
	pH Strip ID	10275-59506-10-2

Bottles/Pre-Preserved Bottles are provided by the GTL



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Barry Pooled Upgradient

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Radium MS/MSD collected at MW-1. Samples relinquished to GSC Building 8 shipping lab on 06/01/22 @ 1555.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	05/31/2022	13:24	3	Groundwater		BC10409
MW-2	05/31/2022	14:28	1	Groundwater		BC10410
FB-1	05/31/2022	14:45	1	Field Blank		BC10411
MW-3	05/31/2022	15:22	1	Groundwater		BC10412
MW-3 dup	05/31/2022	15:22	1	Sample Duplicate		BC10413
MW-4	05/31/2022	16:24	1	Groundwater		BC10414
EB-1	05/31/2022	16:45	1	Equipment Blank		BC10415

Relinquished By	Received By	Date/Time
	Brooke Caton <small>Digitally signed by Brooke Caton Date: 2022.06.02 08:19:17 -05'00'</small>	06/02/2022 08:19

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2		
Sample Event	1372		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	10275-59506-10-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARG_1373

Project/Site : Barry Gypsum
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

June 17, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 2022. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2022

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2022.06.17
14:58:35 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T. Durant Maske, gn=T. Durant Maske, c=US
United States, o=US, United States
e=t2maske@southernco.com
Reason: I am approving this document
Location:
Date: 2022-06-17 15:03:05-00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728204	WMWBARPU_1372
BC10403	728204	WMWBARPU_1372
BC10404	728204	WMWBARPU_1372
BC10405	728204	WMWBARPU_1372
BC10406	728204	WMWBARPU_1372
BC10407	728204	WMWBARPU_1372
BC10408	728204	WMWBARPU_1372

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BC10402	Iron	10.15

8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728219	WMWBARPU_1372
BC10403	728219	WMWBARPU_1372
BC10405	728219	WMWBARPU_1372
BC10406	728219	WMWBARPU_1372
BC10407	728219	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Revision 5

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BC10402	Iron	10.15

8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728449	WMWBARPU_1372
BC10403	728449	WMWBARPU_1372
BC10404	728449	WMWBARPU_1372
BC10405	728449	WMWBARPU_1372
BC10406	728449	WMWBARPU_1372
BC10407	728449	WMWBARPU_1372
BC10408	728449	WMWBARPU_1372

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728465	WMWBARPU_1372
BC10403	728465	WMWBARPU_1372
BC10405	728465	WMWBARPU_1372
BC10406	728465	WMWBARPU_1372
BC10407	728465	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728373	WMWBARPU_1372
BC10403	728373	WMWBARPU_1372
BC10404	728373	WMWBARPU_1372
BC10405	728373	WMWBARPU_1372
BC10406	728373	WMWBARPU_1372
BC10407	728373	WMWBARPU_1372
BC10408	728373	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Revision 5

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728167	WMWBARPU_1372
BC10403	728167	WMWBARPU_1372
BC10404	728167	WMWBARPU_1372
BC10405	728167	WMWBARPU_1372
BC10406	728167	WMWBARPU_1372
BC10407	728167	WMWBARPU_1372
BC10408	728167	WMWBARPU_1372

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BC10404
 - BC10408

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728840,728841	WMWBARPU_1372
BC10403	728840,728841	WMWBARPU_1372
BC10405	728840,728841	WMWBARPU_1372
BC10406	728840,728841	WMWBARPU_1372
BC10407	728840,728841	WMWBARPU_1372

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met, except for the following:
 - BC10407 Precision is invalid due to sample concentration.

Anions

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728178,728649,728620	WMWBARPU_1372
BC10403	728178,728649,728620	WMWBARPU_1372
BC10404	728178,728649,728620	WMWBARPU_1372
BC10405	728178,728649,728620	WMWBARPU_1372
BC10406	728178,728649,728620	WMWBARPU_1372
BC10407	728178,728649,728620	WMWBARPU_1372
BC10408	728178,728649,728620	WMWBARPU_1372

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without dilution.

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728305	WMWBARPU_1372
BC10403	728305	WMWBARPU_1372
BC10404	728305	WMWBARPU_1372
BC10405	728305	WMWBARPU_1372
BC10406	728305	WMWBARPU_1372
BC10407	728305	WMWBARPU_1372
BC10408	728305	WMWBARPU_1372

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met.
- 7. All samples were analyzed without a dilution factor.
- 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Pooled Upgradient

WMWBARPU_1372

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC10402	728186	WMWBARPU_1372
BC10403	728186	WMWBARPU_1372
BC10404	728186	WMWBARPU_1372
BC10405	728186	WMWBARPU_1372
BC10406	728186	WMWBARPU_1372
BC10407	728186	WMWBARPU_1372
BC10408	728186	WMWBARPU_1372

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 5/31/22 13:38
Customer ID:
Submittal Date: 6/2/22 12:13

Laboratory ID Number: BC10423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:25		1.015	0.939	mg/L	0.030000	0.1015	
* Calcium, Total	6/6/22 09:22	6/8/22 10:25		1.015	8.52	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:25		1.015	0.0362	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:25		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:25		1.015	8.35	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:25		1	10.6	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:25		1.015	4.97	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:25		1.015	4.40	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	0.931	mg/L	0.030000	0.1015	
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	8.60	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	8.19	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:41		1	10.5	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	4.92	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	4.32	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.263	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000527	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.226	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000713	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000122	mg/L	0.000068	0.000203	J
* Chromium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.00281	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.00606	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000182	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.0615	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:27		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:27		1.015	1.83	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 5/31/22 13:38
Customer ID:
Submittal Date: 6/2/22 12:13

Laboratory ID Number: BC10423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.0217	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.200	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000284	mg/L	0.000081	0.000203	
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.224	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000731	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000162	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.00266	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.00604	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000140	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.0611	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	1.82	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.0215	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:09		1	0.000362	mg/L	0.0003	0.0005	J
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 13:49	6/6/22 13:49		1	1.30	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	104	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 07:00	6/8/22 07:00		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 5/31/22 13:38
Customer ID:
Submittal Date: 6/2/22 12:13

Laboratory ID Number: BC10423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:19	6/6/22 13:19		1	7.83	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:47	6/8/22 13:47		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:44	6/7/22 16:44		3	48.7	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	5/31/22 13:34	5/31/22 13:34			168.62	uS/cm			FA
pH	5/31/22 13:34	5/31/22 13:34			4.61	SU			FA
Temperature	5/31/22 13:34	5/31/22 13:34			23.83	C			FA
Turbidity	5/31/22 13:34	5/31/22 13:34			4.65	NTU			FA
Sulfide	5/31/22 13:34	5/31/22 13:34			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:28		1.015	0.685	mg/L	0.030000	0.1015	
* Calcium, Total	6/6/22 09:22	6/8/22 10:28		1.015	9.98	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:28		1.015	0.0318	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:28		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:28		1.015	6.24	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:28		1	10.7	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:28		1.015	4.99	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:28		1.015	3.98	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	0.673	mg/L	0.030000	0.1015	
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	9.81	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	6.04	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:44		1	10.5	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	4.90	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	4.06	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.289	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000515	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.202	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000660	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000235	mg/L	0.000068	0.000203	
* Chromium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.00412	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.00724	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000111	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.0748	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:30		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:30		1.015	1.68	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.0132	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.0818	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.191	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.000604	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.000223	mg/L	0.000068	0.000203	
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.00366	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.00631	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.000117	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.0628	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	1.65	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.0124	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:11		1	0.000345	mg/L	0.0003	0.0005	J
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 13:51	6/6/22 13:51		1	1.22	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	7.08	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	85.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	7.08	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 07:23	6/8/22 07:23		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:20	6/6/22 13:20		1	7.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:48	6/8/22 13:48		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:31	6/7/22 16:31		1	38.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	5/31/22 14:51	5/31/22 14:51			143.33	uS/cm			FA
pH	5/31/22 14:51	5/31/22 14:51			4.98	SU			FA
Temperature	5/31/22 14:51	5/31/22 14:51			22.95	C			FA
Turbidity	5/31/22 14:51	5/31/22 14:51			3.42	NTU			FA
Sulfide	5/31/22 14:51	5/31/22 14:51			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Limit	Prec	Prec Limit	
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6 Dup

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:31		1.015	0.683	mg/L	0.030000	0.1015	
* Calcium, Total	6/6/22 09:22	6/8/22 10:31		1.015	9.88	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:31		1.015	0.0331	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:31		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:31		1.015	6.23	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:31		1	10.6	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:31		1.015	4.94	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:31		1.015	4.00	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	0.670	mg/L	0.030000	0.1015	
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	9.78	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	6.06	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:47		1	10.3	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	4.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	3.92	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.282	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000475	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.205	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000674	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000242	mg/L	0.000068	0.000203	
* Chromium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.00400	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.00732	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000112	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.0762	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:34		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:34		1.015	1.64	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6 Dup

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.0131	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.111	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.000475	mg/L	0.000081	0.000203	
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.203	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.000622	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.000222	mg/L	0.000068	0.000203	
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.00380	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.00652	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.0656	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	1.67	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.0132	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:13		1	0.000338	mg/L	0.0003	0.0005	J
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 13:53	6/6/22 13:53		1	1.20	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	5.60	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	93.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	5.60	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 07:39	6/8/22 07:39		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6 Dup

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:21	6/6/22 13:21		1	7.10	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:50	6/8/22 13:50		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:32	6/7/22 16:32		1	37.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	5/31/22 14:51	5/31/22 14:51			143.33	uS/cm			FA
pH	5/31/22 14:51	5/31/22 14:51			4.98	SU			FA
Temperature	5/31/22 14:51	5/31/22 14:51			22.95	C			FA
Turbidity	5/31/22 14:51	5/31/22 14:51			3.42	NTU			FA
Sulfide	5/31/22 14:51	5/31/22 14:51			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 6/1/22 08:45
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:34		1.015	0.0933	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 10:34		1.015	1.55	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:34		1.015	0.0286	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:34		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:34		1.015	2.59	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:34		1	8.37	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:34		1.015	3.91	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:34		1.015	2.84	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	0.0929	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	1.62	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	2.59	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:50		1	8.20	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	3.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	2.73	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.225	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.000105	mg/L	0.000081	0.000203	J
* Barium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.142	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.00104	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.00131	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.000232	mg/L	0.000068	0.000203	
* Manganese, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.0427	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.971	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 6/1/22 08:45
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.00204	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.146	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.140	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.000886	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.00129	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.000237	mg/L	0.000068	0.000203	
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.0436	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.976	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.00189	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 13:54	6/6/22 13:54		1	0.314	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	0.32	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	39.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 07:55	6/8/22 07:55		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG

Collected: 6/1/22 08:45

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:23	6/6/22 13:23		1	4.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:51	6/8/22 13:51		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:33	6/7/22 16:33		1	13.0	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	6/1/22 08:42	6/1/22 08:42			64.76	uS/cm			FA
pH	6/1/22 08:42	6/1/22 08:42			4.49	SU			FA
Temperature	6/1/22 08:42	6/1/22 08:42			21.31	C			FA
Turbidity	6/1/22 08:42	6/1/22 08:42			4.02	NTU			FA
Sulfide	6/1/22 08:42	6/1/22 08:42			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 08:45

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 08:45

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard Limit	Rec		Prec Limit
				Limit	Spike	MS	MSD				Rec	Limit	
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 08:45

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Limit	Prec	Prec Limit	
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 08:45

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 6/1/22 09:47
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:37		1.015	0.0493	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 10:37		1.015	1.04	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:37		1.015	0.0987	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:37		1.015	2.58	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:37		1	7.90	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:37		1.015	3.69	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:37		1.015	2.62	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	0.0492	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	1.09	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	2.61	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:53		1	7.64	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	3.57	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	2.52	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.280	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.0000893	mg/L	0.000081	0.000203	J
* Barium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.136	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.000893	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.00270	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.000102	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.0400	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.827	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG

Collected: 6/1/22 09:47

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.00125	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.128	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.135	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.000591	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.00283	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.000105	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.0413	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.811	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.00110	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 13:56	6/6/22 13:56		1	0.643	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	0.36	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	40.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 08:12	6/8/22 08:12		1	1.17	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG

Collected: 6/1/22 09:47

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:24	6/6/22 13:24		1	3.35	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:52	6/8/22 13:52		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:34	6/7/22 16:34		1	11.4	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	6/1/22 09:44	6/1/22 09:44			58.57	uS/cm			FA
pH	6/1/22 09:44	6/1/22 09:44			4.56	SU			FA
Temperature	6/1/22 09:44	6/1/22 09:44			20.80	C			FA
Turbidity	6/1/22 09:44	6/1/22 09:44			4.6	NTU			FA
Sulfide	6/1/22 09:44	6/1/22 09:44			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 6/1/22 09:47
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 09:47

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 09:47

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 09:47

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 6/1/22 10:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:40		1.015	0.0564	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 10:40		1.015	1.13	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:40		1.015	0.0679	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:40		1.015	1.32	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:40		1	10.6	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:40		1.015	4.96	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:40		1.015	3.95	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	0.0559	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	1.16	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	0.0134	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	1.32	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:55		1	10.3	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	4.80	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	3.88	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.232	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.0821	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.00292	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.00143	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.000120	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.0125	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:45		1.015	1.28	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 6/1/22 10:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.00132	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.0278	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.0767	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.00246	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.00140	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.0127	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	1.31	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.00120	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 13:58	6/6/22 13:58		1	0.457	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	0.44	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	35.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 08:31	6/8/22 08:31		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG

Collected: 6/1/22 10:55

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:25	6/6/22 13:25		1	7.97	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:53	6/8/22 13:53		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:35	6/7/22 16:35		1	4.75	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	6/1/22 10:50	6/1/22 10:50			49.53	uS/cm			FA
pH	6/1/22 10:50	6/1/22 10:50			4.74	SU			FA
Temperature	6/1/22 10:50	6/1/22 10:50			22.95	C			FA
Turbidity	6/1/22 10:50	6/1/22 10:50			3.83	NTU			FA
Sulfide	6/1/22 10:50	6/1/22 10:50			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 6/1/22 10:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 10:55

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard Limit	Rec		Prec Limit
				Limit	Spike	MS	MSD				Rec	Limit	
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 10:55

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 10:55

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 6/1/22 11:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10429

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:42		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:48		1.015	0.000275	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2			Analyst: CES						
* Nitrogen, Nitrate/Nitrite	6/6/22 13:59	6/6/22 13:59		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB

Collected: 6/1/22 11:10

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10429

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 08:50	6/8/22 08:50		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:26	6/6/22 13:26		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:54	6/8/22 13:54		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:37	6/7/22 16:37		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 6/1/22 11:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC10429

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 6/1/22 11:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC10429

Sample	Analysis	Units	MB	MB				Standard	Standard		Rec		Prec	Limit	
				Limit	Spike	MS	MSD		Limit	Rec	Limit	Prec			
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0		102	80.0 to 120		0.491	20.0
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115		106	70.0 to 130		0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4			100	80.0 to 120		1.98	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 6/1/22 11:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC10429

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments:

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 6/1/22 12:20
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10430

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:45		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:45		1.015	1.27	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:45		1.015	0.111	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:45		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:45		1.015	1.40	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:45		1	10.4	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:45		1.015	4.86	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:45		1.015	7.53	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	1.30	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	1.41	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:58		1	10.2	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	4.77	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	7.58	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0846	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.000238	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0803	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.00157	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.00162	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0000797	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0157	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:52		1.015	1.09	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 6/1/22 12:20
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10430

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.000581	mg/L	0.000508	0.001015	J
* Thallium, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0100	mg/L	0.006090	0.01015	J
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0856	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.00127	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.00158	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0000797	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0153	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	1.04	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.000530	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 14:00	6/6/22 14:00		1	0.326	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	1.88	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	41.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	1.88	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 09:06	6/8/22 09:06		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG

Collected: 6/1/22 12:20

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10430

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:27	6/6/22 13:27		1	14.7	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:56	6/8/22 13:56		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:38	6/7/22 16:38		1	3.40	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	6/1/22 12:15	6/1/22 12:15			64.53	uS/cm			FA
pH	6/1/22 12:15	6/1/22 12:15			4.56	SU			FA
Temperature	6/1/22 12:15	6/1/22 12:15			22.13	C			FA
Turbidity	6/1/22 12:15	6/1/22 12:15			4.86	NTU			FA
Sulfide	6/1/22 12:15	6/1/22 12:15			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 12:20

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 6/1/22 12:20
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 12:20

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 12:20

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 6/1/22 13:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10431

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:48		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:48		1.015	0.940	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:48		1.015	0.0374	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:48		1.015	1.09	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:48		1	11.2	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:48		1.015	5.23	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:48		1.015	4.84	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	0.863	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	1.02	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 12:01		1	11.2	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	5.23	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	4.88	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.0280	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.0477	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.00226	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.000482	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.0175	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.891	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 6/1/22 13:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10431

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.00779	mg/L	0.006090	0.01015	J
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.0460	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.00208	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.000430	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.000108	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.0148	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.875	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 14:01	6/6/22 14:01		1	0.237	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	4.76	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	30.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	4.76	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 09:22	6/8/22 09:22		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG

Collected: 6/1/22 13:10

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10431

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:29	6/6/22 13:29		1	5.38	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:57	6/8/22 13:57		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:39	6/7/22 16:39		1	5.11	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	6/1/22 13:08	6/1/22 13:08			44.90	uS/cm			FA
pH	6/1/22 13:08	6/1/22 13:08			4.03	SU			FA
Temperature	6/1/22 13:08	6/1/22 13:08			22.17	C			FA
Turbidity	6/1/22 13:08	6/1/22 13:08			2.9	NTU			FA
Sulfide	6/1/22 13:08	6/1/22 13:08			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 13:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 13:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 13:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG

Sample Date: 6/1/22 13:10

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 6/1/22 13:35
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10432

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:51		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:59		1.015	0.000250	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	6/14/22 16:25	6/14/22 20:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: CES							
* Nitrogen, Nitrate/Nitrite	6/6/22 14:01	6/6/22 14:01		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB

Collected: 6/1/22 13:35

Customer ID:

Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10432

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: ELH							
* Total Organic Carbon	6/8/22 09:40	6/8/22 09:40		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	6/6/22 13:30	6/6/22 13:30		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	6/8/22 13:58	6/8/22 13:58		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	6/7/22 16:40	6/7/22 16:40		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARGE B

Sample Date: 6/1/22 13:35

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC10432

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGE8

Sample Date: 6/1/22 13:35

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC10432

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard Limit	Rec		Prec Limit
				Limit	Spike	MS	MSD				Rec	Limit	
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGE8

Sample Date: 6/1/22 13:35

Customer ID:

Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC10432

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments:

Definitions

Project Number: WMWBARG_1373

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete



Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By
		Location	Barry Gypsum

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS	500 mL	7	Alkalinity	250 mL
	2	Dissolved Metals	500 mL	4	Nitrates/Nitrites, TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments: N/N, TOC pH < 2 SU. BC 06/02/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	05/31/2022	13:38	7	Groundwater		BC10423
MW-6	05/31/2022	14:55	7	Groundwater		BC10424
MW-6 Dup	05/31/2022	14:55	7	Sample Duplicate		BC10425
MW-9	06/01/2022	08:45	7	Groundwater		BC10426
MW-10	06/01/2022	09:47	7	Groundwater		BC10427
PZ-11	06/01/2022	10:55	7	Groundwater		BC10428
FB-1	06/01/2022	11:10	5	Field Blank		BC10429
MW-7	06/01/2022	12:20	7	Groundwater		BC10430
MW-8	06/01/2022	13:10	7	Groundwater		BC10431
EB-1	06/01/2022	13:35	5	Equipment Blank		BC10432

Relinquished By	Received By	Date/Time
		06/02/2022 12:00

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1373	
Cooler Temp	2.3 °C	
Thermometer ID	7044-38281-2-1	
pH Strip ID	10275-59506-10-2	

Bottles/Pre-Preserved Bottles are provided by the GTL



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Barry Gypsum

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: MS/MSD collected @ MW-9.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	05/31/2022	13:38	1	Groundwater		BC10433
MW-6	05/31/2022	14:55	1	Groundwater		BC10434
MW-6 Dup	05/31/2022	14:55	1	Sample Duplicate		BC10435
MW-9	06/01/2022	08:45	3	Groundwater		BC10436
MW-10	06/01/2022	09:47	1	Groundwater		BC10437
PZ-11	06/01/2022	10:55	1	Groundwater		BC10438
FB-1	06/01/2022	11:10	1	Field Blank		BC10439
MW-7	06/01/2022	12:20	1	Groundwater		BC10440
MW-8	06/01/2022	13:10	1	Groundwater		BC10441
EB-1	06/01/2022	13:35	1	Equipment Blank		BC10442

Relinquished By	Received By	Date/Time
		06/02/2022 12:00

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	4677-23342-4-1		
Sample Event	1373		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	10275-59506-10-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative



Plant Barry Pooled Upgradient

2022 Compliance Event 2

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative



Plant Barry Gypsum Pond

2022 Compliance Event 2

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Multiple pH field readings for wells MW-8, MW-9 and MW-10 were qualified due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

E – Estimated reported value exceeded calibration range

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARPU_1391

Project/Site : Barry Pooled Upgradient
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

December 06, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on November 03, 2022. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2023

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2022.12.06
10:16:49 -06'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, c=US
United States, i=US United States
e=t.durmaske@southernco.com
Reason: I am the author of this document
Location:
Date: 2022-12-06 14:46:06.00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741264	WMWBARPU_1391
BC20155	741264	WMWBARPU_1391
BC20156	741264	WMWBARPU_1391
BC20157	741264	WMWBARPU_1391
BC20158	741264	WMWBARPU_1391
BC20159	741264	WMWBARPU_1391
BC20160	741264	WMWBARPU_1391

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741234	WMWBARPU_1391
BC20155	741234	WMWBARPU_1391
BC20156	741234	WMWBARPU_1391
BC20157	741234	WMWBARPU_1391
BC20158	741234	WMWBARPU_1391

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Revision 5

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741710	WMWBARPU_1391
BC20155	741710	WMWBARPU_1391
BC20156	741710	WMWBARPU_1391
BC20157	741710	WMWBARPU_1391
BC20158	741710	WMWBARPU_1391
BC20159	741710	WMWBARPU_1391
BC20160	741710	WMWBARPU_1391

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741586	WMWBARPU_1391
BC20155	741586	WMWBARPU_1391
BC20156	741586	WMWBARPU_1391
BC20157	741586	WMWBARPU_1391
BC20158	741586	WMWBARPU_1391

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741291	WMWBARPU_1391
BC20155	741291	WMWBARPU_1391
BC20156	741291	WMWBARPU_1391
BC20157	741291	WMWBARPU_1391
BC20158	741291	WMWBARPU_1391
BC20159	741291	WMWBARPU_1391
BC20160	741291	WMWBARPU_1391

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Revision 5

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	740907	WMWBARPU_1391
BC20155	740907	WMWBARPU_1391
BC20156	740907	WMWBARPU_1391
BC20157	740907	WMWBARPU_1391
BC20158	740907	WMWBARPU_1391
BC20159	740907	WMWBARPU_1391
BC20160	740907	WMWBARPU_1391

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $<2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BC20159
 - BC20160

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741806, 741807	WMWBARPU_1391
BC20155	741806, 741807	WMWBARPU_1391
BC20156	741806, 741807	WMWBARPU_1391
BC20157	741806, 741807	WMWBARPU_1391
BC20158	741806, 741807	WMWBARPU_1391

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Anions

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	741063, 741146, 741300	WMWBARPU_1391
BC20155	741063, 741146, 741300	WMWBARPU_1391
BC20156	741063, 741146, 741300	WMWBARPU_1391
BC20157	741063, 741146, 741300	WMWBARPU_1391
BC20158	741063, 741146, 741300	WMWBARPU_1391
BC20159	741063, 741146, 741300	WMWBARPU_1391
BC20160	741063, 741146, 741300	WMWBARPU_1391

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without dilution.

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	740881	WMWBARPU_1391
BC20155	740881	WMWBARPU_1391
BC20156	740881	WMWBARPU_1391
BC20157	740881	WMWBARPU_1391
BC20158	740881	WMWBARPU_1391
BC20159	740881	WMWBARPU_1391
BC20160	740881	WMWBARPU_1391

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met.
- 7. All samples were analyzed without a dilution factor.
- 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Pooled Upgradient

WMWBARPU_1391

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20154	740812	WMWBARPU_1391
BC20155	740812	WMWBARPU_1391
BC20156	740812	WMWBARPU_1391
BC20157	740812	WMWBARPU_1391
BC20158	740812	WMWBARPU_1391
BC20159	740812	WMWBARPU_1391
BC20160	740812	WMWBARPU_1391

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 11/1/22 14:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20154

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:32		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	11/4/22 15:06	11/10/22 11:32		1.015	1.59	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:32		1.015	0.0665	mg/L	0.008120	0.0406	
* Lithium, Total	11/4/22 15:06	11/10/22 11:32		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:32		1.015	1.89	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:32		1	9.37	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:32		1.015	4.38	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:32		1.015	2.82	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	1.60	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	1.91	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 13:12	11/10/22 12:24		1	9.16	mg/L			
Silicon, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	4.28	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 13:12	11/10/22 12:24		1.015	2.84	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 17:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.138	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.000115	mg/L	0.000081	0.000203	J
* Barium, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.110	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.00111	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.00169	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.0000860	mg/L	0.000068	0.000203	J
* Manganese, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.0166	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:18		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 17:18		1.015	0.948	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 11/1/22 14:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20154

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 17:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	0.0285	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	0.112	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	0.000889	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	0.00167	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	0.0161	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	0.955	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 13:12	11/4/22 14:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 13:35	11/4/22 13:35		1	2.01	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity to pH 4.5	11/15/22 12:20	11/15/22 12:22		1	1.52	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	31.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 12:22		1	1.52	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 12:22		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 22:14	11/4/22 22:14		1	1.99	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 11/1/22 14:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20154

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:27	11/8/22 12:27		1	3.30	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:09	11/8/22 16:09		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:10	11/10/22 11:10		1	4.59	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/1/22 14:19	11/1/22 14:19			51.53	uS/cm			FA
pH	11/1/22 14:19	11/1/22 14:19			4.74	SU			FA
Temperature	11/1/22 14:19	11/1/22 14:19			21.50	C			FA
Turbidity	11/1/22 14:19	11/1/22 14:19			4.19	NTU			FA
Sulfide	11/1/22 14:19	11/1/22 14:19			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 11/1/22 14:23

Customer ID:

Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC20154

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Aluminum, Dissolved	mg/L	-0.000108	0.010	0.100	0.167	0.162	0.100	0.0850 to 0.115	102	70.0 to 130	3.04	20.0
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20158	Antimony, Dissolved	mg/L	0.000364	0.00100	0.100	0.0943	0.0932	0.0911	0.0850 to 0.115	94.3	70.0 to 130	1.17	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20158	Arsenic, Dissolved	mg/L	0.0000209	0.000176	0.100	0.101	0.0979	0.0963	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20158	Barium, Dissolved	mg/L	0.0000273	0.00100	0.100	0.177	0.173	0.0980	0.0850 to 0.115	96.3	70.0 to 130	2.29	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20158	Beryllium, Dissolved	mg/L	0.0000107	0.000880	0.100	0.101	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20158	Boron, Dissolved	mg/L	0.000122	0.0650	1.00	1.08	1.08	1.02	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.100	0.0987	0.0988	0.0850 to 0.115	100	70.0 to 130	1.31	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20158	Calcium, Dissolved	mg/L	-0.0201	0.152	5.00	6.00	5.95	4.99	4.25 to 5.75	99.2	70.0 to 130	0.837	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20158	Chromium, Dissolved	mg/L	-0.0000609	0.000440	0.100	0.104	0.100	0.101	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20158	Cobalt, Dissolved	mg/L	-0.0000106	0.000147	0.100	0.108	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20158	Iron, Dissolved	mg/L	0.000220	0.0176	0.2	3.27	3.29	0.205	0.170 to 0.230	95.0	70.0 to 130	0.610	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 11/1/22 14:23

Customer ID:

Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC20154

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Lead, Dissolved	mg/L	0.0000038	0.000147	0.100	0.107	0.114	0.104	0.0850 to 0.115	107	70.0 to 130	6.33	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20158	Lithium, Dissolved	mg/L	0.000324	0.0154	0.200	0.211	0.212	0.203	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20158	Magnesium, Dissolved	mg/L	-0.0198	0.0462	5.00	7.03	7.01	5.12	4.25 to 5.75	103	70.0 to 130	0.285	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20158	Manganese, Dissolved	mg/L	-0.0000015	0.00033	0.100	0.241	0.235	0.102	0.0850 to 0.115	103	70.0 to 130	2.52	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20158	Molybdenum, Dissolved	mg/L	0.0000120	0.0002	0.100	0.103	0.102	0.0991	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20158	Potassium, Dissolved	mg/L	0.00272	0.367	10.0	10.1	9.63	9.65	8.50 to 11.5	96.4	70.0 to 130	4.76	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20158	Selenium, Dissolved	mg/L	0.0000824	0.00100	0.100	0.105	0.103	0.0990	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20158	Silicon, Dissolved	mg/L	-0.000325	0.0440	1.00	4.15	4.18	1.01	0.850 to 1.15	102	70.0 to 130	0.720	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Sodium, Dissolved	mg/L	-0.000807	0.0660	5.00	7.33	7.46	4.90	4.25 to 5.75	99.2	70.0 to 130	1.76	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0
BC20158	Thallium, Dissolved	mg/L	-0.0000367	0.000147	0.100	0.103	0.112	0.101	0.0850 to 0.115	103	70.0 to 130	8.37	20.0
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 14:23
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC20154

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BC20158	Alkalinity to pH 4.5	mg CaCO3/L					3.98	50.7	45.0 to 55.0			2.03	10.0
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 11/1/22 14:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20155

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:36		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	11/4/22 15:06	11/10/22 11:36		1.015	1.65	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:36		1.015	0.0694	mg/L	0.008120	0.0406	
* Lithium, Total	11/4/22 15:06	11/10/22 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:36		1.015	1.95	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:36		1	9.22	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:36		1.015	4.31	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:36		1.015	2.90	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	1.65	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	1.87	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 13:12	11/10/22 12:28		1	9.16	mg/L			
Silicon, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	4.28	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 13:12	11/10/22 12:28		1.015	2.69	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 17:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.147	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.000128	mg/L	0.000081	0.000203	J
* Barium, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.116	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.00124	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.00162	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.000105	mg/L	0.000068	0.000203	J
* Manganese, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.0162	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:21		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 17:21		1.015	0.886	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 11/1/22 14:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20155

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 17:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	0.0284	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	0.109	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	0.000974	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	0.00176	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	0.0167	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	0.965	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 13:12	11/4/22 14:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 13:37	11/4/22 13:37		1	2.03	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity to pH 4.5	11/15/22 12:20	11/15/22 12:25		1	1.44	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	38.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 12:25		1	1.44	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 12:25		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 22:31	11/4/22 22:31		1	2.05	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 11/1/22 14:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20155

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:29	11/8/22 12:29		1	3.31	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:10	11/8/22 16:10		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:12	11/10/22 11:12		1	4.70	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/1/22 14:19	11/1/22 14:19			51.53	uS/cm			FA
pH	11/1/22 14:19	11/1/22 14:19			4.74	SU			FA
Temperature	11/1/22 14:19	11/1/22 14:19			21.50	C			FA
Turbidity	11/1/22 14:19	11/1/22 14:19			4.19	NTU			FA
Sulfide	11/1/22 14:19	11/1/22 14:19			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 14:23
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BC20155

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20158	Aluminum, Dissolved	mg/L	-0.000108	0.010	0.100	0.167	0.162	0.100	0.0850 to 0.115	102	70.0 to 130	3.04	20.0
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20158	Antimony, Dissolved	mg/L	0.000364	0.00100	0.100	0.0943	0.0932	0.0911	0.0850 to 0.115	94.3	70.0 to 130	1.17	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20158	Arsenic, Dissolved	mg/L	0.0000209	0.000176	0.100	0.101	0.0979	0.0963	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20158	Barium, Dissolved	mg/L	0.0000273	0.00100	0.100	0.177	0.173	0.0980	0.0850 to 0.115	96.3	70.0 to 130	2.29	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20158	Beryllium, Dissolved	mg/L	0.0000107	0.000880	0.100	0.101	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20158	Boron, Dissolved	mg/L	0.000122	0.0650	1.00	1.08	1.08	1.02	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.100	0.0987	0.0988	0.0850 to 0.115	100	70.0 to 130	1.31	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20158	Calcium, Dissolved	mg/L	-0.0201	0.152	5.00	6.00	5.95	4.99	4.25 to 5.75	99.2	70.0 to 130	0.837	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20158	Chromium, Dissolved	mg/L	-0.0000609	0.000440	0.100	0.104	0.100	0.101	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20158	Cobalt, Dissolved	mg/L	-0.0000106	0.000147	0.100	0.108	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20158	Iron, Dissolved	mg/L	0.000220	0.0176	0.2	3.27	3.29	0.205	0.170 to 0.230	95.0	70.0 to 130	0.610	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 14:23
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BC20155

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Lead, Dissolved	mg/L	0.0000038	0.000147	0.100	0.107	0.114	0.104	0.0850 to 0.115	107	70.0 to 130	6.33	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20158	Lithium, Dissolved	mg/L	0.000324	0.0154	0.200	0.211	0.212	0.203	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20158	Magnesium, Dissolved	mg/L	-0.0198	0.0462	5.00	7.03	7.01	5.12	4.25 to 5.75	103	70.0 to 130	0.285	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20158	Manganese, Dissolved	mg/L	-0.0000015	0.00033	0.100	0.241	0.235	0.102	0.0850 to 0.115	103	70.0 to 130	2.52	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20158	Molybdenum, Dissolved	mg/L	0.0000120	0.0002	0.100	0.103	0.102	0.0991	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20158	Potassium, Dissolved	mg/L	0.00272	0.367	10.0	10.1	9.63	9.65	8.50 to 11.5	96.4	70.0 to 130	4.76	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20158	Selenium, Dissolved	mg/L	0.0000824	0.00100	0.100	0.105	0.103	0.0990	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20158	Silicon, Dissolved	mg/L	-0.000325	0.0440	1.00	4.15	4.18	1.01	0.850 to 1.15	102	70.0 to 130	0.720	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Sodium, Dissolved	mg/L	-0.000807	0.0660	5.00	7.33	7.46	4.90	4.25 to 5.75	99.2	70.0 to 130	1.76	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0
BC20158	Thallium, Dissolved	mg/L	-0.0000367	0.000147	0.100	0.103	0.112	0.101	0.0850 to 0.115	103	70.0 to 130	8.37	20.0
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 14:23
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BC20155

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20158	Alkalinity to pH 4.5	mg CaCO3/L					3.98	50.7	45.0 to 55.0			2.03	10.0
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 11/1/22 15:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20156

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:39		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	11/4/22 15:06	11/10/22 11:39		1.015	1.94	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:39		1.015	0.0330	mg/L	0.008120	0.0406	J
* Lithium, Total	11/4/22 15:06	11/10/22 11:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:39		1.015	2.00	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:39		1	8.62	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:39		1.015	4.03	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:39		1.015	3.02	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	1.86	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	2.01	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 13:12	11/10/22 12:31		1	8.56	mg/L			
Silicon, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	4.00	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 13:12	11/10/22 12:31		1.015	3.02	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 17:25		1.015	0.0454	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	11/4/22 15:06	11/4/22 17:25		1.015	0.0963	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 17:25		1.015	0.00120	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 17:25		1.015	0.00143	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	11/4/22 15:06	11/4/22 17:25		1.015	0.0185	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 17:25		1.015	0.890	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 11/1/22 15:23
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20156

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	0.0216	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	0.0948	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	0.00112	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	0.00142	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	0.0190	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	0.911	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 13:12	11/4/22 14:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 13:39	11/4/22 13:39		1	1.84	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity to pH 4.5	11/15/22 12:20	11/15/22 14:23		1	1.18	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	36.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 14:23		1	1.18	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 14:23		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 22:48	11/4/22 22:48		1	2.00	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU

Collected: 11/1/22 15:23

Customer ID:

Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20156

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:30	11/8/22 12:30		1	3.09	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:12	11/8/22 16:12		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:13	11/10/22 11:13		1	6.83	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/1/22 15:20	11/1/22 15:20			52.86	uS/cm			FA
pH	11/1/22 15:20	11/1/22 15:20			4.12	SU			FA
Temperature	11/1/22 15:20	11/1/22 15:20			20.26	C			FA
Turbidity	11/1/22 15:20	11/1/22 15:20			1.53	NTU			FA
Sulfide	11/1/22 15:20	11/1/22 15:20			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 15:23
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC20156

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Aluminum, Dissolved	mg/L	-0.000108	0.010	0.100	0.167	0.162	0.100	0.0850 to 0.115	102	70.0 to 130	3.04	20.0
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20158	Antimony, Dissolved	mg/L	0.000364	0.00100	0.100	0.0943	0.0932	0.0911	0.0850 to 0.115	94.3	70.0 to 130	1.17	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20158	Arsenic, Dissolved	mg/L	0.0000209	0.000176	0.100	0.101	0.0979	0.0963	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20158	Barium, Dissolved	mg/L	0.0000273	0.00100	0.100	0.177	0.173	0.0980	0.0850 to 0.115	96.3	70.0 to 130	2.29	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20158	Beryllium, Dissolved	mg/L	0.0000107	0.000880	0.100	0.101	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20158	Boron, Dissolved	mg/L	0.000122	0.0650	1.00	1.08	1.08	1.02	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.100	0.0987	0.0988	0.0850 to 0.115	100	70.0 to 130	1.31	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20158	Calcium, Dissolved	mg/L	-0.0201	0.152	5.00	6.00	5.95	4.99	4.25 to 5.75	99.2	70.0 to 130	0.837	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20158	Chromium, Dissolved	mg/L	-0.0000609	0.000440	0.100	0.104	0.100	0.101	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20158	Cobalt, Dissolved	mg/L	-0.0000106	0.000147	0.100	0.108	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20158	Iron, Dissolved	mg/L	0.000220	0.0176	0.2	3.27	3.29	0.205	0.170 to 0.230	95.0	70.0 to 130	0.610	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 11/1/22 15:23

Customer ID:

Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC20156

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20158	Lead, Dissolved	mg/L	0.000038	0.000147	0.100	0.107	0.114	0.104	0.0850 to 0.115	107	70.0 to 130	6.33	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20158	Lithium, Dissolved	mg/L	0.000324	0.0154	0.200	0.211	0.212	0.203	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20158	Magnesium, Dissolved	mg/L	-0.0198	0.0462	5.00	7.03	7.01	5.12	4.25 to 5.75	103	70.0 to 130	0.285	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20158	Manganese, Dissolved	mg/L	-0.000015	0.00033	0.100	0.241	0.235	0.102	0.0850 to 0.115	103	70.0 to 130	2.52	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20158	Molybdenum, Dissolved	mg/L	0.0000120	0.0002	0.100	0.103	0.102	0.0991	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20158	Potassium, Dissolved	mg/L	0.00272	0.367	10.0	10.1	9.63	9.65	8.50 to 11.5	96.4	70.0 to 130	4.76	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20158	Selenium, Dissolved	mg/L	0.0000824	0.00100	0.100	0.105	0.103	0.0990	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20158	Silicon, Dissolved	mg/L	-0.000325	0.0440	1.00	4.15	4.18	1.01	0.850 to 1.15	102	70.0 to 130	0.720	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Sodium, Dissolved	mg/L	-0.000807	0.0660	5.00	7.33	7.46	4.90	4.25 to 5.75	99.2	70.0 to 130	1.76	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0
BC20158	Thallium, Dissolved	mg/L	-0.0000367	0.000147	0.100	0.103	0.112	0.101	0.0850 to 0.115	103	70.0 to 130	8.37	20.0
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 15:23
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC20156

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20158	Alkalinity to pH 4.5	mg CaCO3/L					3.98	50.7	45.0 to 55.0			2.03	10.0
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 11/1/22 16:20
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20157

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	11/4/22 15:06	11/10/22 11:42		1.015	1.23	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:42		1.015	0.948	mg/L	0.008120	0.0406	
* Lithium, Total	11/4/22 15:06	11/10/22 11:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:42		1.015	2.35	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:42		1	8.90	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:42		1.015	4.16	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:42		1.015	2.09	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	1.16	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	2.38	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 13:12	11/10/22 12:34		1	8.54	mg/L			
Silicon, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	3.99	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 13:12	11/10/22 12:34		1.015	2.23	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 17:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.349	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.000379	mg/L	0.000081	0.000203	
* Barium, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.145	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.000429	mg/L	0.000406	0.001015	J
* Cadmium, Total	11/4/22 15:06	11/4/22 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.00209	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.00160	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.000411	mg/L	0.000068	0.000203	
* Manganese, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.0220	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:28		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.832	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 11/1/22 16:20
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20157

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 17:28		1.015	0.000558	mg/L	0.000508	0.001015	J
* Thallium, Total	11/4/22 15:06	11/4/22 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.0755	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.146	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.000421	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.00102	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.00173	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.0226	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.857	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	0.000658	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	11/4/22 13:12	11/4/22 14:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 13:40	11/4/22 13:40		1	1.62	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity to pH 4.5	11/15/22 12:20	11/15/22 14:23		1	1.58	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	36.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 14:23		1	1.58	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 14:23		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 23:03	11/4/22 23:03		1	2.19	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU

Collected: 11/1/22 16:20

Customer ID:

Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20157

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:31	11/8/22 12:31		1	2.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:13	11/8/22 16:13		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:14	11/10/22 11:14		1	7.11	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/1/22 16:16	11/1/22 16:16			50.18	uS/cm			FA
pH	11/1/22 16:16	11/1/22 16:16			4.42	SU			FA
Temperature	11/1/22 16:16	11/1/22 16:16			20.21	C			FA
Turbidity	11/1/22 16:16	11/1/22 16:16			4.92	NTU			FA
Sulfide	11/1/22 16:16	11/1/22 16:16			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 16:20
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC20157

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC20158	Aluminum, Dissolved	mg/L	-0.000108	0.010	0.100	0.167	0.162	0.100	0.0850 to 0.115	102	70.0 to 130	3.04	20.0
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20158	Antimony, Dissolved	mg/L	0.000364	0.00100	0.100	0.0943	0.0932	0.0911	0.0850 to 0.115	94.3	70.0 to 130	1.17	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20158	Arsenic, Dissolved	mg/L	0.0000209	0.000176	0.100	0.101	0.0979	0.0963	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20158	Barium, Dissolved	mg/L	0.0000273	0.00100	0.100	0.177	0.173	0.0980	0.0850 to 0.115	96.3	70.0 to 130	2.29	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20158	Beryllium, Dissolved	mg/L	0.0000107	0.000880	0.100	0.101	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20158	Boron, Dissolved	mg/L	0.000122	0.0650	1.00	1.08	1.08	1.02	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.100	0.0987	0.0988	0.0850 to 0.115	100	70.0 to 130	1.31	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20158	Calcium, Dissolved	mg/L	-0.0201	0.152	5.00	6.00	5.95	4.99	4.25 to 5.75	99.2	70.0 to 130	0.837	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20158	Chromium, Dissolved	mg/L	-0.0000609	0.000440	0.100	0.104	0.100	0.101	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20158	Cobalt, Dissolved	mg/L	-0.0000106	0.000147	0.100	0.108	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20158	Iron, Dissolved	mg/L	0.000220	0.0176	0.2	3.27	3.29	0.205	0.170 to 0.230	95.0	70.0 to 130	0.610	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 16:20
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC20157

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Lead, Dissolved	mg/L	0.0000038	0.000147	0.100	0.107	0.114	0.104	0.0850 to 0.115	107	70.0 to 130	6.33	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20158	Lithium, Dissolved	mg/L	0.000324	0.0154	0.200	0.211	0.212	0.203	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20158	Magnesium, Dissolved	mg/L	-0.0198	0.0462	5.00	7.03	7.01	5.12	4.25 to 5.75	103	70.0 to 130	0.285	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20158	Manganese, Dissolved	mg/L	-0.0000015	0.00033	0.100	0.241	0.235	0.102	0.0850 to 0.115	103	70.0 to 130	2.52	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20158	Molybdenum, Dissolved	mg/L	0.0000120	0.0002	0.100	0.103	0.102	0.0991	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20158	Potassium, Dissolved	mg/L	0.00272	0.367	10.0	10.1	9.63	9.65	8.50 to 11.5	96.4	70.0 to 130	4.76	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20158	Selenium, Dissolved	mg/L	0.0000824	0.00100	0.100	0.105	0.103	0.0990	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20158	Silicon, Dissolved	mg/L	-0.000325	0.0440	1.00	4.15	4.18	1.01	0.850 to 1.15	102	70.0 to 130	0.720	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Sodium, Dissolved	mg/L	-0.000807	0.0660	5.00	7.33	7.46	4.90	4.25 to 5.75	99.2	70.0 to 130	1.76	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0
BC20158	Thallium, Dissolved	mg/L	-0.0000367	0.000147	0.100	0.103	0.112	0.101	0.0850 to 0.115	103	70.0 to 130	8.37	20.0
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 11/1/22 16:20

Customer ID:

Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC20157

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20158	Alkalinity to pH 4.5	mg CaCO3/L					3.98	50.7	45.0 to 55.0			2.03	10.0
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 11/1/22 17:05
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20158

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	11/4/22 15:06	11/10/22 11:45		1.015	0.0501	mg/L	0.030000	0.1015	J
* Calcium, Total	11/4/22 15:06	11/10/22 11:45		1.015	1.01	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:45		1.015	3.82	mg/L	0.008120	0.0406	
* Lithium, Total	11/4/22 15:06	11/10/22 11:45		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:45		1.015	1.86	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:45		1	6.66	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:45		1.015	3.11	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:45		1.015	2.42	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	0.0500	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	1.04	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	3.08	mg/L	0.008120	0.0406	
* Lithium, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	1.88	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 13:12	11/10/22 12:37		1	6.70	mg/L			
Silicon, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	3.13	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 13:12	11/10/22 12:37		1.015	2.37	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	11/4/22 15:06	11/4/22 17:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.0636	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.000345	mg/L	0.000081	0.000203	
* Barium, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.0804	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:32		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 17:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.000212	mg/L	0.000203	0.001015	J
* Cobalt, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.00394	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.000170	mg/L	0.000068	0.000203	J
* Manganese, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.133	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:32		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 17:32		1.015	0.460	mg/L	0.169505	0.5075	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 11/1/22 17:05
Customer ID:
Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20158

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 17:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 17:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	0.0652	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	0.000131	mg/L	0.000081	0.000203	J
* Barium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	0.0807	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	0.00406	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	0.138	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	0.456	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 13:12	11/4/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 13:41	11/4/22 13:41		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
Alkalinity to pH 4.5	11/15/22 12:20	11/15/22 14:23		1	3.90	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	33.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
Bicarbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 14:23		1	3.90	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/15/22 12:20	11/15/22 14:23		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 23:22	11/4/22 23:22		1	6.18	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU

Collected: 11/1/22 17:05

Customer ID:

Submittal Date: 11/3/22 13:28

Laboratory ID Number: BC20158

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:32	11/8/22 12:32		1	2.37	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:14	11/8/22 16:14		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:15	11/10/22 11:15		1	11.3	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/1/22 17:02	11/1/22 17:02			53.01	uS/cm			FA
pH	11/1/22 17:02	11/1/22 17:02			4.60	SU			FA
Temperature	11/1/22 17:02	11/1/22 17:02			20.76	C			FA
Turbidity	11/1/22 17:02	11/1/22 17:02			2.93	NTU			FA
Sulfide	11/1/22 17:02	11/1/22 17:02			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 17:05
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC20158

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Aluminum, Dissolved	mg/L	-0.000108	0.010	0.100	0.167	0.162	0.100	0.0850 to 0.115	102	70.0 to 130	3.04	20.0
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20158	Antimony, Dissolved	mg/L	0.000364	0.00100	0.100	0.0943	0.0932	0.0911	0.0850 to 0.115	94.3	70.0 to 130	1.17	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20158	Arsenic, Dissolved	mg/L	0.0000209	0.000176	0.100	0.101	0.0979	0.0963	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20158	Barium, Dissolved	mg/L	0.0000273	0.00100	0.100	0.177	0.173	0.0980	0.0850 to 0.115	96.3	70.0 to 130	2.29	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20158	Beryllium, Dissolved	mg/L	0.0000107	0.000880	0.100	0.101	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20158	Boron, Dissolved	mg/L	0.000122	0.0650	1.00	1.08	1.08	1.02	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.100	0.0987	0.0988	0.0850 to 0.115	100	70.0 to 130	1.31	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20158	Calcium, Dissolved	mg/L	-0.0201	0.152	5.00	6.00	5.95	4.99	4.25 to 5.75	99.2	70.0 to 130	0.837	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20158	Chromium, Dissolved	mg/L	-0.0000609	0.000440	0.100	0.104	0.100	0.101	0.0850 to 0.115	104	70.0 to 130	3.92	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20158	Cobalt, Dissolved	mg/L	-0.0000106	0.000147	0.100	0.108	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20158	Iron, Dissolved	mg/L	0.000220	0.0176	0.2	3.27	3.29	0.205	0.170 to 0.230	95.0	70.0 to 130	0.610	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 11/1/22 17:05
Customer ID:
Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC20158

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20158	Lead, Dissolved	mg/L	0.0000038	0.000147	0.100	0.107	0.114	0.104	0.0850 to 0.115	107	70.0 to 130	6.33	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20158	Lithium, Dissolved	mg/L	0.000324	0.0154	0.200	0.211	0.212	0.203	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20158	Magnesium, Dissolved	mg/L	-0.0198	0.0462	5.00	7.03	7.01	5.12	4.25 to 5.75	103	70.0 to 130	0.285	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20158	Manganese, Dissolved	mg/L	-0.0000015	0.00033	0.100	0.241	0.235	0.102	0.0850 to 0.115	103	70.0 to 130	2.52	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20158	Molybdenum, Dissolved	mg/L	0.0000120	0.0002	0.100	0.103	0.102	0.0991	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20158	Potassium, Dissolved	mg/L	0.00272	0.367	10.0	10.1	9.63	9.65	8.50 to 11.5	96.4	70.0 to 130	4.76	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20158	Selenium, Dissolved	mg/L	0.0000824	0.00100	0.100	0.105	0.103	0.0990	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20158	Silicon, Dissolved	mg/L	-0.000325	0.0440	1.00	4.15	4.18	1.01	0.850 to 1.15	102	70.0 to 130	0.720	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20158	Sodium, Dissolved	mg/L	-0.000807	0.0660	5.00	7.33	7.46	4.90	4.25 to 5.75	99.2	70.0 to 130	1.76	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0
BC20158	Thallium, Dissolved	mg/L	-0.0000367	0.000147	0.100	0.103	0.112	0.101	0.0850 to 0.115	103	70.0 to 130	8.37	20.0
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 11/1/22 17:05

Customer ID:

Delivery Date: 11/3/22 13:28

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC20158

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20158	Alkalinity to pH 4.5	mg CaCO3/L					3.98	50.7	45.0 to 55.0			2.03	10.0
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 11/1/22 17:20
Customer ID:
Submittal Date: 11/3/22 13:29

Laboratory ID Number: BC20159

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:48		1	Not Detected	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	11/4/22 15:06	11/10/22 11:48		1.015	Not Detected	mg/L	0.03045	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.006090	0.01015	U	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000081	0.000203	U	
* Barium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	11/4/22 15:06	11/4/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: CRB								
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:35		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	11/4/22 13:42	11/4/22 13:42		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 11/1/22 17:20
Customer ID:
Submittal Date: 11/3/22 13:29

Laboratory ID Number: BC20159

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 23:38	11/4/22 23:38		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:33	11/8/22 12:33		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:15	11/8/22 16:15		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:16	11/10/22 11:16		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 11/1/22 17:20

Customer ID:

Delivery Date: 11/3/22 13:29

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC20159

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 11/1/22 17:20

Customer ID:

Delivery Date: 11/3/22 13:29

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC20159

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 11/1/22 17:20

Customer ID:

Delivery Date: 11/3/22 13:29

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC20159

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 11/1/22 17:30
Customer ID:
Submittal Date: 11/3/22 13:29

Laboratory ID Number: BC20160

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:51		1	Not Detected	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	11/4/22 15:06	11/10/22 11:51		1.015	Not Detected	mg/L	0.03045	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.006090	0.01015	U	
* Arsenic, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000081	0.000203	U	
* Barium, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	11/4/22 15:06	11/4/22 17:39		1.015	0.000209	mg/L	0.000203	0.001015	J	
* Cobalt, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Molybdenum, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	11/4/22 15:06	11/4/22 17:39		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: CRB								
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 19:39		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	11/4/22 13:42	11/4/22 13:42		1	0.249	mg/L as N	0.20	0.3	J	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	11/4/22 11:30	11/8/22 14:00		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB

Collected: 11/1/22 17:30

Customer ID:

Submittal Date: 11/3/22 13:29

Laboratory ID Number: BC20160

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 23:53	11/4/22 23:53		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:35	11/8/22 12:35		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 16:16	11/8/22 16:16		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 11:18	11/10/22 11:18		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 11/1/22 17:30

Customer ID:

Delivery Date: 11/3/22 13:29

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC20160

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20160	Aluminum, Total	mg/L	0.000299	0.010	0.100	0.0863	0.0841	0.0872	0.0850 to 0.115	86.3	70.0 to 130	2.58	20.0
BC20160	Antimony, Total	mg/L	0.000273	0.00100	0.100	0.0884	0.0937	0.0918	0.0850 to 0.115	88.4	70.0 to 130	5.82	20.0
BC20160	Arsenic, Total	mg/L	0.0000108	0.000176	0.100	0.0943	0.0921	0.0948	0.0850 to 0.115	94.3	70.0 to 130	2.36	20.0
BC20160	Barium, Total	mg/L	-0.0000171	0.00100	0.100	0.0947	0.0996	0.0970	0.0850 to 0.115	94.7	70.0 to 130	5.04	20.0
BC20160	Beryllium, Total	mg/L	0.0000145	0.000880	0.100	0.101	0.0964	0.0998	0.0850 to 0.115	101	70.0 to 130	4.66	20.0
BC20160	Boron, Total	mg/L	0.000017	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20160	Cadmium, Total	mg/L	0.0000249	0.000147	0.100	0.0977	0.0959	0.0965	0.0850 to 0.115	97.7	70.0 to 130	1.86	20.0
BC20160	Calcium, Total	mg/L	-0.000603	0.152	5.00	4.87	4.84	4.90	4.25 to 5.75	97.4	70.0 to 130	0.618	20.0
BC20160	Chloride	mg/L	0.00248	1.00	10.0	10.1	10.2	9.78	9.00 to 11.0	101	80.0 to 120	0.985	20.0
BC20160	Chromium, Total	mg/L	-0.0000077	0.000440	0.100	0.0956	0.0932	0.0965	0.0850 to 0.115	95.4	70.0 to 130	2.54	20.0
BC20160	Cobalt, Total	mg/L	-0.0000047	0.000147	0.100	0.0987	0.0957	0.0993	0.0850 to 0.115	98.7	70.0 to 130	3.09	20.0
BC20160	Fluoride	mg/L	0.0518	0.125	2.50	2.33	2.41	2.53	2.25 to 2.75	93.2	80.0 to 120	3.38	20.0
BC20160	Iron, Total	mg/L	-0.000183	0.0176	0.2	0.206	0.204	0.202	0.170 to 0.230	103	70.0 to 130	0.976	20.0
BC20160	Lead, Total	mg/L	0.0000194	0.000147	0.100	0.0934	0.0918	0.0943	0.0850 to 0.115	93.4	70.0 to 130	1.73	20.0
BC20160	Lithium, Total	mg/L	0.000399	0.0154	0.200	0.211	0.207	0.204	0.170 to 0.230	106	70.0 to 130	1.91	20.0
BC20160	Magnesium, Total	mg/L	-0.00899	0.0462	5.00	5.15	5.14	5.13	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC20160	Manganese, Total	mg/L	0.0000335	0.00033	0.100	0.0984	0.0955	0.100	0.0850 to 0.115	98.4	70.0 to 130	2.99	20.0
BC20158	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00388	0.00392	0.00392	0.00340 to 0.00460	97.0	70.0 to 130	1.03	20.0
BC20160	Molybdenum, Total	mg/L	-0.0000002	0.0002	0.100	0.0948	0.0940	0.0960	0.0850 to 0.115	94.8	70.0 to 130	0.847	20.0
BC20160	Potassium, Total	mg/L	0.00165	0.367	10.0	9.31	9.07	9.11	8.50 to 11.5	93.1	70.0 to 130	2.61	20.0
BC20160	Selenium, Total	mg/L	0.0000830	0.00100	0.100	0.0965	0.0965	0.0981	0.0850 to 0.115	96.5	70.0 to 130	0.00	20.0
BC20160	Silicon, Total	mg/L	-0.000040	0.0440	1.00	1.02	1.01	1.01	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BC20160	Sodium, Total	mg/L	0.000894	0.0660	5.00	5.14	5.05	4.95	4.25 to 5.75	103	70.0 to 130	1.77	20.0
BC20160	Sulfate	mg/L	0.154	2.0	20.0	20.0	20.4	19.4	18.0 to 22.0	100	80.0 to 120	1.98	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 11/1/22 17:30

Customer ID:

Delivery Date: 11/3/22 13:29

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC20160

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BC20160	Thallium, Total	mg/L	0.0000112	0.000147	0.100	0.0928	0.0915	0.0949	0.0850 to 0.115	92.8	70.0 to 130	1.41	20.0
BC20160	Total Organic Carbon	mg/L	0.242	1.00	10.0	9.70	9.89	9.37		97.0	80.0 to 120	1.94	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 11/1/22 17:30

Customer ID:

Delivery Date: 11/3/22 13:29

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC20160

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20160	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.16	0.253	2.04	1.80 to 2.20	95.6	90.0 to 110	1.59	15.0
BC20157	Solids, Dissolved	mg/L	1.00	25.0			35.3	51.0	40.0 to 60.0			1.96	10.0

Comments:

Definitions

Project Number: WMWBARPU_1391

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Barry Pooled Upgradient

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrate/Nitrite, TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	11/01/2022	14:23	6	Groundwater		BC20154
MW-4 Dup	11/01/2022	14:23	6	Sample Duplicate		BC20155
MW-3	11/01/2022	15:23	6	Groundwater		BC20156
MW-2	11/01/2022	16:20	6	Groundwater		BC20157
MW-1	11/01/2022	17:05	6	Groundwater		BC20158
FB-1	11/01/2022	17:20	5	Field Blank		BC20159
EB-1	11/01/2022	17:30	5	Equipment Blank		BC20160

Relinquished By	Received By	Date/Time
<i>HAB</i>	<i>Barry Cohen</i>	11/03/2022 11:01

SmarTroll ID	7586-41443-5-2	All pH requirements have been met <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	
Sample Event	1391	
Cooler Temp	1.4 °C	
Thermometer ID	7044-38281-2-1	
pH Strip ID	10429-60252-10-8	

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets.
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks.



Chain of Custody

Groundwater

APC General Testing Laboratory

 Field Complete
 Lab Complete

 Outside Lab

 Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Barry Pooled Upgradient

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Rad MS/MSD @ MW-3

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	11/01/2022	14:23	1	Groundwater		BC20161
MW-4 Dup	11/01/2022	14:23	1	Sample Duplicate		BC20162
MW-3	11/01/2022	15:23	3	Groundwater		BC20163
MW-2	11/01/2022	16:20	1	Groundwater		BC20164
MW-1	11/01/2022	17:05	1	Groundwater		BC20165
FB-1	11/01/2022	17:20	1	Field Blank		BC20166
EB-1	11/01/2022	17:30	1	Equipment Blank		BC20167

Relinquished By	Received By	Date/Time
<i>H-AB</i>	<i>Barry Pooled</i>	11/03/2022 11:01

SmarTroll ID	7586-41443-5-2	All pH requirements have been met <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	
Sample Event	1391	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	10429-60252-10-8	

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets.
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks.

December 13, 2022

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARPU_1391
Pace Project No.: 30537403

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARPU_1391
Pace Project No.: 30537403

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30537403001	BC20161 MW-4	Water	11/01/22 14:23	11/10/22 10:40
30537403002	BC20162 MW-4 Dup	Water	11/01/22 14:23	11/10/22 10:40
30537403003	BC20163 MW-3	Water	11/01/22 15:23	11/10/22 10:40
30537403004	BC20163 MW-3 MS	Water	11/01/22 15:23	11/10/22 10:40
30537403005	BC20163 MW-3 MSD	Water	11/01/22 15:23	11/10/22 10:40
30537403006	BC20164 MW-2	Water	11/01/22 16:20	11/10/22 10:40
30537403007	BC20165 MW-1	Water	11/01/22 17:05	11/10/22 10:40
30537403008	BC20166 FB-1	Water	11/01/22 17:20	11/10/22 10:40
30537403009	BC20167 EB-1	Water	11/01/22 17:30	11/10/22 10:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARPU_1391
Pace Project No.: 30537403

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30537403001	BC20161 MW-4	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537403002	BC20162 MW-4 Dup	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537403003	BC20163 MW-3	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537403004	BC20163 MW-3 MS	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30537403005	BC20163 MW-3 MSD	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30537403006	BC20164 MW-2	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537403007	BC20165 MW-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537403008	BC20166 FB-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537403009	BC20167 EB-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1391
Pace Project No.: 30537403

Method: EPA 9315
Description: 9315 Total Radium
Client: Alabama Power
Date: December 13, 2022

General Information:

9 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1391

Pace Project No.: 30537403

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: December 13, 2022

General Information:

9 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1391
Pace Project No.: 30537403

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: December 13, 2022

General Information:

7 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20161 MW-4 **Lab ID: 30537403001** Collected: 11/01/22 14:23 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.691 ± 0.276 (0.291) C:103% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.667U ± 0.424 (0.787) C:68% T:82%	pCi/L	12/12/22 13:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.36 ± 0.700 (1.08)	pCi/L	12/12/22 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20162 MW-4 Dup **Lab ID: 30537403002** Collected: 11/01/22 14:23 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.457 ± 0.201 (0.237) C:101% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.10 ± 0.453 (0.742) C:86% T:90%	pCi/L	12/12/22 13:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.56 ± 0.654 (0.979)	pCi/L	12/12/22 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20163 MW-3 **Lab ID: 30537403003** Collected: 11/01/22 15:23 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.304 ± 0.193 (0.302) C:98% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.226U ± 0.341 (0.737) C:78% T:89%	pCi/L	12/12/22 13:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.530U ± 0.534 (1.04)	pCi/L	12/12/22 17:05	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20163 MW-3 MS **Lab ID: 30537403004** Collected: 11/01/22 15:23 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	107.65 %REC ± NA (NA) C:NA T:NA	pCi/L	12/09/22 13:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	81.74 %REC ± NA (NA) C:NA T:NA	pCi/L	12/12/22 13:05	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20163 MW-3 MSD **Lab ID: 30537403005** Collected: 11/01/22 15:23 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	98.69 %REC 8.68RPD ± NA (NA) C:NA T:NA	pCi/L	12/09/22 13:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	92.07 %REC 11.88 RPD ± NA (NA) C:NA T:NA	pCi/L	12/12/22 13:05	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20164 MW-2 **Lab ID: 30537403006** Collected: 11/01/22 16:20 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.675 ± 0.292 (0.371) C:99% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.325U ± 0.294 (0.592) C:83% T:86%	pCi/L	12/12/22 13:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.000 ± 0.586 (0.963)	pCi/L	12/12/22 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20165 MW-1 **Lab ID: 30537403007** Collected: 11/01/22 17:05 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.356 ± 0.211 (0.298) C:101% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.757U ± 0.420 (0.770) C:85% T:82%	pCi/L	12/12/22 13:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.11 ± 0.631 (1.07)	pCi/L	12/12/22 17:05	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20166 FB-1 **Lab ID: 30537403008** Collected: 11/01/22 17:20 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0284U ± 0.0997 (0.252) C:100% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.288U ± 0.322 (0.671) C:80% T:85%	pCi/L	12/12/22 13:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.316U ± 0.422 (0.923)	pCi/L	12/12/22 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

Sample: BC20167 EB-1 **Lab ID: 30537403009** Collected: 11/01/22 17:30 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0899U ± 0.122 (0.258) C:102% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.200U ± 0.330 (0.719) C:78% T:87%	pCi/L	12/12/22 13:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.290U ± 0.452 (0.977)	pCi/L	12/12/22 17:05	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

QC Batch: 546315

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30537403001, 30537403002, 30537403003, 30537403004, 30537403005, 30537403006, 30537403007, 30537403008, 30537403009

METHOD BLANK: 2653319

Matrix: Water

Associated Lab Samples: 30537403001, 30537403002, 30537403003, 30537403004, 30537403005, 30537403006, 30537403007, 30537403008, 30537403009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.264 ± 0.281 (0.583) C:83% T:92%	pCi/L	12/12/22 13:03	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARPU_1391

Pace Project No.: 30537403

QC Batch: 546313

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30537403001, 30537403002, 30537403003, 30537403004, 30537403005, 30537403006, 30537403007, 30537403008, 30537403009

METHOD BLANK: 2653314

Matrix: Water

Associated Lab Samples: 30537403001, 30537403002, 30537403003, 30537403004, 30537403005, 30537403006, 30537403007, 30537403008, 30537403009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0637 ± 0.0667 (0.122) C:99% T:NA	pCi/L	12/09/22 13:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: WMWBARPU_1391
Pace Project No.: 30537403

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARPU_1391
Pace Project No.: 30537403

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30537403001	BC20161 MW-4	EPA 9315	546313		
30537403002	BC20162 MW-4 Dup	EPA 9315	546313		
30537403003	BC20163 MW-3	EPA 9315	546313		
30537403004	BC20163 MW-3 MS	EPA 9315	546313		
30537403005	BC20163 MW-3 MSD	EPA 9315	546313		
30537403006	BC20164 MW-2	EPA 9315	546313		
30537403007	BC20165 MW-1	EPA 9315	546313		
30537403008	BC20166 FB-1	EPA 9315	546313		
30537403009	BC20167 EB-1	EPA 9315	546313		
30537403001	BC20161 MW-4	EPA 9320	546315		
30537403002	BC20162 MW-4 Dup	EPA 9320	546315		
30537403003	BC20163 MW-3	EPA 9320	546315		
30537403004	BC20163 MW-3 MS	EPA 9320	546315		
30537403005	BC20163 MW-3 MSD	EPA 9320	546315		
30537403006	BC20164 MW-2	EPA 9320	546315		
30537403007	BC20165 MW-1	EPA 9320	546315		
30537403008	BC20166 FB-1	EPA 9320	546315		
30537403009	BC20167 EB-1	EPA 9320	546315		
30537403001	BC20161 MW-4	Total Radium Calculation	553207		
30537403002	BC20162 MW-4 Dup	Total Radium Calculation	553207		
30537403003	BC20163 MW-3	Total Radium Calculation	553207		
30537403006	BC20164 MW-2	Total Radium Calculation	553207		
30537403007	BC20165 MW-1	Total Radium Calculation	553207		
30537403008	BC20166 FB-1	Total Radium Calculation	553207		
30537403009	BC20167 EB-1	Total Radium Calculation	553207		

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CHAIN-OF-CUSTODY / Analytical Request Document

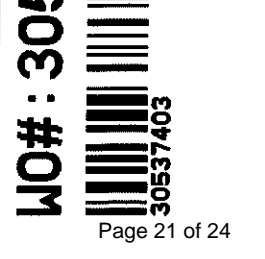
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Alabama Power Company	Report To: Brooke Caton	Attention: Brooke Caton	Company Name: Alabama Power Co.		
Address: 744 Highway 87 GSC Bldg #8	Copy To: Renee Jernigan & Blaine Denton	Address: 744 Highway 87 GSC Bldg #8	CCR		
Calera, AL 35040	Purchase Order #: APC10755638	Face Quote:	State / Location: AL		
Email To: tbwill@southernco.com	Project Name: Plant Barry Pooled Upgradient	Face Project Manager: Skyler Richmond	Requested Analysis / Filtered (Y/N)		
Phone: 205-684-6101 Fax:	Project Number: WMBARPU_1391	Pace Profile #: 16788			
Requested Due Date: 28 days					

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	SAMPLE TYPE (G=GRAB O=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analytes Test Y/N	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)
								DATE	TIME							
1	BC20161 MW-4	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient				G	11/1/2022	14:23	1	X	X	X	X	X	
2	BC20162 MW-4 Dup	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient	x			G	11/1/2022	14:23	1	X	X	X	X	X	
3	BC20163 MW-3	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient		x		G	11/1/2022	15:23	3	X	X	X	X	X	100
4	BC20164 MW-2	APCO-BY-UP-MW-2	APCO_Barry_Pooled_Upgradient				G	11/1/2022	16:20	1	X	X	X	X	X	003,004,005
5	BC20165 MW-1	APCO-BY-UP-MW-1	APCO_Barry_Pooled_Upgradient				G	11/1/2022	17:05	1	X	X	X	X	X	006,007
6	BC20166 FB-1	APCO-BY-UP-FB-01	APCO_Barry_Pooled_Upgradient				G	11/1/2022	17:20	1	X	X	X	X	X	008
7	BC20167 EB-1	APCO-BY-UP-EB-01	APCO_Barry_Pooled_Upgradient				G	11/1/2022	17:30	1	X	X	X	X	X	009
8																
9																
10																
11																
12																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton / APC-GTL	11/14/2022	13:26	<i>[Signature]</i>	11-10-22	10:40	

WO# : 30537403



30537403

Page 21 of 24

SAMPLER NAME AND SIGNATURE
 PRINT NAME of SAMPLER: Dallas Gentry
 SIGNATURE of SAMPLER: *[Signature]*
 DATE SIGNED: *[Date]*

Received on: *[Date]*
 Ice (Y/N) *[Y]*
 Custody Sealed (Y/N) *[Y]*
 Cooler (Y/N) *[Y]*
 Samples (Y/N) *[Y]*
 Interact (Y/N) *[Y]*

Pace
ANALYTICAL SERVICES

DC#_Title: ENV-FRM-GBUR-0088 v02_Sample Condition Upon Receipt-
Pittsburgh

Effective Date: 10/03/2022

Client Name: Alabama

Project #:

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 58701898 2333

Examined By	<u>PS</u>
Labeled By	<u>PS</u>
Temped By	<u>—</u>

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: — Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C
Temp should be above freezing to 6°C

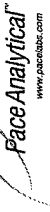
Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				<u>1000421</u>	<u>—</u>
Chain of Custody Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out: -Were client corrections present on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC: -Includes date/time/ID	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
Matrix:	<u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Correct Containers Used: -Pace Containers Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	
Orthophosphate field filtered:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.	
Hex Cr Aqueous samples field filtered:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.	
Organic Samples checked for dechlorination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.	
Filtered volume received for dissolved tests:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	
All containers meet method preservation requirements:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>PS</u>	Date/Time of Preservation
				Lot# of added Preservative	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.	
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.	
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Rad Samples Screened <0.5 mrem/hr.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>PS</u>	Date: <u>11/10/22</u> Survey Meter SN: <u>1563</u>
Comments:					

WO#: 30537403
 PM: SCR Due Date: 12/12/22
 CLIENT: ALABAMA PWR

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.

PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMS
Date: 11/17/2022
Worklist: 69950
Matrix: WT

Method Blank Assessment	
MB Sample ID	2653314
MB concentration:	0.064
M/B 2 Sigma CSU:	0.067
MB MDC:	0.122
MB Numerical Performance Indicator:	1.87
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS	Y
Count Date:	12/9/2022	LCS D69950
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.021	24.021
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.512	4.776
Target Conc. (pCi/L, g, F):	4.686	0.057
Uncertainty (Calculated):	0.056	4.774
Result (pCi/L, g, F):	4.451	0.823
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.773	0.00
Numerical Performance Indicator:	-0.62	99.96%
Status vs Numerical Indicator:	Pass	Pass
Percent Recovery:	94.79%	N/A
Status vs Recovery:	Pass	125%
Upper % Recovery Limits:	125%	75%
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	
Sample I.D.:	LCS69950
Duplicate Sample I.D.:	LCS D69950
Sample Result (pCi/L, g, F):	4.451
Sample Duplicate Result (pCi/L, g, F):	0.773
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.774
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.823
NO	
Are sample and/or duplicate results below RL?	-0.560
Duplicate Numerical Performance Indicator:	5.31%
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	Pass
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	25%
% RPD Limit:	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	11/2/2022	11/1/2022
Sample I.D.:	30537401007	30537403003
Sample MS I.D.:	30537401008	30537403004
Sample MSD I.D.:	30537401009	30537403005
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.022	24.022
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):	0.20	0.20
MS Aliquot (L, g, F):	0.299	0.290
MS Target Conc. (pCi/L, g, F):	16.044	16.559
MSD Aliquot (L, g, F):	0.295	0.306
MSD Target Conc. (pCi/L, g, F):	16.267	15.686
MS Spike Uncertainty (calculated):	0.193	0.199
MSD Spike Uncertainty (calculated):	0.195	0.188
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.642	0.304
Sample Matrix Spike Result:	0.248	0.193
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	18.293	18.130
Sample Matrix Spike Duplicate Result:	2.897	2.865
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	18.349	15.785
MS Numerical Performance Indicator:	2.899	2.507
MSD Numerical Performance Indicator:	1.081	0.863
MS Percent Recovery:	0.968	-0.159
MSD Percent Recovery:	110.02%	107.65%
MS Status vs Numerical Indicator:	Pass	Pass
MSD Status vs Numerical Indicator:	Pass	Pass
MS Status vs Recovery:	N/A	N/A
MSD Status vs Recovery:	N/A	N/A
MS/MSD Upper % Recovery Limits:	125%	125%
MS/MSD Lower % Recovery Limits:	75%	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30537401007
Sample MS I.D.:	30537401008
Sample MSD I.D.:	30537401009
Sample Matrix Spike Result:	18.293
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.897
Sample Matrix Spike Duplicate Result:	18.349
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	2.899
Duplicate Numerical Performance Indicator:	-0.027
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	25%
% RPD Limit:	

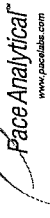
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

VAM 12/9/22

VAM 12.10.22

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 11/16/2022
Worklist: 69951
Matrix: WT

Method Blank Assessment	
MB Sample ID	265319
MB concentration:	0.264
MB 2 Sigma CSU:	0.281
MB MDC:	0.583
MB Numerical Performance Indicator:	1.84
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD69951	LCSD69951
Count Date:	12/12/2022
Spike I.D.:	22-029
Decay Corrected Spike Concentration (pCi/mL):	19.426
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.806
Target Conc. (pCi/L, g, F):	4.818
Uncertainty (Calculated):	0.347
Result (pCi/L, g, F):	5.546
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.330
Numerical Performance Indicator:	1.04
Percent Recovery:	115.11%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Duritz/12/22

VAL 12/13/22

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1
Sample I.D.	11/12/2022
Sample MS I.D.	30537401007
Sample MS I.D.	30537401008
Sample MS I.D.	30537401009
Spike I.D.:	22-029
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19.684
Spike Volume Used in MS (mL):	0.40
Spike Volume Used in MSD (mL):	0.40
MS Aliquot (L, g, F):	0.805
MS Target Conc. (pCi/L, g, F):	9.747
MSD Aliquot (L, g, F):	0.809
MSD Target Conc. (pCi/L, g, F):	9.738
MSD Spike Uncertainty (calculated):	0.704
MSD Spike Uncertainty (calculated):	0.701
Sample Result:	1.285
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.432
Sample Matrix Spike Result:	11.817
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.305
Sample Matrix Spike Duplicate Result:	10.043
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.994
MS Numerical Performance Indicator:	0.599
MS Numerical Performance Indicator:	-0.890
MS Percent Recovery:	107.65%
MSD Percent Recovery:	89.94%
MS Status vs Numerical Indicator:	Pass
MSD Status vs Numerical Indicator:	Pass
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	MS/MSD 2
Sample MS I.D.	11/12/2022
Sample MS I.D.	30537403003
Sample MS I.D.	30537403004
Sample MS I.D.	30537403005
Spike I.D.:	22-029
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19.684
Spike Volume Used in MS (mL):	0.40
Spike Volume Used in MSD (mL):	0.40
MS Aliquot (L, g, F):	0.805
MS Target Conc. (pCi/L, g, F):	9.747
MSD Aliquot (L, g, F):	0.809
MSD Target Conc. (pCi/L, g, F):	9.738
MSD Spike Uncertainty (calculated):	0.704
MSD Spike Uncertainty (calculated):	0.701
Sample Result:	1.285
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.432
Sample Matrix Spike Result:	11.817
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.305
Sample Matrix Spike Duplicate Result:	10.043
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.994
MS Numerical Performance Indicator:	0.599
MS Numerical Performance Indicator:	-0.890
MS Percent Recovery:	107.65%
MSD Percent Recovery:	89.94%
MS Status vs Numerical Indicator:	Pass
MSD Status vs Numerical Indicator:	Pass
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Duritz/12/22

VAL 12/13/22

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARG_1392

Project/Site : Barry Gypsum
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

December 08, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on November 03, 2022. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2023

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2022.12.08
10:25:39 -06'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, o=US
United States, +4US United States
e=tdmaske@southernco.com
Reason: I am the author of this document
Location:
Date: 2022-12-08 13:45:06.00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741253	WMWBARG_1392
BC20119	741253	WMWBARG_1392
BC20120	741253	WMWBARG_1392
BC20121	741253	WMWBARG_1392
BC20122	741253	WMWBARG_1392
BC20123	741253	WMWBARG_1392
BC20124	741253	WMWBARG_1392
BC20125	741253	WMWBARG_1392
BC20126	741253	WMWBARG_1392
BC20127	741253	WMWBARG_1392

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed, and all acceptance criteria were met.

- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741223	WMWBARG_1392
BC20119	741223	WMWBARG_1392
BC20120	741223	WMWBARG_1392
BC20121	741223	WMWBARG_1392
BC20123	741223	WMWBARG_1392
BC20124	741223	WMWBARG_1392
BC20125	741223	WMWBARG_1392
BC20126	741223	WMWBARG_1392

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741694	WMWBARG_1392
BC20119	741694	WMWBARG_1392
BC20120	741694	WMWBARG_1392
BC20121	741694	WMWBARG_1392
BC20122	741694	WMWBARG_1392
BC20123	741694	WMWBARG_1392
BC20124	741694	WMWBARG_1392
BC20125	741694	WMWBARG_1392
BC20126	741694	WMWBARG_1392
BC20127	741694	WMWBARG_1392

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741571	WMWBARG_1392
BC20119	741571	WMWBARG_1392
BC20120	741571	WMWBARG_1392
BC20121	741571	WMWBARG_1392
BC20123	741571	WMWBARG_1392
BC20124	741571	WMWBARG_1392
BC20125	741571	WMWBARG_1392
BC20126	741571	WMWBARG_1392

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional

QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741290	WMWBARG_1392
BC20119	741290	WMWBARG_1392
BC20120	741290	WMWBARG_1392
BC20121	741290	WMWBARG_1392
BC20122	741290	WMWBARG_1392
BC20123	741290	WMWBARG_1392
BC20124	741290	WMWBARG_1392
BC20125	741290	WMWBARG_1392
BC20126	741290	WMWBARG_1392
BC20127	741290	WMWBARG_1392

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met.
7. All samples were analyzed without dilution.
 8. The raw data results are shown with dilution factors included.

Total Dissolved Solids

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741053	WMWBARG_1392
BC20119	741053	WMWBARG_1392
BC20120	741053	WMWBARG_1392
BC20121	741053	WMWBARG_1392
BC20122	741053	WMWBARG_1392
BC20123	741053	WMWBARG_1392
BC20124	741053	WMWBARG_1392
BC20125	741053	WMWBARG_1392
BC20126	741053	WMWBARG_1392
BC20127	741053	WMWBARG_1392

4. All of the above samples were analyzed and prepared by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD was $\leq 10\%$
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BC20122
 - BC20127

Alkalinity

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741866, 741867	WMWBARG_1392
BC20119	741866, 741867	WMWBARG_1392
BC20120	741866, 741867	WMWBARG_1392
BC20121	741866, 741867	WMWBARG_1392
BC20123	741866, 741867	WMWBARG_1392
BC20124	741866, 741867	WMWBARG_1392
BC20125	741866, 741867	WMWBARG_1392
BC20126	741866, 741867	WMWBARG_1392

4. All of the above samples were analyzed and prepared by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Anions

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	741062, 741145, 741299	WMWBARG_1392
BC20119	741062, 741145, 741299	WMWBARG_1392
BC20120	741062, 741145, 741299	WMWBARG_1392
BC20121	741062, 741145, 741299	WMWBARG_1392
BC20122	741062, 741145, 741299	WMWBARG_1392
BC20123	741062, 741145, 741299	WMWBARG_1392
BC20124	741062, 741145, 741299	WMWBARG_1392
BC20125	741062, 741145, 741299	WMWBARG_1392
BC20126	741062, 741145, 741299	WMWBARG_1392
BC20127	741062, 741145, 741299	WMWBARG_1392

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, & SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Revision 5

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BC20118	Chloride	2
BC20119	Chloride	2
BC20121	Sulfate	3

8. The raw data results are shown with dilution factors included.

Nitrate-Nitrite

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	740880	WMWBARG_1392
BC20119	740880	WMWBARG_1392
BC20120	740880	WMWBARG_1392
BC20121	740880	WMWBARG_1392
BC20122	740880	WMWBARG_1392
BC20123	740880	WMWBARG_1392
BC20124	740880	WMWBARG_1392
BC20125	740880	WMWBARG_1392
BC20126	740880	WMWBARG_1392
BC20127	740880	WMWBARG_1392

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Gypsum

WMWBARG_1392

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC20118	740811	WMWBARG_1392
BC20119	740811	WMWBARG_1392
BC20120	740811	WMWBARG_1392
BC20121	740811	WMWBARG_1392
BC20122	740811	WMWBARG_1392
BC20123	740811	WMWBARG_1392
BC20124	740811	WMWBARG_1392
BC20125	740811	WMWBARG_1392
BC20126	740811	WMWBARG_1392
BC20127	740811	WMWBARG_1392

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.

Revision 5

8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 11/2/22 13:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20118

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 10:59		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	11/4/22 15:06	11/10/22 10:59		1.015	1.96	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 10:59		1.015	0.0763	mg/L	0.008120	0.0406	
* Lithium, Total	11/4/22 15:06	11/10/22 10:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 10:59		1.015	2.04	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 10:59		1	10.7	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 10:59		1.015	5.00	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 10:59		1.015	8.35	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	1.96	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	2.05	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:11		1	10.7	mg/L			
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	4.98	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:11		1.015	8.45	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.000586	mg/L	0.000508	0.001015	J
* Aluminum, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.138	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.000331	mg/L	0.000081	0.000203	
* Barium, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.131	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 18:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.00144	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.00228	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.000125	mg/L	0.000068	0.000203	J
* Manganese, Total	11/4/22 15:06	11/4/22 18:12		1.015	0.0235	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:12		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 18:12		1.015	1.35	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 11/2/22 13:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20118

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	0.0221	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	0.124	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	0.00120	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	0.00230	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	0.0237	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	1.32	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:38	11/4/22 12:38		1	0.389	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	2.00	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	56.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	2.00	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 18:29	11/4/22 18:29		1	2.25	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 11/2/22 13:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20118

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:13	11/8/22 12:13		2	22.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:45	11/8/22 15:45		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:42	11/10/22 10:42		1	2.35	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/2/22 13:07	11/2/22 13:07			88.07	uS/cm			FA
pH	11/2/22 13:07	11/2/22 13:07			4.75	SU			FA
Temperature	11/2/22 13:07	11/2/22 13:07			22.12	C			FA
Turbidity	11/2/22 13:07	11/2/22 13:07			8.68	NTU			FA
Sulfide	11/2/22 13:07	11/2/22 13:07			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC20118

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC20118

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC20118

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 11/2/22 13:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20119

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:03		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	11/4/22 15:06	11/10/22 11:03		1.015	1.96	mg/L	0.070035	0.406		
* Iron, Total	11/4/22 15:06	11/10/22 11:03		1.015	0.102	mg/L	0.008120	0.0406		
* Lithium, Total	11/4/22 15:06	11/10/22 11:03		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:03		1.015	2.05	mg/L	0.021315	0.406		
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:03		1	10.7	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:03		1.015	4.98	mg/L	0.02030	0.25375		
* Sodium, Total	11/4/22 15:06	11/10/22 11:03		1.015	8.38	mg/L	0.03045	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	1.95	mg/L	0.070035	0.406		
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	2.04	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:14		1	10.7	mg/L				
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	4.99	mg/L	0.02030	0.25375		
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:14		1.015	8.39	mg/L	0.03045	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 18:16		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.155	mg/L	0.006090	0.01015		
* Arsenic, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.000363	mg/L	0.000081	0.000203		
* Barium, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.129	mg/L	0.000508	0.001015		
* Beryllium, Total	11/4/22 15:06	11/4/22 18:16		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	11/4/22 15:06	11/4/22 18:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.00149	mg/L	0.000203	0.001015		
* Cobalt, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.00230	mg/L	0.000068	0.000203		
* Lead, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.000139	mg/L	0.000068	0.000203	J	
* Manganese, Total	11/4/22 15:06	11/4/22 18:16		1.015	0.0240	mg/L	0.000152	0.001015		
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:16		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 18:16		1.015	1.34	mg/L	0.169505	0.5075		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 11/2/22 13:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20119

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 18:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	0.0219	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	0.121	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	0.00111	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	0.00229	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	0.0000708	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	0.0231	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	1.32	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:39	11/4/22 12:39		1	0.373	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	2.12	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	55.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	2.12	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 18:47	11/4/22 18:47		1	2.28	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 11/2/22 13:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20119

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:14	11/8/22 12:14		2	18.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:47	11/8/22 15:47		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:43	11/10/22 10:43		1	2.24	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/2/22 13:07	11/2/22 13:07			88.07	uS/cm			FA
pH	11/2/22 13:07	11/2/22 13:07			4.75	SU			FA
Temperature	11/2/22 13:07	11/2/22 13:07			22.12	C			FA
Turbidity	11/2/22 13:07	11/2/22 13:07			8.68	NTU			FA
Sulfide	11/2/22 13:07	11/2/22 13:07			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BC20119

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BC20119

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BC20119

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 11/2/22 14:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20120

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:06		1.015	0.0350	mg/L	0.030000	0.1015	J	
* Calcium, Total	11/4/22 15:06	11/10/22 11:06		1.015	1.31	mg/L	0.070035	0.406		
* Iron, Total	11/4/22 15:06	11/10/22 11:06		1.015	0.0166	mg/L	0.008120	0.0406	J	
* Lithium, Total	11/4/22 15:06	11/10/22 11:06		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:06		1.015	1.45	mg/L	0.021315	0.406		
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:06		1	10.2	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:06		1.015	4.78	mg/L	0.02030	0.25375		
* Sodium, Total	11/4/22 15:06	11/10/22 11:06		1.015	4.00	mg/L	0.03045	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	0.0355	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	1.34	mg/L	0.070035	0.406		
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	1.45	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:17		1	10.3	mg/L				
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	4.79	mg/L	0.02030	0.25375		
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:17		1.015	4.04	mg/L	0.03045	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 18:20		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.0944	mg/L	0.006090	0.01015		
* Arsenic, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.0000852	mg/L	0.000081	0.000203	J	
* Barium, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.0903	mg/L	0.000508	0.001015		
* Beryllium, Total	11/4/22 15:06	11/4/22 18:20		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	11/4/22 15:06	11/4/22 18:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.00276	mg/L	0.000203	0.001015		
* Cobalt, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.00144	mg/L	0.000068	0.000203		
* Lead, Total	11/4/22 15:06	11/4/22 18:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.0140	mg/L	0.000152	0.001015		
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:20		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 18:20		1.015	1.21	mg/L	0.169505	0.5075		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 11/2/22 14:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20120

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:20		1.015	0.00163	mg/L	0.000508	0.001015	
* Thallium, Total	11/4/22 15:06	11/4/22 18:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	0.0277	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	0.0819	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	0.00261	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	0.00142	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	0.0135	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	1.24	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	0.00152	mg/L	0.000508	0.001015	
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:41	11/4/22 12:41		1	0.534	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	1.40	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	37.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	1.40	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 19:04	11/4/22 19:04		1	2.03	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 11/2/22 14:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20120

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 11:55	11/8/22 11:55		1	7.81	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:48	11/8/22 15:48		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:56	11/10/22 10:56		1	4.65	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/2/22 14:07	11/2/22 14:07			53.25	uS/cm			FA
pH	11/2/22 14:07	11/2/22 14:07			4.57	SU			FA
Temperature	11/2/22 14:07	11/2/22 14:07			22.55	C			FA
Turbidity	11/2/22 14:07	11/2/22 14:07			2.35	NTU			FA
Sulfide	11/2/22 14:07	11/2/22 14:07			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 14:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC20120

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 14:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC20120

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 14:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC20120

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 11/2/22 15:17
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20121

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:09		1.015	1.69	mg/L	0.030000	0.1015		
* Calcium, Total	11/4/22 15:06	11/10/22 11:09		1.015	10.9	mg/L	0.070035	0.406		
* Iron, Total	11/4/22 15:06	11/10/22 11:09		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	11/4/22 15:06	11/10/22 11:09		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:09		1.015	9.13	mg/L	0.021315	0.406		
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:09		1	11.0	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:09		1.015	5.15	mg/L	0.02030	0.25375		
* Sodium, Total	11/4/22 15:06	11/10/22 11:09		1.015	4.56	mg/L	0.03045	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	1.72	mg/L	0.030000	0.1015		
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	11.1	mg/L	0.070035	0.406		
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	9.26	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:21		1	10.9	mg/L				
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	5.08	mg/L	0.02030	0.25375		
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:21		1.015	4.54	mg/L	0.03045	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 18:23		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.288	mg/L	0.006090	0.01015		
* Arsenic, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.000548	mg/L	0.000081	0.000203		
* Barium, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.146	mg/L	0.000508	0.001015		
* Beryllium, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.000937	mg/L	0.000406	0.001015	J	
* Cadmium, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.000189	mg/L	0.000068	0.000203	J	
* Chromium, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.00259	mg/L	0.000203	0.001015		
* Cobalt, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.00667	mg/L	0.000068	0.000203		
* Lead, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.000144	mg/L	0.000068	0.000203	J	
* Manganese, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.0758	mg/L	0.000152	0.001015		
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:23		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 18:23		1.015	1.72	mg/L	0.169505	0.5075		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 11/2/22 15:17
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20121

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:23		1.015	0.0247	mg/L	0.000508	0.001015	
* Thallium, Total	11/4/22 15:06	11/4/22 18:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.294	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.000561	mg/L	0.000081	0.000203	
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.135	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.00105	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.000227	mg/L	0.000068	0.000203	
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.00265	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.00705	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.000149	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.0806	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	1.81	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	0.0264	mg/L	0.000508	0.001015	
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:43	11/4/22 12:43		1	1.70	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.1	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	115	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		1	
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 19:21	11/4/22 19:21		1	2.14	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 11/2/22 15:17
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20121

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 11:56	11/8/22 11:56		1	8.44	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:49	11/8/22 15:49		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:57	11/10/22 10:57		3	51.4	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/2/22 15:14	11/2/22 15:14			185.77	uS/cm			FA
pH	11/2/22 15:14	11/2/22 15:14			4.42	SU			FA
Temperature	11/2/22 15:14	11/2/22 15:14			22.73	C			FA
Turbidity	11/2/22 15:14	11/2/22 15:14			1.16	NTU			FA
Sulfide	11/2/22 15:14	11/2/22 15:14			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 15:17
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC20121

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 15:17
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC20121

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 15:17
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC20121

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 11/2/22 16:00
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20122

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:13		1	Not Detected	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	11/4/22 15:06	11/10/22 11:13		1.015	Not Detected	mg/L	0.03045	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.006090	0.01015	U	
* Arsenic, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000081	0.000203	U	
* Barium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	11/4/22 15:06	11/4/22 18:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: CRB								
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:40		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	11/4/22 12:45	11/4/22 12:45		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 11/2/22 16:00
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20122

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 19:36	11/4/22 19:36		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 11:57	11/8/22 11:57		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:50	11/8/22 15:50		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:47	11/10/22 10:47		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 11/2/22 16:00
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC20122

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 11/2/22 16:00

Customer ID:

Delivery Date: 11/3/22 13:16

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC20122

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 11/2/22 16:00

Customer ID:

Delivery Date: 11/3/22 13:16

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC20122

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments:

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 11/2/22 16:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20123

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:16		1.015	0.741	mg/L	0.030000	0.1015	
* Calcium, Total	11/4/22 15:06	11/10/22 11:16		1.015	7.78	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:16		1.015	0.0343	mg/L	0.008120	0.0406	J
* Lithium, Total	11/4/22 15:06	11/10/22 11:16		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:16		1.015	6.40	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:16		1	10.6	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:16		1.015	4.94	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:16		1.015	3.76	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	0.746	mg/L	0.030000	0.1015	
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	7.84	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	6.44	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:24		1	10.5	mg/L			
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	4.92	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:24		1.015	3.80	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 18:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.242	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.000429	mg/L	0.000081	0.000203	
* Barium, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.204	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.000408	mg/L	0.000406	0.001015	J
* Cadmium, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.000178	mg/L	0.000068	0.000203	J
* Chromium, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.00344	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.00684	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.000146	mg/L	0.000068	0.000203	J
* Manganese, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.0792	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:30		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 18:30		1.015	1.37	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 11/2/22 16:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20123

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:30		1.015	0.0156	mg/L	0.000508	0.001015	
* Thallium, Total	11/4/22 15:06	11/4/22 18:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.0865	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.000306	mg/L	0.000081	0.000203	
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.193	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.000147	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.00321	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.00572	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.0691	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	1.40	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	0.0152	mg/L	0.000508	0.001015	
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:47	11/4/22 12:47		1	1.23	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	3.68	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	83.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	3.68	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 19:53	11/4/22 19:53		1	1.98	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 11/2/22 16:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20123

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 11:58	11/8/22 11:58		1	6.58	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:51	11/8/22 15:51		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:48	11/10/22 10:48		1	36.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	11/2/22 16:06	11/2/22 16:06			131.40	uS/cm			FA
pH	11/2/22 16:06	11/2/22 16:06			4.84	SU			FA
Temperature	11/2/22 16:06	11/2/22 16:06			23.03	C			FA
Turbidity	11/2/22 16:06	11/2/22 16:06			1.78	NTU			FA
Sulfide	11/2/22 16:06	11/2/22 16:06			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 16:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC20123

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 16:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC20123

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 16:10
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC20123

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Limit	Prec	Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 11/2/22 13:40
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20124

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	11/4/22 15:06	11/10/22 11:20		1.015	0.0809	mg/L	0.030000	0.1015	J	
* Calcium, Total	11/4/22 15:06	11/10/22 11:20		1.015	1.67	mg/L	0.070035	0.406		
* Iron, Total	11/4/22 15:06	11/10/22 11:20		1.015	0.0138	mg/L	0.008120	0.0406	J	
* Lithium, Total	11/4/22 15:06	11/10/22 11:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	11/4/22 15:06	11/10/22 11:20		1.015	2.49	mg/L	0.021315	0.406		
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:20		1	8.35	mg/L				
Silicon, Total	11/4/22 15:06	11/10/22 11:20		1.015	3.90	mg/L	0.02030	0.25375		
* Sodium, Total	11/4/22 15:06	11/10/22 11:20		1.015	2.02	mg/L	0.03045	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	0.0788	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	1.67	mg/L	0.070035	0.406		
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	2.48	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:30		1	8.30	mg/L				
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	3.88	mg/L	0.02030	0.25375		
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:30		1.015	2.00	mg/L	0.03045	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	11/4/22 15:06	11/4/22 18:34		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.208	mg/L	0.006090	0.01015		
* Arsenic, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.000146	mg/L	0.000081	0.000203	J	
* Barium, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.141	mg/L	0.000508	0.001015		
* Beryllium, Total	11/4/22 15:06	11/4/22 18:34		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	11/4/22 15:06	11/4/22 18:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.000918	mg/L	0.000203	0.001015	J	
* Cobalt, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.00118	mg/L	0.000068	0.000203		
* Lead, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.000233	mg/L	0.000068	0.000203		
* Manganese, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.0410	mg/L	0.000152	0.001015		
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:34		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Potassium, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.934	mg/L	0.169505	0.5075		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 11/2/22 13:40
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20124

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:34		1.015	0.00198	mg/L	0.000508	0.001015	
* Thallium, Total	11/4/22 15:06	11/4/22 18:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.177	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.0000845	mg/L	0.000081	0.000203	J
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.130	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.000831	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.00113	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.000220	mg/L	0.000068	0.000203	
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.0393	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.882	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	0.00185	mg/L	0.000508	0.001015	
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:48	11/4/22 12:48		1	0.312	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	1.36	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	34.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	1.36	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 20:11	11/4/22 20:11		1	4.76	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 11/2/22 13:40
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20124

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 11:59	11/8/22 11:59		1	3.14	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:53	11/8/22 15:53		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:49	11/10/22 10:49		1	12.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	11/2/22 13:37	11/2/22 13:37			104.76	uS/cm			FA
pH	11/2/22 13:37	11/2/22 13:37			3.93	SU			FA
Temperature	11/2/22 13:37	11/2/22 13:37			22.44	C			FA
Turbidity	11/2/22 13:37	11/2/22 13:37			2.95	NTU			FA
Sulfide	11/2/22 13:37	11/2/22 13:37			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:40
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC20124

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:40
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC20124

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 13:40
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC20124

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 11/2/22 14:35
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20125

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	11/4/22 15:06	11/10/22 11:23		1.015	0.0502	mg/L	0.030000	0.1015	J
* Calcium, Total	11/4/22 15:06	11/10/22 11:23		1.015	1.15	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:23		1.015	0.0662	mg/L	0.008120	0.0406	
* Lithium, Total	11/4/22 15:06	11/10/22 11:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:23		1.015	2.57	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:23		1	7.96	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:23		1.015	3.72	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:23		1.015	2.34	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	0.0504	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	1.18	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	2.59	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:33		1	8.05	mg/L			
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	3.76	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:33		1.015	2.36	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	11/4/22 15:06	11/4/22 18:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.308	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.000147	mg/L	0.000081	0.000203	J
* Barium, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.133	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 18:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 18:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.000663	mg/L	0.000203	0.001015	J
* Cobalt, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.00249	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.000122	mg/L	0.000068	0.000203	J
* Manganese, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.0402	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:38		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.804	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 11/2/22 14:35
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20125

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:38		1.015	0.00133	mg/L	0.000508	0.001015	
* Thallium, Total	11/4/22 15:06	11/4/22 18:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.200	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.121	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.000465	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.00241	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.0000937	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.0391	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.801	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	0.00126	mg/L	0.000508	0.001015	
* Thallium, Dissolved	11/4/22 12:58	11/4/22 13:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:49	11/4/22 12:49		1	0.792	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	0.64	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	36.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		1	
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 20:28	11/4/22 20:28		1	3.53	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 11/2/22 14:35
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20125

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:01	11/8/22 12:01		1	3.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:54	11/8/22 15:54		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:50	11/10/22 10:50		1	11.5	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	11/2/22 14:32	11/2/22 14:32			107.59	uS/cm			FA
pH	11/2/22 14:32	11/2/22 14:32			4.39	SU			FA
Temperature	11/2/22 14:32	11/2/22 14:32			21.76	C			FA
Turbidity	11/2/22 14:32	11/2/22 14:32			6.75	NTU			FA
Sulfide	11/2/22 14:32	11/2/22 14:32			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 14:35
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC20125

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 14:35
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC20125

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 14:35
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC20125

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 11/2/22 15:51
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20126

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:26		1.015	0.0343	mg/L	0.030000	0.1015	J
* Calcium, Total	11/4/22 15:06	11/10/22 11:26		1.015	1.04	mg/L	0.070035	0.406	
* Iron, Total	11/4/22 15:06	11/10/22 11:26		1.015	0.0104	mg/L	0.008120	0.0406	J
* Lithium, Total	11/4/22 15:06	11/10/22 11:26		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:26		1.015	1.14	mg/L	0.021315	0.406	
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:26		1	11.7	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:26		1.015	5.45	mg/L	0.02030	0.25375	
* Sodium, Total	11/4/22 15:06	11/10/22 11:26		1.015	4.46	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	0.0339	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	1.06	mg/L	0.070035	0.406	
* Iron, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	1.15	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	11/4/22 12:58	11/10/22 12:37		1	11.6	mg/L			
Silicon, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	5.44	mg/L	0.02030	0.25375	
* Sodium, Dissolved	11/4/22 12:58	11/10/22 12:37		1.015	4.44	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.0231	mg/L	0.006090	0.01015	
* Arsenic, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.0000832	mg/L	0.000081	0.000203	J
* Barium, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.0550	mg/L	0.000508	0.001015	
* Beryllium, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.00209	mg/L	0.000203	0.001015	
* Cobalt, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.000514	mg/L	0.000068	0.000203	
* Lead, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.0202	mg/L	0.000152	0.001015	
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 18:41		1.015	0.881	mg/L	0.169505	0.5075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 11/2/22 15:51
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20126

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 18:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	0.0126	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	0.0511	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	0.00205	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	0.000518	mg/L	0.000068	0.000203	
* Lead, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	0.0203	mg/L	0.000152	0.001015	
* Molybdenum, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	0.873	mg/L	0.169505	0.5075	
* Selenium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	11/4/22 12:58	11/4/22 14:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	11/4/22 12:49	11/4/22 12:49		1	0.257	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: JS							
Alkalinity to pH 4.5	11/16/22 08:10	11/16/22 11:04		1	4.76	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	34.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JS							
Bicarbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	4.76	mg CaCO3/L			
Carbonate Alkalinity, (calc.)	11/16/22 08:10	11/16/22 11:04		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 20:43	11/4/22 20:43		1	3.34	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 11/2/22 15:51
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20126

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	11/8/22 12:02	11/8/22 12:02		1	5.08	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:55	11/8/22 15:55		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:51	11/10/22 10:51		1	5.34	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	11/2/22 15:48	11/2/22 15:48			90.27	uS/cm			FA
pH	11/2/22 15:48	11/2/22 15:48			3.84	SU			FA
Temperature	11/2/22 15:48	11/2/22 15:48			21.41	C			FA
Turbidity	11/2/22 15:48	11/2/22 15:48			2.9	NTU			FA
Sulfide	11/2/22 15:48	11/2/22 15:48			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 15:51
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC20126

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC20126	Aluminum, Dissolved	mg/L	-0.000102	0.010	0.100	0.116	0.113	0.102	0.0850 to 0.115	103	70.0 to 130	2.62	20.0
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20126	Antimony, Dissolved	mg/L	0.000297	0.00100	0.100	0.0918	0.0935	0.0884	0.0850 to 0.115	91.8	70.0 to 130	1.83	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20126	Arsenic, Dissolved	mg/L	0.0000183	0.000176	0.100	0.0976	0.0989	0.100	0.0850 to 0.115	97.6	70.0 to 130	1.32	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20126	Barium, Dissolved	mg/L	0.0000094	0.00100	0.100	0.147	0.150	0.0969	0.0850 to 0.115	95.9	70.0 to 130	2.02	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20126	Beryllium, Dissolved	mg/L	0.0000098	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20126	Boron, Dissolved	mg/L	0.00219	0.0650	1.00	1.03	1.04	0.990	0.850 to 1.15	99.6	70.0 to 130	0.966	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20126	Cadmium, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.0979	0.0994	0.0850 to 0.115	103	70.0 to 130	5.08	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20126	Calcium, Dissolved	mg/L	-0.00667	0.152	5.00	6.20	6.21	5.17	4.25 to 5.75	103	70.0 to 130	0.161	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20126	Chromium, Dissolved	mg/L	-0.0000173	0.000440	0.100	0.106	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20126	Cobalt, Dissolved	mg/L	-0.0000108	0.000147	0.100	0.104	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	1.94	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20126	Iron, Dissolved	mg/L	5.840E-05	0.0176	0.2	0.206	0.205	0.207	0.170 to 0.230	103	70.0 to 130	0.487	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 15:51
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC20126

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC20126	Lead, Dissolved	mg/L	0.0000065	0.000147	0.100	0.109	0.111	0.108	0.0850 to 0.115	109	70.0 to 130	1.82	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20126	Lithium, Dissolved	mg/L	6.630E-05	0.0154	0.200	0.200	0.200	0.195	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20126	Magnesium, Dissolved	mg/L	0.000294	0.0462	5.00	6.23	6.26	5.04	4.25 to 5.75	102	70.0 to 130	0.480	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20126	Manganese, Dissolved	mg/L	0.0000070	0.00033	0.100	0.124	0.122	0.103	0.0850 to 0.115	104	70.0 to 130	1.63	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20126	Molybdenum, Dissolved	mg/L	0.0000098	0.0002	0.100	0.102	0.101	0.0988	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20126	Potassium, Dissolved	mg/L	0.00370	0.367	10.0	10.5	10.6	9.91	8.50 to 11.5	96.3	70.0 to 130	0.948	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20126	Selenium, Dissolved	mg/L	0.0000880	0.00100	0.100	0.103	0.100	0.103	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20126	Silicon, Dissolved	mg/L	0.000606	0.0440	1.00	6.45	6.46	1.02	0.850 to 1.15	101	70.0 to 130	0.155	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20126	Sodium, Dissolved	mg/L	0.000505	0.0660	5.00	9.60	9.60	4.90	4.25 to 5.75	103	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0
BC20126	Thallium, Dissolved	mg/L	-0.0000338	0.000147	0.100	0.103	0.106	0.104	0.0850 to 0.115	103	70.0 to 130	2.87	20.0
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 11/2/22 15:51
Customer ID:
Delivery Date: 11/3/22 13:16

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC20126

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20126	Alkalinity to pH 4.5	mg CaCO3/L					5.04	50.0	45.0 to 55.0			5.71	10.0
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 11/2/22 16:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20127

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	11/4/22 15:06	11/10/22 11:30		1	Not Detected	mg/L			
Silicon, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	11/4/22 15:06	11/10/22 11:30		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Molybdenum, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	11/4/22 15:06	11/4/22 18:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	11/10/22 14:22	11/10/22 18:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2			Analyst: SC						
* Nitrogen, Nitrate/Nitrite	11/4/22 12:50	11/4/22 12:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	11/8/22 11:45	11/9/22 13:47		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 11/2/22 16:10
Customer ID:
Submittal Date: 11/3/22 13:16

Laboratory ID Number: BC20127

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	11/4/22 20:58	11/4/22 20:58		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: CES							
* Chloride	11/8/22 12:03	11/8/22 12:03		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	11/8/22 15:56	11/8/22 15:56		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	11/10/22 10:53	11/10/22 10:53		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARGE B

Sample Date: 11/2/22 16:10

Customer ID:

Delivery Date: 11/3/22 13:16

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC20127

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC20127	Aluminum, Total	mg/L	0.000681	0.010	0.100	0.106	0.106	0.101	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC20127	Antimony, Total	mg/L	0.000719	0.00100	0.100	0.0988	0.0994	0.0975	0.0850 to 0.115	98.8	70.0 to 130	0.605	20.0
BC20127	Arsenic, Total	mg/L	0.0000465	0.000176	0.100	0.0981	0.103	0.0982	0.0850 to 0.115	98.1	70.0 to 130	4.87	20.0
BC20127	Barium, Total	mg/L	0.0000228	0.00100	0.100	0.109	0.108	0.107	0.0850 to 0.115	109	70.0 to 130	0.922	20.0
BC20127	Beryllium, Total	mg/L	0.0000102	0.000880	0.100	0.0934	0.0932	0.0917	0.0850 to 0.115	93.4	70.0 to 130	0.214	20.0
BC20127	Boron, Total	mg/L	0.00233	0.0650	1.00	0.991	0.990	1.00	0.850 to 1.15	99.1	70.0 to 130	0.101	20.0
BC20127	Cadmium, Total	mg/L	0.0000052	0.000147	0.100	0.103	0.102	0.0961	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC20127	Calcium, Total	mg/L	-0.0102	0.152	5.00	5.11	5.11	5.16	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BC20127	Chloride	mg/L	0.0503	1.00	10.0	10.2	10.2	9.55	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC20127	Chromium, Total	mg/L	-0.0000486	0.000440	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BC20127	Cobalt, Total	mg/L	-0.0000103	0.000147	0.100	0.107	0.105	0.102	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BC20127	Fluoride	mg/L	0.0451	0.125	2.50	2.43	2.56	2.52	2.25 to 2.75	97.2	80.0 to 120	5.21	20.0
BC20127	Iron, Total	mg/L	0.000378	0.0176	0.2	0.204	0.205	0.205	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BC20127	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.111	0.104	0.0850 to 0.115	105	70.0 to 130	5.56	20.0
BC20127	Lithium, Total	mg/L	3.910E-05	0.0154	0.200	0.195	0.194	0.195	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BC20127	Magnesium, Total	mg/L	-0.000764	0.0462	5.00	5.02	5.02	5.07	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BC20127	Manganese, Total	mg/L	0.0000351	0.00033	0.100	0.106	0.105	0.103	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC20126	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00387	0.00393	0.00392	0.00340 to 0.00460	96.8	70.0 to 130	1.54	20.0
BC20127	Molybdenum, Total	mg/L	0.0000020	0.0002	0.100	0.104	0.105	0.0997	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC20127	Potassium, Total	mg/L	0.000467	0.367	10.0	10.1	9.99	9.77	8.50 to 11.5	101	70.0 to 130	1.10	20.0
BC20127	Selenium, Total	mg/L	0.0000507	0.00100	0.100	0.102	0.103	0.0981	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC20127	Silicon, Total	mg/L	-0.000118	0.0440	1.00	1.02	1.02	1.03	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC20127	Sodium, Total	mg/L	-0.000822	0.0660	5.00	4.90	4.88	4.95	4.25 to 5.75	98.0	70.0 to 130	0.409	20.0
BC20127	Sulfate	mg/L	0.301	2.0	20.0	19.9	20.3	19.8	18.0 to 22.0	99.5	80.0 to 120	1.99	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGE8

Sample Date: 11/2/22 16:10

Customer ID:

Delivery Date: 11/3/22 13:16

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC20127

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BC20127	Thallium, Total	mg/L	-0.0000137	0.000147	0.100	0.105	0.115	0.107	0.0850 to 0.115	105	70.0 to 130	9.09	20.0
BC20127	Total Organic Carbon	mg/L	0.230	1.00	10.0	9.53	9.68	9.53		95.3	80.0 to 120	1.56	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGE8

Sample Date: 11/2/22 16:10

Customer ID:

Delivery Date: 11/3/22 13:16

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC20127

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC20127	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.02	0.044	2.02	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC20126	Solids, Dissolved	mg/L	1.00	25.0			34.7	53.0	40.0 to 60.0			2.04	10.0

Comments:

Definitions

Project Number: WMWBARG_1392

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Barry Gypsum

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrates/Nitrites, TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	11/02/2022	13:10	6	Groundwater		BC20118
MW-7 Dup	11/02/2022	13:10	6	Sample Duplicate		BC20119
PZ-11	11/02/2022	14:10	6	Groundwater		BC20120
MW-5	11/02/2022	15:17	6	Groundwater		BC20121
FB-1	11/02/2022	16:00	5	Field Blank		BC20122
MW-6	11/02/2022	16:10	6	Groundwater		BC20123

Relinquished By	Received By	Date/Time
<i>HAB</i>	<i>Buckelton</i>	11/03/2022 11:01

SmarTroll ID	7586-41443-5-2	All pH requirements have been met <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	
Sample Event	1392	
Cooler Temp	1.4 °C	
Thermometer ID	7044-38281-2-1	
pH Strip ID	10429-60252-10-8	

Bottles/Pre-Preserved Bottles are provided by the GTL
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: Dallas Gentry		Requested By
		Location	Barry Gypsum

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrate/Nitrite; TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	11/02/2022	13:40	6	Groundwater		BC20124
MW-10	11/02/2022	14:35	6	Groundwater		BC20125
MW-8	11/02/2022	15:51	6	Groundwater		BC20126
EB-1	11/02/2022	16:10	5	Equipment Blank		BC20127

Relinquished By	Received By	Date/Time
<i>M. Gentry</i>	<i>Brian Cotton</i>	11/03/2022 11:14

SmarTroll ID	7586-41444-5-3	All pH requirements have been met <input checked="" type="checkbox"/>
Turbidity ID	9901-57263-1-1	
Sample Event	1392	
Cooler Temp	1.9 °C	
Thermometer ID	7044-38281-2-1	
pH Strip ID	10429-60252-10-8	

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody
Groundwater
 APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer	
	Collector: TJ Daugherty		Requested By	Greg Dyer
				Location

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	11/02/2022	13:10	1	Groundwater		BC20128
MW-7 Dup	11/02/2022	13:10	1	Sample Duplicate		BC20129
PZ-11	11/02/2022	14:10	1	Groundwater		BC20130
MW-5	11/02/2022	15:17	1	Groundwater		BC20131
FB-1	11/02/2022	16:00	1	Field Blank		BC20132
MW-6	11/02/2022	16:10	1	Groundwater		BC20133

Relinquished By	Received By	Date/Time
		11/03/2022 11:01

SmarTroll ID	7586-41443-5-2	All pH requirements have been met <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp
Sample Event	1392	Thermometer ID
		pH Strip ID
		10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

 Field Complete
 Lab Complete

 Outside Lab

 Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Barry Gypsum

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments	Radium MS/MSD collected at MW-9
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Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	11/02/2022	13:40	3	Groundwater		BC20134
MW-10	11/02/2022	14:35	1	Groundwater		BC20135
MW-8	11/02/2022	15:51	1	Groundwater		BC20136
EB-1	11/02/2022	16:10	1	Equipment Blank		BC20137

Relinquished By	Received By	Date/Time
<i>M. Dyer</i>	<i>Brian Cotton</i>	11/03/2022 11:14

SmarTroll ID	7586-41444-5-3	All pH requirements have been met <input checked="" type="checkbox"/>	
Turbidity ID	9901-57263-1-1		
Sample Event	1392		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks

December 13, 2022

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARG_1392
Pace Project No.: 30537401

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on November 10, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARG_1392
Pace Project No.: 30537401

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARG_1392
Pace Project No.: 30537401

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30537401001	BC20128 MW-7	Water	11/02/22 13:10	11/10/22 10:40
30537401002	BC20129 MW-7 Dup	Water	11/02/22 13:10	11/10/22 10:40
30537401003	BC20130 PZ-11	Water	11/02/22 14:10	11/10/22 10:40
30537401004	BC20131 MW-5	Water	11/02/22 15:17	11/10/22 10:40
30537401005	BC20132 FB-1	Water	11/02/22 16:00	11/10/22 10:40
30537401006	BC20133 MW-6	Water	11/02/22 16:10	11/10/22 10:40
30537401007	BC20134 MW-9	Water	11/02/22 13:40	11/10/22 10:40
30537401008	BC20134 MW-9 MS	Water	11/02/22 13:40	11/10/22 10:40
30537401009	BC20134 MW-9 MSD	Water	11/02/22 13:40	11/10/22 10:40
30537401010	BC20135 MW-10	Water	11/02/22 14:35	11/10/22 10:40
30537401011	BC20136 MW-8	Water	11/02/22 15:51	11/10/22 10:40
30537401012	BC20137 EB-1	Water	11/02/22 16:10	11/10/22 10:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARG_1392
Pace Project No.: 30537401

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30537401001	BC20128 MW-7	EPA 9315	RMS	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401002	BC20129 MW-7 Dup	EPA 9315	RMS	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401003	BC20130 PZ-11	EPA 9315	RMS	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401004	BC20131 MW-5	EPA 9315	RMS	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401005	BC20132 FB-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401006	BC20133 MW-6	EPA 9315	RMS	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401007	BC20134 MW-9	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401008	BC20134 MW-9 MS	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30537401009	BC20134 MW-9 MSD	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30537401010	BC20135 MW-10	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401011	BC20136 MW-8	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30537401012	BC20137 EB-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1392

Pace Project No.: 30537401

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: December 13, 2022

General Information:

12 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1392

Pace Project No.: 30537401

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: December 13, 2022

General Information:

12 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1392

Pace Project No.: 30537401

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: December 13, 2022

General Information:

10 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20128 MW-7 **Lab ID: 30537401001** Collected: 11/02/22 13:10 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.461 ± 0.219 (0.270) C:100% T:NA	pCi/L	12/09/22 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.631U ± 0.365 (0.659) C:81% T:87%	pCi/L	12/12/22 11:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.09 ± 0.584 (0.929)	pCi/L	12/12/22 16:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20129 MW-7 Dup **Lab ID: 30537401002** Collected: 11/02/22 13:10 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.488 ± 0.249 (0.356) C:102% T:NA	pCi/L	12/09/22 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.309U ± 0.323 (0.668) C:79% T:84%	pCi/L	12/12/22 11:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.797U ± 0.572 (1.02)	pCi/L	12/12/22 16:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20130 PZ-11 **Lab ID: 30537401003** Collected: 11/02/22 14:10 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.400 ± 0.206 (0.264) C:101% T:NA	pCi/L	12/09/22 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.225U ± 0.280 (0.593) C:83% T:92%	pCi/L	12/12/22 11:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.625U ± 0.486 (0.857)	pCi/L	12/12/22 16:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20131 MW-5 **Lab ID: 30537401004** Collected: 11/02/22 15:17 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.677 ± 0.258 (0.256) C:98% T:NA	pCi/L	12/09/22 12:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.562U ± 0.340 (0.617) C:79% T:83%	pCi/L	12/12/22 11:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.24 ± 0.598 (0.873)	pCi/L	12/12/22 16:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BC20132 FB-1 Lab ID: 30537401005 Collected: 11/02/22 16:00 Received: 11/10/22 10:40 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0136U ± 0.0945 (0.254) C:99% T:NA	pCi/L	12/09/22 12:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.548U ± 0.333 (0.612) C:77% T:93%	pCi/L	12/12/22 11:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.562U ± 0.428 (0.866)	pCi/L	12/12/22 16:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BC20133 MW-6 Lab ID: 30537401006 Collected: 11/02/22 16:10 Received: 11/10/22 10:40 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.921 ± 0.316 (0.290) C:93% T:NA	pCi/L	12/09/22 13:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.783 ± 0.384 (0.661) C:81% T:90%	pCi/L	12/12/22 11:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.70 ± 0.700 (0.951)	pCi/L	12/12/22 16:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20134 MW-9 **Lab ID: 30537401007** Collected: 11/02/22 13:40 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.642 ± 0.248 (0.231) C:100% T:NA	pCi/L	12/09/22 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.29 ± 0.432 (0.535) C:82% T:85%	pCi/L	12/12/22 13:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.93 ± 0.680 (0.766)	pCi/L	12/12/22 17:05	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20134 MW-9 MS **Lab ID: 30537401008** Collected: 11/02/22 13:40 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	110.02 %REC ± NA (NA) C:NA T:NA	pCi/L	12/09/22 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	107.65 %REC ± NA (NA) C:NA T:NA	pCi/L	12/12/22 13:04	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20134 MW-9 MSD **Lab ID: 30537401009** Collected: 11/02/22 13:40 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	108.85 %REC 1.07RPD ± NA (NA) C:NA T:NA	pCi/L	12/09/22 13:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	89.94 %REC 17.93 RPD ± NA (NA) C:NA T:NA	pCi/L	12/12/22 13:04	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20135 MW-10 **Lab ID: 30537401010** Collected: 11/02/22 14:35 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.733 ± 0.267 (0.267) C:98% T:NA	pCi/L	12/09/22 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.604U ± 0.375 (0.697) C:82% T:84%	pCi/L	12/12/22 13:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.34 ± 0.642 (0.964)	pCi/L	12/12/22 17:05	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20136 MW-8 **Lab ID: 30537401011** Collected: 11/02/22 15:51 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.263U ± 0.176 (0.283) C:96% T:NA	pCi/L	12/09/22 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.792 ± 0.400 (0.709) C:82% T:90%	pCi/L	12/12/22 13:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.06 ± 0.576 (0.992)	pCi/L	12/12/22 17:05	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

Sample: BC20137 EB-1 **Lab ID: 30537401012** Collected: 11/02/22 16:10 Received: 11/10/22 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.124U ± 0.146 (0.288) C:95% T:NA	pCi/L	12/09/22 13:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.438U ± 0.371 (0.754) C:84% T:90%	pCi/L	12/12/22 13:04	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.562U ± 0.517 (1.04)	pCi/L	12/12/22 17:05	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

QC Batch: 546311

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30537401001, 30537401002, 30537401003, 30537401004, 30537401005, 30537401006

METHOD BLANK: 2653312

Matrix: Water

Associated Lab Samples: 30537401001, 30537401002, 30537401003, 30537401004, 30537401005, 30537401006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0692 ± 0.0747 (0.145) C:99% T:NA	pCi/L	12/09/22 10:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1392
Pace Project No.: 30537401

QC Batch: 546315 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30537401007, 30537401008, 30537401009, 30537401010, 30537401011, 30537401012

METHOD BLANK: 2653319 Matrix: Water
Associated Lab Samples: 30537401007, 30537401008, 30537401009, 30537401010, 30537401011, 30537401012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.264 ± 0.281 (0.583) C:83% T:92%	pCi/L	12/12/22 13:03	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

QC Batch: 546313

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30537401007, 30537401008, 30537401009, 30537401010, 30537401011, 30537401012

METHOD BLANK: 2653314

Matrix: Water

Associated Lab Samples: 30537401007, 30537401008, 30537401009, 30537401010, 30537401011, 30537401012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0637 ± 0.0667 (0.122) C:99% T:NA	pCi/L	12/09/22 13:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1392

Pace Project No.: 30537401

QC Batch: 546312

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30537401001, 30537401002, 30537401003, 30537401004, 30537401005, 30537401006

METHOD BLANK: 2653313

Matrix: Water

Associated Lab Samples: 30537401001, 30537401002, 30537401003, 30537401004, 30537401005, 30537401006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0727 ± 0.266 (0.604) C:80% T:92%	pCi/L	12/12/22 11:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: WMWBARG_1392

Pace Project No.: 30537401

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARG_1392
Pace Project No.: 30537401

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30537401001	BC20128 MW-7	EPA 9315	546311		
30537401002	BC20129 MW-7 Dup	EPA 9315	546311		
30537401003	BC20130 PZ-11	EPA 9315	546311		
30537401004	BC20131 MW-5	EPA 9315	546311		
30537401005	BC20132 FB-1	EPA 9315	546311		
30537401006	BC20133 MW-6	EPA 9315	546311		
30537401007	BC20134 MW-9	EPA 9315	546313		
30537401008	BC20134 MW-9 MS	EPA 9315	546313		
30537401009	BC20134 MW-9 MSD	EPA 9315	546313		
30537401010	BC20135 MW-10	EPA 9315	546313		
30537401011	BC20136 MW-8	EPA 9315	546313		
30537401012	BC20137 EB-1	EPA 9315	546313		
30537401001	BC20128 MW-7	EPA 9320	546312		
30537401002	BC20129 MW-7 Dup	EPA 9320	546312		
30537401003	BC20130 PZ-11	EPA 9320	546312		
30537401004	BC20131 MW-5	EPA 9320	546312		
30537401005	BC20132 FB-1	EPA 9320	546312		
30537401006	BC20133 MW-6	EPA 9320	546312		
30537401007	BC20134 MW-9	EPA 9320	546315		
30537401008	BC20134 MW-9 MS	EPA 9320	546315		
30537401009	BC20134 MW-9 MSD	EPA 9320	546315		
30537401010	BC20135 MW-10	EPA 9320	546315		
30537401011	BC20136 MW-8	EPA 9320	546315		
30537401012	BC20137 EB-1	EPA 9320	546315		
30537401001	BC20128 MW-7	Total Radium Calculation	553193		
30537401002	BC20129 MW-7 Dup	Total Radium Calculation	553193		
30537401003	BC20130 PZ-11	Total Radium Calculation	553193		
30537401004	BC20131 MW-5	Total Radium Calculation	553193		
30537401005	BC20132 FB-1	Total Radium Calculation	553193		
30537401006	BC20133 MW-6	Total Radium Calculation	553193		
30537401007	BC20134 MW-9	Total Radium Calculation	553207		
30537401010	BC20135 MW-10	Total Radium Calculation	553207		
30537401011	BC20136 MW-8	Total Radium Calculation	553207		
30537401012	BC20137 EB-1	Total Radium Calculation	553207		

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CHAIN-OF-CUSTODY / Analytical Request Document


The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Alabama Power Company	Report To:	Brooke Caton	Attention:	Brooke Caton
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Renee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
Email To:	tbwill@southernco.com	Purchase Order #:	APC10755638	Address:	744 Highway 87 GSC Bldg #8 CCR
Phone:	205-664-6101	Project Name:	Plant Barry Gypsum	Pace Quote:	Skylar Richmond
Requested Due Date:	28 days	Project Number:	WMWBARG_1392	Pace Project Manager:	Skylar Richmond
				Pace Profile #:	16788
				State / Location:	AL
				Regulatory Agency:	AL

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analyses Test Y/N	Requested Analysis Filtered (Y/N)	Total Radium Sum	Residual Chlorine (Y/N)
								DATE	TIME						
1	BC20128 MW-7	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore			GW	G	11/2/2022	13:10	1		X	X	X	001
2	BC20129 MW-7 Dup	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore	X		GW	G	11/2/2022	13:10	1		X	X	X	002
3	BC20130 PZ-11	APCO-BY-GSA-PZ-11	APCO_Barry_GypsumStore			GW	G	11/2/2022	14:10	1		X	X	X	003
4	BC20131 MW-5	APCO-BY-GSA-MW-5	APCO_Barry_GypsumStore			GW	G	11/2/2022	15:17	1		X	X	X	004
5	BC20132 FB-1	APCO-BY-GSA-FB-01	APCO_Barry_GypsumStore			GW	G	11/2/2022	16:00	1		X	X	X	005
6	BC20133 MW-6	APCO-BY-GSA-MW-6	APCO_Barry_GypsumStore			GW	G	11/2/2022	16:10	1		X	X	X	006
7	BC20134 MW-9	APCO-BY-GSA-MW-9	APCO_Barry_GypsumStore	X		GW	G	11/2/2022	13:40	3		X	X	X	007,008,009
8	BC20135 MW-10	APCO-BY-GSA-MW-10	APCO_Barry_GypsumStore			GW	G	11/2/2022	14:35	1		X	X	X	010
9	BC20136 MW-8	APCO-BY-GSA-MW-8	APCO_Barry_GypsumStore			GW	G	11/2/2022	15:51	1		X	X	X	011
10	BC20137 EB-1	APCO-BY-GSA-EB-01	APCO_Barry_GypsumStore			GW	G	11/2/2022	16:10	1		X	X	X	012
11															
12															


ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton/ APC GTL	11/4/2022	13:07	<i>[Signature]</i>	11/02/2022	10:40	

WO# : 30537401



30537401

SAMPLER NAME AND SIGNATURE: _____
 PRINT Name of SAMPLER: TJ Daugherty
 SIGNATURE of SAMPLER: _____
 DATE Signed: _____

	DC#_Title: ENV-FRM-GBUR-0088 v02_Sample Condition Upon Receipt- Pittsburgh
	Effective Date: 10/03/2022

Client Name: Alabama

Project #:

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 5870 1898 2333

Examined By	<u>PS</u>
Labeled By	<u>PS</u>
Temped By	<u>—</u>

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: — Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C
Temp should be above freezing to 6°C

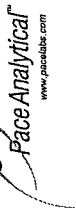
Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				<u>1000421</u>	<u>—</u>
Chain of Custody Present	/			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	/			2.	
Chain of Custody Relinquished	/			3.	
Sampler Name & Signature on COC:	/			4.	
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	/			5.	
Samples Arrived within Hold Time:	/			6.	
Short Hold Time Analysis (<72hr remaining):		/		7.	
Rush Turn Around Time Requested:		/		8.	
Sufficient Volume:	/			9.	
Correct Containers Used: -Pace Containers Used	/			10.	
Containers Intact:	/			11.	
Orthophosphate field filtered:			/	12.	
Hex Cr Aqueous samples field filtered:			/	13.	
Organic Samples checked for dechlorination			/	14.	
Filtered volume received for dissolved tests:			/	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	/			16.	
All containers meet method preservation requirements:	/			Initial when completed <u>PS</u>	Date/Time of Preservation
Headspace in VOA Vials (>6mm):			/	Lot# of added Preservative	
Trip Blank Present:		/		17.	
Trip Blank Custody Seals Present		/		18.	
Rad Samples Screened <0.5 mrem/hr.	/			Initial when completed <u>PS</u>	Date: <u>11/10/22</u> Survey Meter SN: <u>1563</u>
Comments:					

WO#: 30537401
 PM: SCR Due Date: 12/12/22
 CLIENT: ALABAMA PWR

PH < 2

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: ZPC
Date: 11/16/2022
Worklist: 69949
Matrix: WT

Method Blank Assessment	
MB Sample ID	2653313
MB concentration:	0.073
MB 2 Sigma CSU:	0.266
MB MDC:	0.604
MB Numerical Performance Indicator:	0.53
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD69949	LCSD69949
Count Date:	12/12/2022
Spike I.D.:	22-029
Decay Corrected Spike Concentration (pCi/mL):	19.426
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.815
Target Conc. (pCi/L, g, F):	4.767
Uncertainty (Calculated):	0.343
Result (pCi/L, g, F):	3.757
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.870
Numerical Performance Indicator:	-2.11
Percent Recovery:	78.82%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		10/31/2022	
Sample I.D.:		30537388032	
Sample MS I.D.:		30537388033	
Sample MSD I.D.:		30537388034	
Spike I.D.:		22-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		19.696	
Spike Volume Used in MS (mL):		0.40	
Spike Volume Used in MSD (mL):		0.40	
MS Aliquot (L, g, F):		0.804	
MS Target Conc. (pCi/L, g, F):		9.795	
MSD Aliquot (L, g, F):		0.805	
MSD Target Conc. (pCi/L, g, F):		9.789	
MS Spike Uncertainty (calculated):		0.705	
MSD Spike Uncertainty (calculated):		0.705	
Sample Result:		0.757	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.363	
Sample Matrix Spike Result:		7.873	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.571	
Sample Matrix Spike Duplicate Result:		7.725	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.539	
MS Numerical Performance Indicator:		-2.983	
MSD Numerical Performance Indicator:		-3.193	
MS Percent Recovery:		72.65%	
MSD Percent Recovery:		71.19%	
MS Status vs Numerical Indicator:		Warning	
MSD Status vs Numerical Indicator:		Fail****	
MS Status vs Recovery:		Pass	
MSD Status vs Recovery:		Pass	
MS/MSD Upper % Recovery Limits:		135%	
MS/MSD Lower % Recovery Limits:		60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30537388032
Sample MS I.D.:	30537388033
Sample MSD I.D.:	30537388034
Sample Matrix Spike Result:	7.873
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.571
Sample Matrix Spike Duplicate Result:	7.725
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.539
Duplicate Numerical Performance Indicator:	0.132
Duplicate Numerical Performance Indicator RPD:	2.03%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

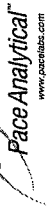
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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Quality Control Sample Performance Assessment



Analyst: Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMS
Date: 11/17/2022
Worklist: 69948
Matrix: WT

Method Blank Assessment	
MB Sample ID	2653312
MB concentration:	0.069
MB 2 Sigma CSU:	0.075
MB MDC:	0.145
MB Numerical Performance Indicator:	1.81
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCS D (Y or N)?	Y
Count Date:	12/9/2022	LCS D69948	12/9/2022
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.021		24.021
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.509		0.505
Target Conc. (pCi/L, g, F):	4.722		4.761
Uncertainty (Calculated):	0.057		0.057
Result (pCi/L, g, F):	4.432		4.419
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.773		0.774
Numerical Performance Indicator:	-0.73		-0.86
Percent Recovery:	93.86%		92.82%
Status vs Numerical Indicator:	Pass		Pass
Status vs Recovery:	N/A		N/A
Upper % Recovery Limits:	125%		125%
Lower % Recovery Limits:	75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS69948
Duplicate Sample I.D.:	LCS D69948
Duplicate Result (pCi/L, g, F):	4.432
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.773
Sample Duplicate Result (pCi/L, g, F):	4.419
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.774
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.022
Duplicate LCS/LCSD Percent Recoveries:	1.11%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	10/31/2022		
Sample I.D.:	30537388032		
Sample MS I.D.:	30537388033		
Sample MSD I.D.:	30537388034		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.022		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.265		
MS Target Conc. (pCi/L, g, F):	18.129		
MSD Aliquot (L, g, F):	0.304		
MSD Target Conc. (pCi/L, g, F):	15.816		
MS Spike Uncertainty (calculated):	0.218		
MSD Spike Uncertainty (calculated):	0.190		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.168		
Sample Matrix Spike Result:	0.147		
Matrix Spike Duplicate Result:	19.573		
MS Numerical Performance Indicator:	3.090		
MSD Numerical Performance Indicator:	17.579		
MS Percent Recovery:	2.790		
MSD Percent Recovery:	0.806		
MS Status vs Numerical Indicator:	107.04%		
MSD Status vs Numerical Indicator:	110.08%		
MS Status vs Recovery:	Pass		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	N/A		
MSD Status vs Numerical Indicator:	N/A		
MS/MSD Upper % Recovery Limits:	125%		
MS/MSD Lower % Recovery Limits:	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30537388032
Sample MS I.D.:	30537388033
Sample MSD I.D.:	30537388034
Sample Matrix Spike Result:	19.573
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	3.090
Sample Matrix Spike Duplicate Result:	17.579
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	2.790
Duplicate Numerical Performance Indicator:	0.939
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	2.80%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

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Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 11/16/2022
Worklist: 69951
Matrix: WT

Method Blank Assessment	
MB Sample ID	265319
MB concentration:	0.264
MB 2 Sigma CSU:	0.281
MB MDC:	0.583
MB Numerical Performance Indicator:	1.84
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	N
Count Date:	12/12/2022	LCSD69951	LCSD69951
Spike I.D.:	22-029		
Decay Corrected Spike Concentration (pCi/mL):	19.426		
Volume Used (mL):	0.20		
Aliquot Volume (L, g, F):	0.806		
Target Conc. (pCi/L, g, F):	4.818		
Uncertainty (Calculated):	0.347		
Result (pCi/L, g, F):	5.546		
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.330		
Numerical Performance Indicator:	1.04		
Percent Recovery:	115.11%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:		
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?		
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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12/13/22

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	11/12/2022		
Sample MS I.D.:	30537401007		
Sample MS I.D.:	30537401008		
Sample MS I.D.:	30537401009		
Spike I.D.:	22-029		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19.684		
Spike Volume Used in MS (mL):	0.40		
Spike Volume Used in MSD (mL):	0.40		
MS Aliquot (L, g, F):	0.805		
MS Target Conc. (pCi/L, g, F):	9.784		
MSD Aliquot (L, g, F):	0.809		
MSD Target Conc. (pCi/L, g, F):	9.738		
MS Spike Uncertainty (calculated):	0.704		
MSD Spike Uncertainty (calculated):	0.701		
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.285		
Sample Matrix Spike Result:	0.432		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	11.817		
Sample Matrix Spike Duplicate Result:	2.305		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	10.043		
MS Numerical Performance Indicator:	1.994		
MSD Numerical Performance Indicator:	0.599		
MS Percent Recovery:	-0.890		
MSD Percent Recovery:	107.65%		
MS Status vs Numerical Indicator:	89.94%		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	135%		
MS/MSD Lower % Recovery Limits:	60%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		MS/MSD Upper % Recovery Limits:	MS/MSD Lower % Recovery Limits:
Sample I.D.:	30537403003		
Sample MS I.D.:	30537403004		
Sample MS I.D.:	30537403005		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	11.817		
Sample Matrix Spike Duplicate Result:	2.305		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	10.043		
Duplicate Numerical Performance Indicator:	1.994		
Duplicate Numerical Performance Indicator:	1.141		
MS/MSD Duplicate RPD:	17.93%		
MS/MSD Duplicate Status vs Numerical Indicator:	Pass		
MS/MSD Duplicate Status vs RPD:	Pass		
% RPD Limit:	36%		

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: RMS
Date: 11/17/2022
Worklist: 69950
Matrix: WT

Method Blank Assessment	
MB Sample ID	2653314
MB concentration:	0.064
M/B 2 Sigma CSU:	0.067
MB MDC:	0.122
MB Numerical Performance Indicator:	1.87
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS	Y
Count Date:	12/9/2022	LCS D69950
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.021	24.021
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.512	4.776
Target Conc. (pCi/L, g, F):	4.686	0.057
Uncertainty (Calculated):	0.056	4.774
Result (pCi/L, g, F):	4.451	0.823
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.773	0.00
Numerical Performance Indicator:	-0.62	99.96%
Status vs Numerical Indicator:	Pass	Pass
Percent Recovery:	94.79%	N/A
Status vs Recovery:	Pass	125%
Upper % Recovery Limits:	125%	75%
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	
Sample I.D.:	LCS D69950
Duplicate Sample I.D.:	LCS D69950
Sample Result (pCi/L, g, F):	4.451
Sample Duplicate Result (pCi/L, g, F):	0.773
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.774
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.823
NO	
Are sample and/or duplicate results below RL?	-0.560
Duplicate Numerical Performance Indicator:	5.31%
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	Pass
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	25%
% RPD Limit:	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	11/2/2022	11/1/2022
Sample I.D.:	30537401007	30537403003
Sample MS I.D.:	30537401008	30537403004
Sample MSD I.D.:	30537401009	30537403005
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.022	24.022
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):	0.20	0.20
MS Aliquot (L, g, F):	0.299	0.290
MS Target Conc. (pCi/L, g, F):	16.044	16.559
MSD Aliquot (L, g, F):	0.295	0.306
MSD Target Conc. (pCi/L, g, F):	16.267	15.686
MS Spike Uncertainty (calculated):	0.193	0.199
MSD Spike Uncertainty (calculated):	0.195	0.188
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.642	0.304
Sample Matrix Spike Result:	0.248	0.193
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	18.293	18.130
Sample Matrix Spike Duplicate Result:	2.897	2.865
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	18.349	15.785
MS Numerical Performance Indicator:	2.899	2.507
MSD Numerical Performance Indicator:	1.081	0.863
MS Percent Recovery:	0.968	-0.159
MSD Percent Recovery:	110.02%	107.65%
MS Status vs Numerical Indicator:	Pass	Pass
MSD Status vs Numerical Indicator:	Pass	Pass
MS Status vs Recovery:	N/A	N/A
MSD Status vs Recovery:	N/A	N/A
MS/MSD Upper % Recovery Limits:	125%	125%
MS/MSD Lower % Recovery Limits:	75%	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30537401007
Sample MS I.D.:	30537403004
Sample MSD I.D.:	30537401009
Sample Matrix Spike Result:	18.293
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.897
Sample Matrix Spike Duplicate Result:	18.349
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	2.899
Duplicate Numerical Performance Indicator:	-0.027
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	25%
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-1	COND	Conductivity	11/1/2022 16:47	53.93	uS/cm
MW-1	DO	DO	11/1/2022 16:47	0.17	mg/L
MW-1	DTW	Depth to Water Detail	11/1/2022 16:47	15.61	ft
MW-1	ORP	Oxidation Reduction Potention	11/1/2022 16:47	235.76	mv
MW-1	PH	pH	11/1/2022 16:47	4.55	SU
MW-1	TEMP	Temperature	11/1/2022 16:47	20.83	C
MW-1	TURB	Turbidity	11/1/2022 16:47	4.22	NTU
MW-1	COND	Conductivity	11/1/2022 16:52	53.33	uS/cm
MW-1	DO	DO	11/1/2022 16:52	0.14	mg/L
MW-1	DTW	Depth to Water Detail	11/1/2022 16:52	15.61	ft
MW-1	ORP	Oxidation Reduction Potention	11/1/2022 16:52	240.56	mv
MW-1	PH	pH	11/1/2022 16:52	4.54	SU
MW-1	TEMP	Temperature	11/1/2022 16:52	20.86	C
MW-1	TURB	Turbidity	11/1/2022 16:52	5.36	NTU
MW-1	COND	Conductivity	11/1/2022 16:57	53.21	uS/cm
MW-1	DO	DO	11/1/2022 16:57	0.13	mg/L
MW-1	DTW	Depth to Water Detail	11/1/2022 16:57	15.61	ft
MW-1	ORP	Oxidation Reduction Potention	11/1/2022 16:57	242.81	mv
MW-1	PH	pH	11/1/2022 16:57	4.56	SU
MW-1	TEMP	Temperature	11/1/2022 16:57	20.8	C
MW-1	TURB	Turbidity	11/1/2022 16:57	2.95	NTU
MW-1	COND	Conductivity	11/1/2022 17:02	53.01	uS/cm
MW-1	DO	DO	11/1/2022 17:02	0.13	mg/L
MW-1	DTW	Depth to Water Detail	11/1/2022 17:02	15.61	ft
MW-1	ORP	Oxidation Reduction Potention	11/1/2022 17:02	242.66	mv
MW-1	PH	pH	11/1/2022 17:02	4.6	SU
MW-1	SULFIDE	Sulfide	11/1/2022 17:02	0	mg/L
MW-1	TEMP	Temperature	11/1/2022 17:02	20.76	C
MW-1	TURB	Turbidity	11/1/2022 17:02	2.93	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-2	COND	Conductivity	11/1/2022 15:56	51.08	uS/cm
MW-2	DO	DO	11/1/2022 15:56	6.62	mg/L
MW-2	DTW	Depth to Water Detail	11/1/2022 15:56	14.91	ft
MW-2	ORP	Oxidation Reduction Potention	11/1/2022 15:56	382.42	mv
MW-2	PH	pH	11/1/2022 15:56	4.48	SU
MW-2	TEMP	Temperature	11/1/2022 15:56	20.42	C
MW-2	TURB	Turbidity	11/1/2022 15:56	10.17	NTU
MW-2	COND	Conductivity	11/1/2022 16:01	50.82	uS/cm
MW-2	DO	DO	11/1/2022 16:01	6.43	mg/L
MW-2	DTW	Depth to Water Detail	11/1/2022 16:01	14.91	ft
MW-2	ORP	Oxidation Reduction Potention	11/1/2022 16:01	402.18	mv
MW-2	PH	pH	11/1/2022 16:01	4.32	SU
MW-2	TEMP	Temperature	11/1/2022 16:01	20.36	C
MW-2	TURB	Turbidity	11/1/2022 16:01	10.59	NTU
MW-2	COND	Conductivity	11/1/2022 16:06	50.4	uS/cm
MW-2	DO	DO	11/1/2022 16:06	6.27	mg/L
MW-2	DTW	Depth to Water Detail	11/1/2022 16:06	14.91	ft
MW-2	ORP	Oxidation Reduction Potention	11/1/2022 16:06	406.28	mv
MW-2	PH	pH	11/1/2022 16:06	4.34	SU
MW-2	TEMP	Temperature	11/1/2022 16:06	20.21	C
MW-2	TURB	Turbidity	11/1/2022 16:06	8.66	NTU
MW-2	COND	Conductivity	11/1/2022 16:11	50.28	uS/cm
MW-2	DO	DO	11/1/2022 16:11	6.13	mg/L
MW-2	DTW	Depth to Water Detail	11/1/2022 16:11	14.91	ft
MW-2	ORP	Oxidation Reduction Potention	11/1/2022 16:11	407.27	mv
MW-2	PH	pH	11/1/2022 16:11	4.38	SU
MW-2	TEMP	Temperature	11/1/2022 16:11	20.22	C
MW-2	TURB	Turbidity	11/1/2022 16:11	6.3	NTU
MW-2	COND	Conductivity	11/1/2022 16:16	50.18	uS/cm
MW-2	DO	DO	11/1/2022 16:16	6.15	mg/L
MW-2	DTW	Depth to Water Detail	11/1/2022 16:16	14.91	ft
MW-2	ORP	Oxidation Reduction Potention	11/1/2022 16:16	407.2	mv
MW-2	PH	pH	11/1/2022 16:16	4.42	SU
MW-2	SULFIDE	Sulfide	11/1/2022 16:16	0	mg/L
MW-2	TEMP	Temperature	11/1/2022 16:16	20.21	C
MW-2	TURB	Turbidity	11/1/2022 16:16	4.92	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-3	COND	Conductivity	11/1/2022 15:05	53	uS/cm
MW-3	DO	DO	11/1/2022 15:05	5.93	mg/L
MW-3	DTW	Depth to Water Detail	11/1/2022 15:05	17.51	ft
MW-3	ORP	Oxidation Reduction Potention	11/1/2022 15:05	352.04	mv
MW-3	PH	pH	11/1/2022 15:05	4.26	SU
MW-3	TEMP	Temperature	11/1/2022 15:05	20.17	C
MW-3	TURB	Turbidity	11/1/2022 15:05	2.51	NTU
MW-3	COND	Conductivity	11/1/2022 15:10	53.02	uS/cm
MW-3	DO	DO	11/1/2022 15:10	5.72	mg/L
MW-3	DTW	Depth to Water Detail	11/1/2022 15:10	17.51	ft
MW-3	ORP	Oxidation Reduction Potention	11/1/2022 15:10	379.85	mv
MW-3	PH	pH	11/1/2022 15:10	4.15	SU
MW-3	TEMP	Temperature	11/1/2022 15:10	20.21	C
MW-3	TURB	Turbidity	11/1/2022 15:10	2.48	NTU
MW-3	COND	Conductivity	11/1/2022 15:15	52.95	uS/cm
MW-3	DO	DO	11/1/2022 15:15	5.69	mg/L
MW-3	DTW	Depth to Water Detail	11/1/2022 15:15	17.51	ft
MW-3	ORP	Oxidation Reduction Potention	11/1/2022 15:15	392.31	mv
MW-3	PH	pH	11/1/2022 15:15	4.1	SU
MW-3	TEMP	Temperature	11/1/2022 15:15	20.28	C
MW-3	TURB	Turbidity	11/1/2022 15:15	2.82	NTU
MW-3	COND	Conductivity	11/1/2022 15:20	52.86	uS/cm
MW-3	DO	DO	11/1/2022 15:20	5.67	mg/L
MW-3	DTW	Depth to Water Detail	11/1/2022 15:20	17.51	ft
MW-3	ORP	Oxidation Reduction Potention	11/1/2022 15:20	397.88	mv
MW-3	PH	pH	11/1/2022 15:20	4.12	SU
MW-3	SULFIDE	Sulfide	11/1/2022 15:20	0	mg/L
MW-3	TEMP	Temperature	11/1/2022 15:20	20.26	C
MW-3	TURB	Turbidity	11/1/2022 15:20	1.53	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-4	COND	Conductivity	11/1/2022 13:59	56.34	uS/cm
MW-4	DO	DO	11/1/2022 13:59	6.29	mg/L
MW-4	DTW	Depth to Water Detail	11/1/2022 13:59	23.56	ft
MW-4	ORP	Oxidation Reduction Potention	11/1/2022 13:59	321.66	mv
MW-4	PH	pH	11/1/2022 13:59	4.65	SU
MW-4	TEMP	Temperature	11/1/2022 13:59	21.62	C
MW-4	TURB	Turbidity	11/1/2022 13:59	11.44	NTU
MW-4	COND	Conductivity	11/1/2022 14:04	54.17	uS/cm
MW-4	DO	DO	11/1/2022 14:04	6.05	mg/L
MW-4	DTW	Depth to Water Detail	11/1/2022 14:04	23.56	ft
MW-4	ORP	Oxidation Reduction Potention	11/1/2022 14:04	339.81	mv
MW-4	PH	pH	11/1/2022 14:04	4.68	SU
MW-4	TEMP	Temperature	11/1/2022 14:04	21.62	C
MW-4	TURB	Turbidity	11/1/2022 14:04	7.81	NTU
MW-4	COND	Conductivity	11/1/2022 14:09	52.38	uS/cm
MW-4	DO	DO	11/1/2022 14:09	5.92	mg/L
MW-4	DTW	Depth to Water Detail	11/1/2022 14:09	23.56	ft
MW-4	ORP	Oxidation Reduction Potention	11/1/2022 14:09	355.2	mv
MW-4	PH	pH	11/1/2022 14:09	4.62	SU
MW-4	TEMP	Temperature	11/1/2022 14:09	21.6	C
MW-4	TURB	Turbidity	11/1/2022 14:09	6.52	NTU
MW-4	COND	Conductivity	11/1/2022 14:14	52.02	uS/cm
MW-4	DO	DO	11/1/2022 14:14	5.87	mg/L
MW-4	DTW	Depth to Water Detail	11/1/2022 14:14	23.56	ft
MW-4	ORP	Oxidation Reduction Potention	11/1/2022 14:14	359.3	mv
MW-4	PH	pH	11/1/2022 14:14	4.69	SU
MW-4	TEMP	Temperature	11/1/2022 14:14	21.39	C
MW-4	TURB	Turbidity	11/1/2022 14:14	5.38	NTU
MW-4	COND	Conductivity	11/1/2022 14:19	51.53	uS/cm
MW-4	DO	DO	11/1/2022 14:19	5.78	mg/L
MW-4	DTW	Depth to Water Detail	11/1/2022 14:19	23.56	ft
MW-4	ORP	Oxidation Reduction Potention	11/1/2022 14:19	361.89	mv
MW-4	PH	pH	11/1/2022 14:19	4.74	SU
MW-4	SULFIDE	Sulfide	11/1/2022 14:19	0	mg/L
MW-4	TEMP	Temperature	11/1/2022 14:19	21.5	C
MW-4	TURB	Turbidity	11/1/2022 14:19	4.19	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:03	112.64	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:03	0.6	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:03	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:03	324.9	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:03	4.84	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:03	21.37	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:03	2.35	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:08	103.31	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:08	0.58	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:08	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:08	338.42	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:08	4.74	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:08	21.35	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:08	2.55	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:13	94.61	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:13	0.58	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:13	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:13	349.8	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:13	4.64	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:13	21.3	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:13	3.11	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:18	95.09	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:18	0.57	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:18	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:18	361.13	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:18	4.51	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:18	21.31	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:18	2.78	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:23	91.76	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:23	0.57	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:23	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:23	371.63	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:23	4.4	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:23	21.35	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:23	2.7	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:28	91.39	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:28	0.57	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:28	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:28	383.03	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:28	4.26	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:28	21.39	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:28	2.88	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:33	91.43	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:33	0.57	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:33	30.17	ft

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:33	396.26	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:33	4.08	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:33	21.35	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:33	2.56	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:38	89.7	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:38	0.58	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:38	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:38	410.92	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:38	3.87	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:38	21.39	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:38	2.33	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:43	89.81	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:43	0.59	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:43	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:43	415.61	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:43	3.78	SU
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:43	21.44	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:43	2.89	NTU
BY-GSA-MW-8	COND	Conductivity	11/2/2022 15:48	90.27	uS/cm
BY-GSA-MW-8	DO	DO	11/2/2022 15:48	0.59	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	11/2/2022 15:48	30.17	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	11/2/2022 15:48	412.28	mv
BY-GSA-MW-8	PH	pH	11/2/2022 15:48	3.84	SU
BY-GSA-MW-8	SULFIDE	Sulfide	11/2/2022 15:48	0	mg/L
BY-GSA-MW-8	TEMP	Temperature	11/2/2022 15:48	21.41	C
BY-GSA-MW-8	TURB	Turbidity	11/2/2022 15:48	2.9	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:07	128.68	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:07	3.07	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:07	9.19	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:07	249.56	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:07	4.34	SU
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:07	22.7	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:07	7.86	NTU
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:12	123	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:12	2.98	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:12	9.19	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:12	273.19	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:12	4.31	SU
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:12	22.62	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:12	5.55	NTU
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:17	147.9	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:17	2.96	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:17	9.19	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:17	292.73	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:17	4.27	SU
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:17	22.64	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:17	3.25	NTU
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:22	119.9	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:22	2.97	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:22	9.19	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:22	313.61	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:22	4.15	SU
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:22	22.48	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:22	3.14	NTU
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:27	104.79	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:27	2.98	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:27	9.19	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:27	326.96	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:27	4.13	SU
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:27	22.46	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:27	3.41	NTU
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:32	104.45	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:32	2.97	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:32	9.19	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:32	345.54	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:32	4.01	SU
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:32	22.44	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:32	2.91	NTU
BY-GSA-MW-9	COND	Conductivity	11/2/2022 13:37	104.76	uS/cm
BY-GSA-MW-9	DO	DO	11/2/2022 13:37	2.95	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	11/2/2022 13:37	9.19	ft

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	11/2/2022 13:37	358.65	mv
BY-GSA-MW-9	PH	pH	11/2/2022 13:37	3.93	SU
BY-GSA-MW-9	SULFIDE	Sulfide	11/2/2022 13:37	0	mg/L
BY-GSA-MW-9	TEMP	Temperature	11/2/2022 13:37	22.44	C
BY-GSA-MW-9	TURB	Turbidity	11/2/2022 13:37	2.95	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-10	COND	Conductivity	11/2/2022 14:07	115.02	uS/cm
BY-GSA-MW-10	DO	DO	11/2/2022 14:07	4.51	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	11/2/2022 14:07	13.19	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	11/2/2022 14:07	370.17	mv
BY-GSA-MW-10	PH	pH	11/2/2022 14:07	3.87	SU
BY-GSA-MW-10	TEMP	Temperature	11/2/2022 14:07	21.99	C
BY-GSA-MW-10	TURB	Turbidity	11/2/2022 14:07	8.69	NTU
BY-GSA-MW-10	COND	Conductivity	11/2/2022 14:12	109.04	uS/cm
BY-GSA-MW-10	DO	DO	11/2/2022 14:12	4.51	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	11/2/2022 14:12	13.19	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	11/2/2022 14:12	373.76	mv
BY-GSA-MW-10	PH	pH	11/2/2022 14:12	3.95	SU
BY-GSA-MW-10	TEMP	Temperature	11/2/2022 14:12	21.95	C
BY-GSA-MW-10	TURB	Turbidity	11/2/2022 14:12	7.2	NTU
BY-GSA-MW-10	COND	Conductivity	11/2/2022 14:17	107.49	uS/cm
BY-GSA-MW-10	DO	DO	11/2/2022 14:17	4.52	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	11/2/2022 14:17	13.19	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	11/2/2022 14:17	377.72	mv
BY-GSA-MW-10	PH	pH	11/2/2022 14:17	3.96	SU
BY-GSA-MW-10	TEMP	Temperature	11/2/2022 14:17	21.87	C
BY-GSA-MW-10	TURB	Turbidity	11/2/2022 14:17	7.13	NTU
BY-GSA-MW-10	COND	Conductivity	11/2/2022 14:22	107.01	uS/cm
BY-GSA-MW-10	DO	DO	11/2/2022 14:22	4.53	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	11/2/2022 14:22	13.19	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	11/2/2022 14:22	364.8	mv
BY-GSA-MW-10	PH	pH	11/2/2022 14:22	4.23	SU
BY-GSA-MW-10	TEMP	Temperature	11/2/2022 14:22	21.89	C
BY-GSA-MW-10	TURB	Turbidity	11/2/2022 14:22	6.72	NTU
BY-GSA-MW-10	COND	Conductivity	11/2/2022 14:27	107.79	uS/cm
BY-GSA-MW-10	DO	DO	11/2/2022 14:27	4.51	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	11/2/2022 14:27	13.19	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	11/2/2022 14:27	364.59	mv
BY-GSA-MW-10	PH	pH	11/2/2022 14:27	4.4	SU
BY-GSA-MW-10	TEMP	Temperature	11/2/2022 14:27	21.7	C
BY-GSA-MW-10	TURB	Turbidity	11/2/2022 14:27	6.56	NTU
BY-GSA-MW-10	COND	Conductivity	11/2/2022 14:32	107.59	uS/cm
BY-GSA-MW-10	DO	DO	11/2/2022 14:32	4.5	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	11/2/2022 14:32	13.19	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	11/2/2022 14:32	368.36	mv
BY-GSA-MW-10	PH	pH	11/2/2022 14:32	4.39	SU
BY-GSA-MW-10	SULFIDE	Sulfide	11/2/2022 14:32	0	mg/L
BY-GSA-MW-10	TEMP	Temperature	11/2/2022 14:32	21.76	C
BY-GSA-MW-10	TURB	Turbidity	11/2/2022 14:32	6.75	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-5	COND	Conductivity	11/2/2022 14:59	192.35	uS/cm
BY-GSA-MW-5	DO	DO	11/2/2022 14:59	4.17	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	11/2/2022 14:59	29.92	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	11/2/2022 14:59	368.28	mv
BY-GSA-MW-5	PH	pH	11/2/2022 14:59	4.46	SU
BY-GSA-MW-5	TEMP	Temperature	11/2/2022 14:59	22.63	C
BY-GSA-MW-5	TURB	Turbidity	11/2/2022 14:59	2.36	NTU
BY-GSA-MW-5	COND	Conductivity	11/2/2022 15:04	191.35	uS/cm
BY-GSA-MW-5	DO	DO	11/2/2022 15:04	4.12	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	11/2/2022 15:04	29.92	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	11/2/2022 15:04	391.08	mv
BY-GSA-MW-5	PH	pH	11/2/2022 15:04	4.44	SU
BY-GSA-MW-5	TEMP	Temperature	11/2/2022 15:04	22.68	C
BY-GSA-MW-5	TURB	Turbidity	11/2/2022 15:04	2.39	NTU
BY-GSA-MW-5	COND	Conductivity	11/2/2022 15:09	189.79	uS/cm
BY-GSA-MW-5	DO	DO	11/2/2022 15:09	4.14	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	11/2/2022 15:09	29.92	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	11/2/2022 15:09	400.69	mv
BY-GSA-MW-5	PH	pH	11/2/2022 15:09	4.44	SU
BY-GSA-MW-5	TEMP	Temperature	11/2/2022 15:09	22.66	C
BY-GSA-MW-5	TURB	Turbidity	11/2/2022 15:09	1.75	NTU
BY-GSA-MW-5	COND	Conductivity	11/2/2022 15:14	185.77	uS/cm
BY-GSA-MW-5	DO	DO	11/2/2022 15:14	4.07	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	11/2/2022 15:14	29.92	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	11/2/2022 15:14	407.64	mv
BY-GSA-MW-5	PH	pH	11/2/2022 15:14	4.42	SU
BY-GSA-MW-5	SULFIDE	Sulfide	11/2/2022 15:14	0	mg/L
BY-GSA-MW-5	TEMP	Temperature	11/2/2022 15:14	22.73	C
BY-GSA-MW-5	TURB	Turbidity	11/2/2022 15:14	1.16	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-6	COND	Conductivity	11/2/2022 15:51	130.25	uS/cm
BY-GSA-MW-6	DO	DO	11/2/2022 15:51	4.78	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	11/2/2022 15:51	17.79	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	11/2/2022 15:51	336.3	mv
BY-GSA-MW-6	PH	pH	11/2/2022 15:51	4.95	SU
BY-GSA-MW-6	TEMP	Temperature	11/2/2022 15:51	23.26	C
BY-GSA-MW-6	TURB	Turbidity	11/2/2022 15:51	2.03	NTU
BY-GSA-MW-6	COND	Conductivity	11/2/2022 15:56	130.34	uS/cm
BY-GSA-MW-6	DO	DO	11/2/2022 15:56	4.74	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	11/2/2022 15:56	17.79	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	11/2/2022 15:56	355.23	mv
BY-GSA-MW-6	PH	pH	11/2/2022 15:56	4.89	SU
BY-GSA-MW-6	TEMP	Temperature	11/2/2022 15:56	23.19	C
BY-GSA-MW-6	TURB	Turbidity	11/2/2022 15:56	2	NTU
BY-GSA-MW-6	COND	Conductivity	11/2/2022 16:01	130.7	uS/cm
BY-GSA-MW-6	DO	DO	11/2/2022 16:01	4.73	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	11/2/2022 16:01	17.79	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	11/2/2022 16:01	363.99	mv
BY-GSA-MW-6	PH	pH	11/2/2022 16:01	4.87	SU
BY-GSA-MW-6	TEMP	Temperature	11/2/2022 16:01	23.13	C
BY-GSA-MW-6	TURB	Turbidity	11/2/2022 16:01	2.12	NTU
BY-GSA-MW-6	COND	Conductivity	11/2/2022 16:06	131.4	uS/cm
BY-GSA-MW-6	DO	DO	11/2/2022 16:06	4.78	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	11/2/2022 16:06	17.79	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	11/2/2022 16:06	371.25	mv
BY-GSA-MW-6	PH	pH	11/2/2022 16:06	4.84	SU
BY-GSA-MW-6	SULFIDE	Sulfide	11/2/2022 16:06	0	mg/L
BY-GSA-MW-6	TEMP	Temperature	11/2/2022 16:06	23.03	C
BY-GSA-MW-6	TURB	Turbidity	11/2/2022 16:06	1.78	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-7	COND	Conductivity	11/2/2022 12:52	93.96	uS/cm
BY-GSA-MW-7	DO	DO	11/2/2022 12:52	2.19	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	11/2/2022 12:52	16.72	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	11/2/2022 12:52	308.87	mv
BY-GSA-MW-7	PH	pH	11/2/2022 12:52	4.69	SU
BY-GSA-MW-7	TEMP	Temperature	11/2/2022 12:52	22.26	C
BY-GSA-MW-7	TURB	Turbidity	11/2/2022 12:52	13.9	NTU
BY-GSA-MW-7	COND	Conductivity	11/2/2022 12:57	90.34	uS/cm
BY-GSA-MW-7	DO	DO	11/2/2022 12:57	2.23	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	11/2/2022 12:57	16.72	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	11/2/2022 12:57	336.2	mv
BY-GSA-MW-7	PH	pH	11/2/2022 12:57	4.62	SU
BY-GSA-MW-7	TEMP	Temperature	11/2/2022 12:57	22.24	C
BY-GSA-MW-7	TURB	Turbidity	11/2/2022 12:57	13.3	NTU
BY-GSA-MW-7	COND	Conductivity	11/2/2022 13:02	88.84	uS/cm
BY-GSA-MW-7	DO	DO	11/2/2022 13:02	2.28	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	11/2/2022 13:02	16.72	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	11/2/2022 13:02	340.74	mv
BY-GSA-MW-7	PH	pH	11/2/2022 13:02	4.72	SU
BY-GSA-MW-7	TEMP	Temperature	11/2/2022 13:02	22.06	C
BY-GSA-MW-7	TURB	Turbidity	11/2/2022 13:02	11.19	NTU
BY-GSA-MW-7	COND	Conductivity	11/2/2022 13:07	88.07	uS/cm
BY-GSA-MW-7	DO	DO	11/2/2022 13:07	2.29	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	11/2/2022 13:07	16.72	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	11/2/2022 13:07	348.93	mv
BY-GSA-MW-7	PH	pH	11/2/2022 13:07	4.75	SU
BY-GSA-MW-7	SULFIDE	Sulfide	11/2/2022 13:07	0	mg/L
BY-GSA-MW-7	TEMP	Temperature	11/2/2022 13:07	22.12	C
BY-GSA-MW-7	TURB	Turbidity	11/2/2022 13:07	8.68	NTU

**Plant Barry Gypsum Pond
Field Parameter Summary**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-PZ-11	COND	Conductivity	11/2/2022 13:52	52.98	uS/cm
BY-GSA-PZ-11	DO	DO	11/2/2022 13:52	4.85	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	11/2/2022 13:52	22.43	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	11/2/2022 13:52	354.04	mv
BY-GSA-PZ-11	PH	pH	11/2/2022 13:52	4.63	SU
BY-GSA-PZ-11	TEMP	Temperature	11/2/2022 13:52	22.8	C
BY-GSA-PZ-11	TURB	Turbidity	11/2/2022 13:52	4.05	NTU
BY-GSA-PZ-11	COND	Conductivity	11/2/2022 13:57	53.04	uS/cm
BY-GSA-PZ-11	DO	DO	11/2/2022 13:57	4.84	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	11/2/2022 13:57	22.43	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	11/2/2022 13:57	372.62	mv
BY-GSA-PZ-11	PH	pH	11/2/2022 13:57	4.56	SU
BY-GSA-PZ-11	TEMP	Temperature	11/2/2022 13:57	22.84	C
BY-GSA-PZ-11	TURB	Turbidity	11/2/2022 13:57	2.92	NTU
BY-GSA-PZ-11	COND	Conductivity	11/2/2022 14:02	53.06	uS/cm
BY-GSA-PZ-11	DO	DO	11/2/2022 14:02	4.82	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	11/2/2022 14:02	22.43	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	11/2/2022 14:02	386.05	mv
BY-GSA-PZ-11	PH	pH	11/2/2022 14:02	4.48	SU
BY-GSA-PZ-11	TEMP	Temperature	11/2/2022 14:02	22.67	C
BY-GSA-PZ-11	TURB	Turbidity	11/2/2022 14:02	2.33	NTU
BY-GSA-PZ-11	COND	Conductivity	11/2/2022 14:07	53.25	uS/cm
BY-GSA-PZ-11	DO	DO	11/2/2022 14:07	4.85	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	11/2/2022 14:07	22.43	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	11/2/2022 14:07	387.23	mv
BY-GSA-PZ-11	PH	pH	11/2/2022 14:07	4.57	SU
BY-GSA-PZ-11	SULFIDE	Sulfide	11/2/2022 14:07	0	mg/L
BY-GSA-PZ-11	TEMP	Temperature	11/2/2022 14:07	22.55	C
BY-GSA-PZ-11	TURB	Turbidity	11/2/2022 14:07	2.35	NTU

Appendix D



Appendix D. Horizontal Groundwater Flow Velocity Calculations Plant Barry Gypsum Pond

2022 First Semi-Annual Monitoring Event								
Date of Measurement	MW-2	MW-7	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	K (ft/d)	n	(ft/d)	(ft/yr)
5/23/2022	6.03	5.72	1138.82	0.00027	9.40	0.25	0.010	3.7

2022 Second Semi-Annual Monitoring Event								
Date of Measurement	MW-2	MW-7	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	K (ft/d)	n	(ft/d)	(ft/yr)
10/31/2022	5.00	3.89	1138.82	0.00097	9.40	0.25	0.037	13.4

Notes:

The hydraulic conductivity value utilized in this calculation was derived from an aquifer pumping test previously conducted
ft = feet; ft/d = feet per day; ft/ft = feet per foot; ft/yr = feet per year

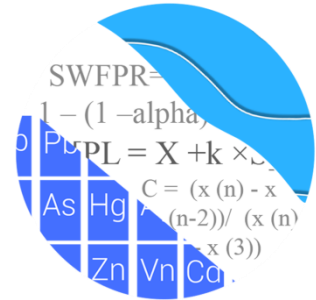
Appendix E

GROUNDWATER STATS CONSULTING

July 27, 2022

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Gypsum Pond
1st Semi-Annual Analysis – June 2022



Dear Mr. Dyer,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the June 2022 1st semi-annual sample event for Alabama Power Company's Plant Barry Gypsum Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-MW-10, and BY-GSA-PZ-11

Note that BY-GSA-PZ-11 was converted from a piezometer to a downgradient monitoring well and currently has 5 samples. Therefore, data are analyzed along with neighboring downgradient wells for Appendix IV constituents using confidence intervals which require a minimum of 4 samples. However, data from this well are not yet analyzed for Appendix III constituents using prediction limits, which require a minimum of 8 samples.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance,

and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). A substitution of the most recent reporting limit is used for non-detect data. Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 15
- # Background Samples (Interwell): 72
- # Constituents: 7
- # Downgradient wells: 6

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for chloride and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, fluoride, pH, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (USEPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater

quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update – Conducted in Fall 2021

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, were updated during the Fall 2021 by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new data points. Historical data were evaluated for updating with newer data through May 2021 through the use of time series graphs to identify potential outliers when necessary, as well as the Mann Whitney test for equality of medians. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate chloride and sulfate at all wells due to natural spatial variation for these parameters.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, fluoride, pH and TDS.

Outlier Analysis

Proposed background data through May 2021 were reviewed to identify any newly suspected outliers at all wells for chloride and sulfate, and through October 2021 at upgradient wells for boron, calcium, fluoride, pH, and TDS. No new outliers were noted (Figure C). When values are identified as outliers, these measurements are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative (i.e., lower) from a regulatory perspective. Also, outliers that are not identified as significant by Tukey's test may be identified visually. Typically, the most recent value is not flagged as an outlier in the event that it precedes future trends. All flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. A summary of flagged outliers follows this report (Figure C).

Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through May 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- Sulfate: BY-GSA-MW-8 and BY-GSA-MW-9

Decrease

- Chloride: BY-UP-MW-4 (upgradient)

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a naturally occurring shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

The record for chloride at upgradient well BY-GSA-MW-4 was updated since data at upgradient wells represent naturally occurring groundwater quality unimpacted by the facility. Additionally, the decreasing shift between historical and compliance data was small and signifies lower concentrations, which subsequently results in a more conservative (i.e., lower) statistical limit.

Regarding the statistically significant increases in medians for sulfate at wells BY-GSA-MW-8 and BY-GSA-MW-9, the group of new measurements were similar to those observed historically for both wells, and similar to reported concentrations of sulfate in at least one upgradient well which typically indicates natural variation in groundwater quality rather than a result of practices from the facility. Therefore, these records were updated with more recent data.

Trend Tests – Upgradient Wells

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. The following upgradient well/constituent pairs were found to have statistically significant trends:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-2
- TDS: BY-UP-MW-1, BY-UP-MW-2, and BY-UP-MW-4

Decreasing

- pH: BY-UP-MW-2, BY-UP-MW-3 and BY-UP-MW-4

The median slopes for calcium, pH and TDS at the above wells were small relative to average concentrations at these wells and reported measurements were similar across all upgradient wells. In the case of fluoride, the increasing trend is a result of non-detects in the more recent portion of the record compared to trace values reported in the historical portion of the record. Therefore, no adjustments were required to any of the records.

Evaluation of Appendix III Parameters – May/June 2022

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. The most recent sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Background data are re-evaluated when a minimum of 4 compliance samples are available.

Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

Prediction Limits – May/June 2022

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for chloride and sulfate using screened background data through May 2021 at each well (Figure D). The May/June 2022 sample at each well was compared to its respective intrawell prediction limit. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs, and a summary of all flagged outliers follows this report (Figure C).

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, fluoride, pH, and TDS (Figure E).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. A summary of the prediction limits results may be found in the Prediction Limit Summary tables following this letter. The following exceedances were noted for the interwell and intrawell prediction limits:

Intrawell:

- Chloride: BY-GSA-MW-5
- Sulfate: BY-GSA-MW-5

Interwell:

- Boron: BY-GSA-MW-5 and BY-GSA-MW-6
- Calcium: BY-GSA-MW-5 and BY-GSA-MW-6
- TDS: BY-GSA-MW-5 and BY-GSA-MW-6

Trend Tests

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure F). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. A

summary of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Calcium: BY-UP-MW-3 and BY-UP-MW-4 (both upgradient)
- TDS: BY-UP-MW-1 and BY-UP-MW-4 (both upgradient)

Decreasing:

- Chloride: BY-UP-MW-2 and BY-UP-MW-4 (both upgradient)

Evaluation of Appendix IV Parameters – May/June 2022

Data from upgradient wells for Appendix IV parameters were reassessed for outliers during the previous analysis. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2023 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

Interwell Upper Tolerance Limits

First, background limits were determined using tolerance limits constructed from pooled upgradient well data through October 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed.

Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure J) in the confidence interval comparisons described below.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through June 2022 for each of the Appendix IV parameters (Figure I). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the highest and lowest values in background as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects.

As mentioned above, well/constituent pairs with 100% non-detects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of deselected well/constituent pairs also follows this report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter. No exceedances were noted for any of the well/constituent pairs.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Barry Gypsum Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Easton Rayner
Groundwater Analyst

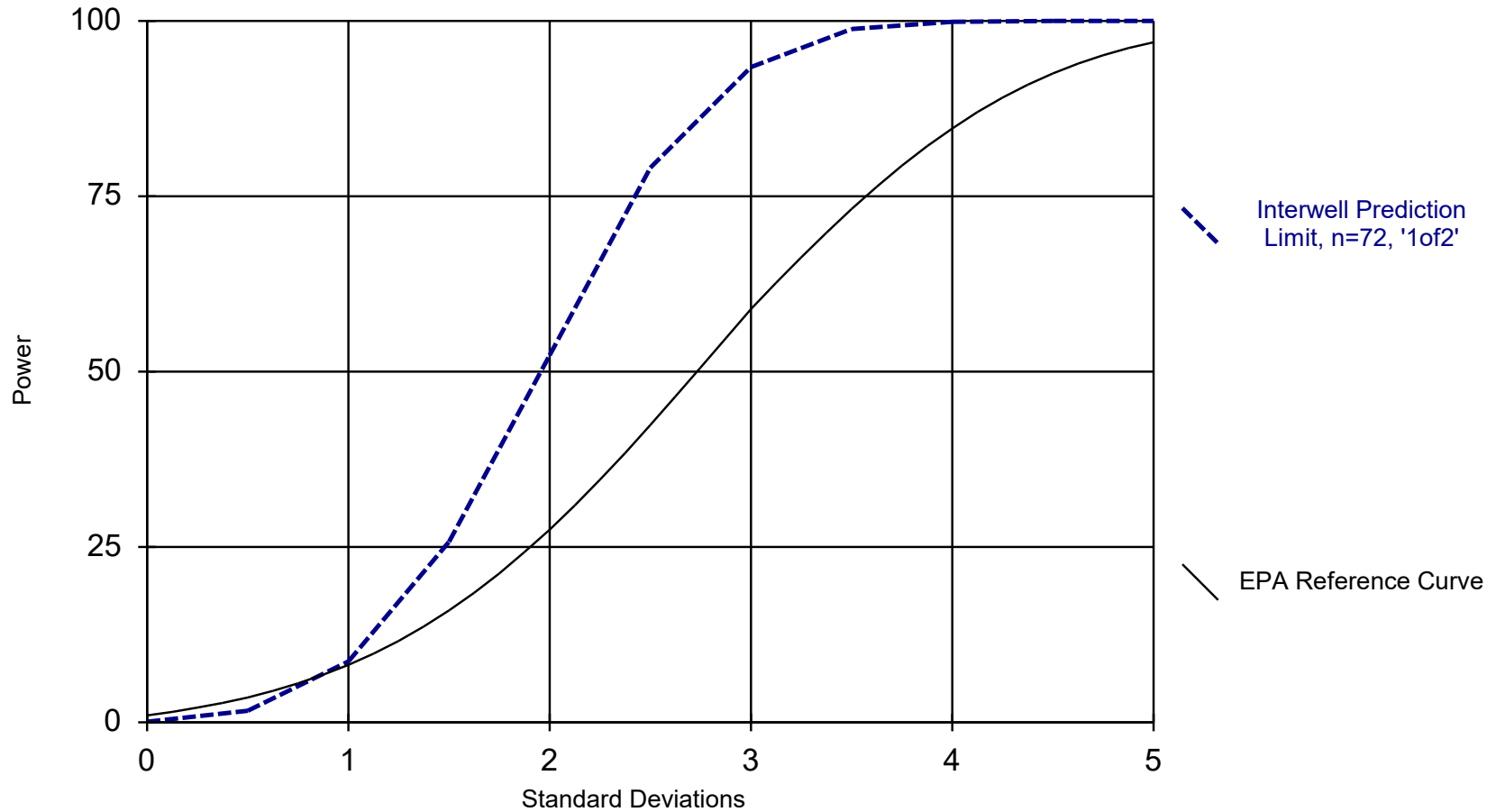


Andrew T. Collins
Project Manager



Kristina Rayner
Groundwater Analyst

Interwell Power Curve

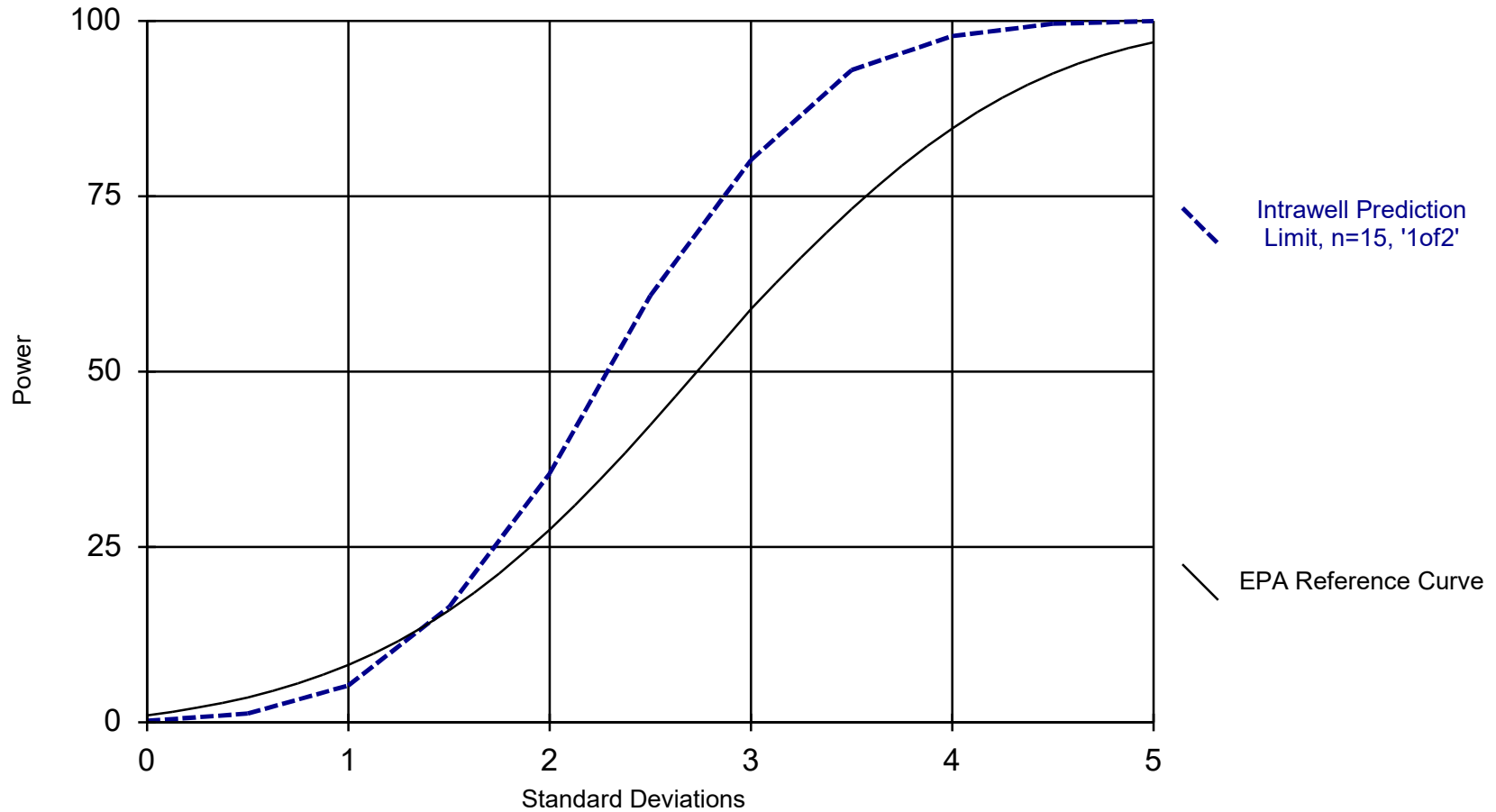


Kappa = 1.866, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/27/2022 11:16 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Intrawell Power Curve



Kappa = 2.25, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/20/2022 4:10 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

100% Non-Detects: Appendix IV Downgradient

Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Antimony (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Beryllium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Cadmium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Fluoride (mg/L)

BY-GSA-MW-5, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-PZ-11

Lead (mg/L)

BY-GSA-MW-8

Lithium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Mercury (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Molybdenum (mg/L)

BY-GSA-MW-10, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-9, BY-GSA-PZ-11

Thallium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg. N	Bg. Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	5/31/2022	7.83	Yes	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	5/31/2022	48.7	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-UP-MW-1	8.264	n/a	5/31/2022	1.93	No	16	1.897	0.4435	6.25	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	6/1/2022	3.35	No	16	3.79	0.6038	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.698	n/a	5/31/2022	2.17	No	16	3.416	1.035	6.25	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	5/31/2022	3.39	No	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	5/31/2022	3.31	No	16	1.912	0.08933	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	5/31/2022	7.83	Yes	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	5/31/2022	7.22	No	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	6/1/2022	14.7	No	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	6/1/2022	5.38	No	16	4.673	0.412	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	6/1/2022	4.29	No	16	6.335	2.163	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	5/31/2022	12.8	No	16	3.458	0.85	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	6/1/2022	11.4	No	16	9.999	1.445	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	5/31/2022	8.09	No	16	6.282	1.406	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	5/31/2022	7.02	No	16	7.496	0.6224	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	5/31/2022	7.94	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	5/31/2022	48.7	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	5/31/2022	38.6	No	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	6/1/2022	3.4	No	16	3.349	0.8938	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	6/1/2022	5.11	No	16	3.852	0.8066	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	6/1/2022	13	No	16	8.877	2.273	0	None	No	0.001254	Param Intra 1 of 2

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	5/31/2022	0.939	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	5/31/2022	0.685	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.067	n/a	5/31/2022	8.52	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.067	n/a	5/31/2022	9.98	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	5/31/2022	104	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	5/31/2022	85.3	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	6/1/2022	0.0493J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	5/31/2022	0.939	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	5/31/2022	0.685	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	6/1/2022	0.0933J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.067	n/a	6/1/2022	1.04	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.067	n/a	5/31/2022	8.52	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.067	n/a	5/31/2022	9.98	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-7	2.067	n/a	6/1/2022	1.27	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.067	n/a	6/1/2022	0.94	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.067	n/a	6/1/2022	1.55	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	5/31/2022	4.61	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	5/31/2022	4.98	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	6/1/2022	4.03	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	6/1/2022	4.49	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	6/1/2022	40.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	5/31/2022	104	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	5/31/2022	85.3	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	6/1/2022	41.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	6/1/2022	30.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	6/1/2022	39.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2

Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.07505	86	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1262	111	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.385	-100	-68	Yes	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05925	-69	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	3.147	72	68	Yes	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	3.695	95	68	Yes	18	22.22	n/a	n/a	0.01	NP

Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-UP-MW-1 (bg)	0	-19	-68	No	18	44.44	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	26	68	No	18	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	25	68	No	18	88.89	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-5	0.008619	18	68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.01595	11	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	0.02597	19	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.06598	57	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.07505	86	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1262	111	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	-0.1695	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-1.153	-35	-68	No	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1727	-38	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.385	-100	-68	Yes	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.04978	-67	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05925	-69	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-5	0.1679	24	68	No	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	1.548	45	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0	0	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.07308	-27	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.02454	-6	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	-0.7242	-22	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	3.147	72	68	Yes	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	1.703	57	68	No	18	11.11	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	1.36	45	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	3.695	95	68	Yes	18	22.22	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-5	0.6798	5	68	No	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-6.309	-28	-68	No	18	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

BARRY GYPSUM POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

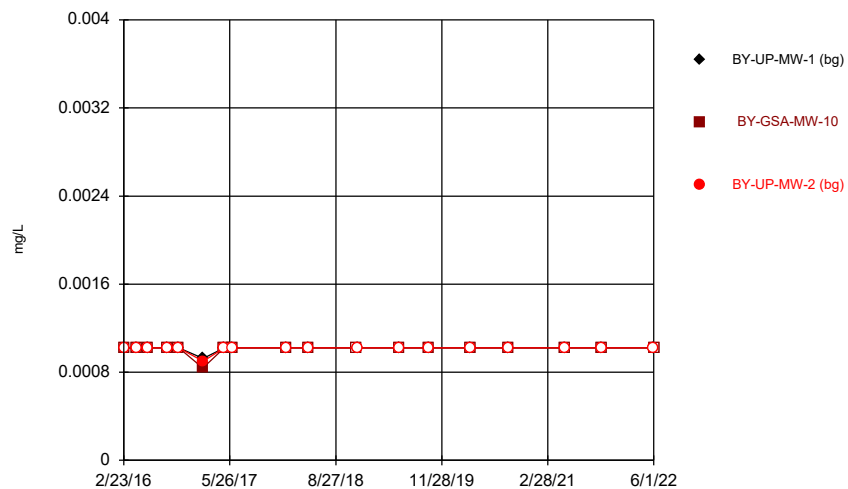
Confidence Interval Summary Table - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-GSA-MW-10	0.0002	0.00009	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.00053	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.000821	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-7	0.00024	0.000177	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-8	0.0002	0.00016	0.01	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.0002	0.0001	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-PZ-11	0.0002	0.000111	0.01	No	5	60	No	0.031	NP (normality)
Barium (mg/L)	BY-GSA-MW-10	0.1332	0.1148	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.226	0.0684	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1825	0.08783	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.09037	0.04733	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.04899	0.04121	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1737	0.146	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08233	0.03831	2	No	5	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.00066	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-7	0.00102	0.000464	0.004	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.001	0.0000867	0.005	No	8	62.5	No	0.004	NP (normality)
Cadmium (mg/L)	BY-GSA-MW-6	0.001	0.00011	0.005	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.000695	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	50	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-6	0.01	0.00223	0.1	No	8	25	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.00131	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.01	0.00209	0.1	No	8	12.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.000783	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003411	0.002233	0.1	No	5	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002657	0.002223	0.006	No	8	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.00606	0.00217	0.006	No	8	50	No	0.004	NP (Cohens/xfrm)
Cobalt (mg/L)	BY-GSA-MW-6	0.006267	0.00304	0.006	No	8	25	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000437	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.00131	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	5	40	No	0.031	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.163	0.8366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.309	0.4039	5	No	8	0	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.368	0.7306	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.202	0.03543	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.412	0.2366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.72	5	No	8	0	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.274	0.3067	5	No	5	0	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.125	0.08	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.125	0.0591	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.125	0.07	4	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.0001	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.005	0.0000994	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.00011	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.0000798	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.00023	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.005	0.00012	0.015	No	5	40	No	0.031	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	87.5	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.0002	0.0001	0.1	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.0002	0.00008	0.1	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.00125	0.000778	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-5	0.0217	0.00102	0.05	No	8	50	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-6	0.01143	0.003687	0.05	No	8	0	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.00102	0.00058	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.00102	0.00052	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.00204	0.00102	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.001376	0.0007653	0.05	No	5	40	No	0.01	Param.

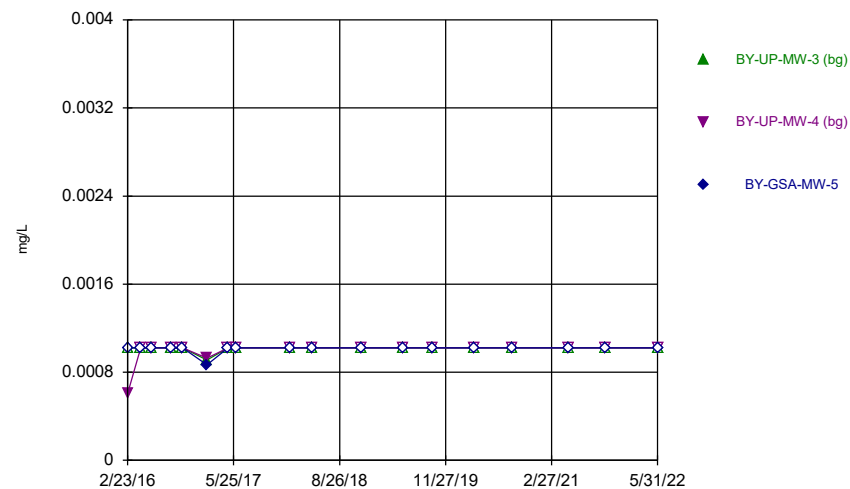
FIGURE A.

Time Series



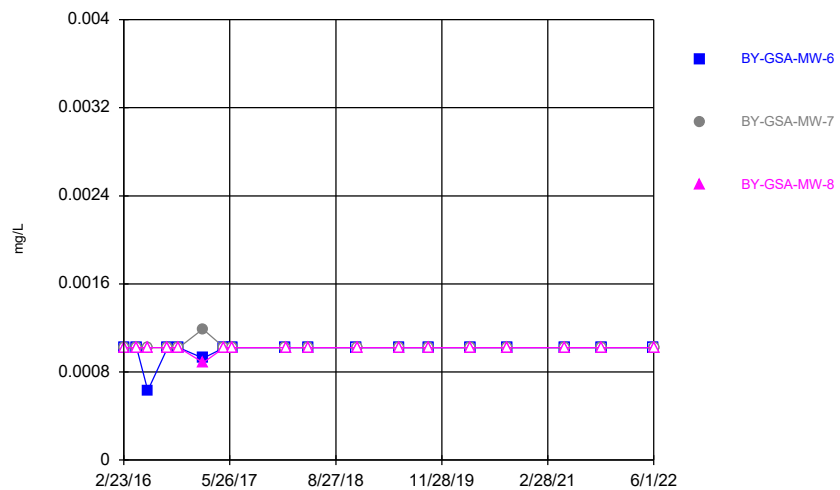
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Time Series



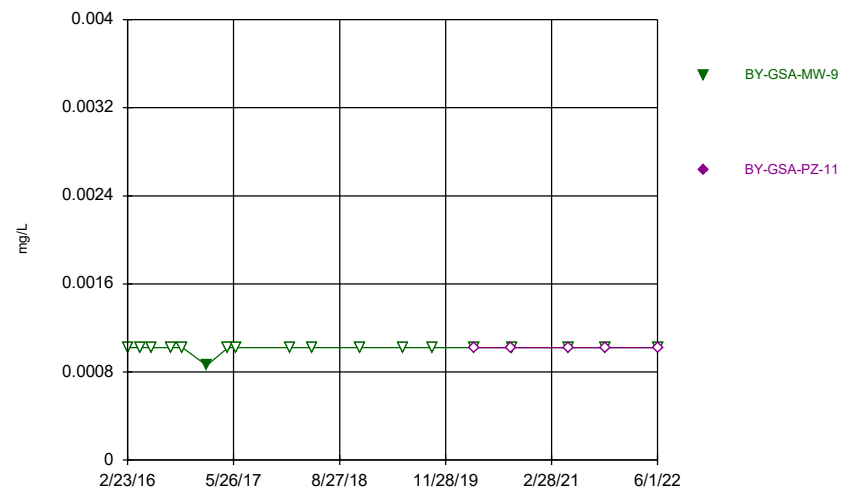
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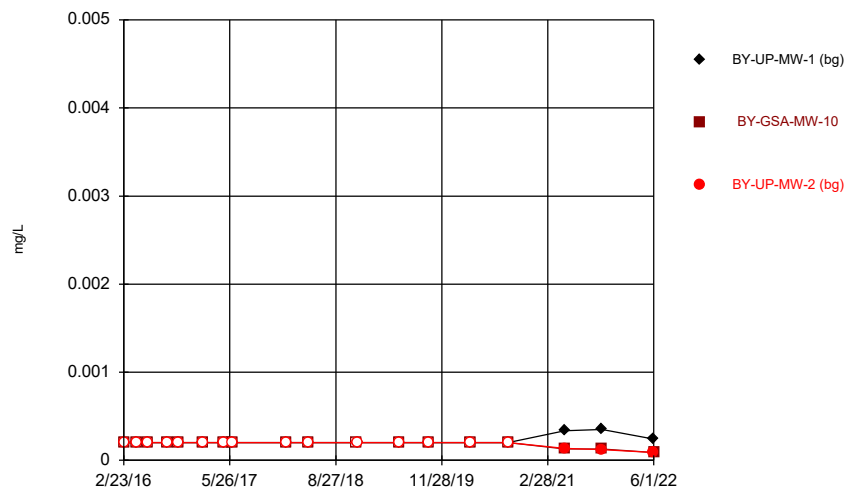
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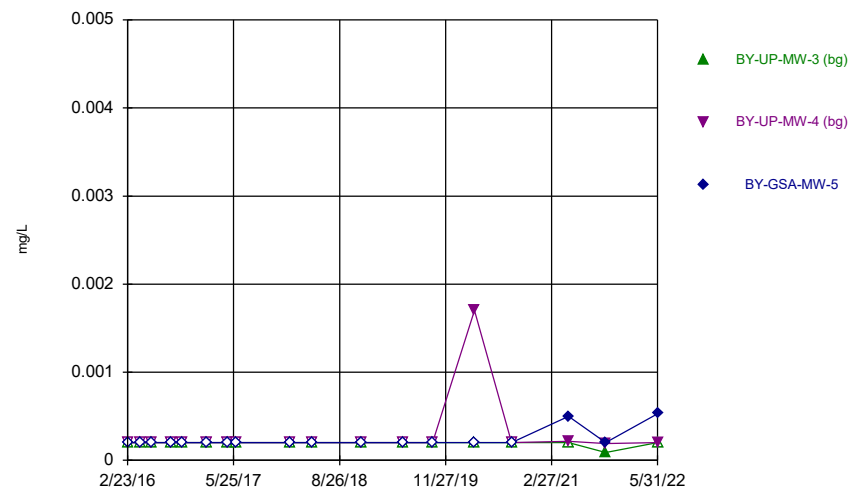
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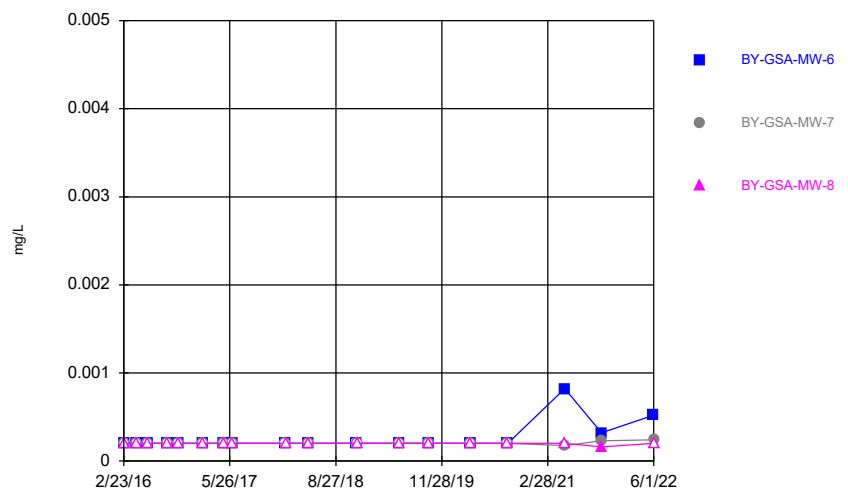
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Time Series



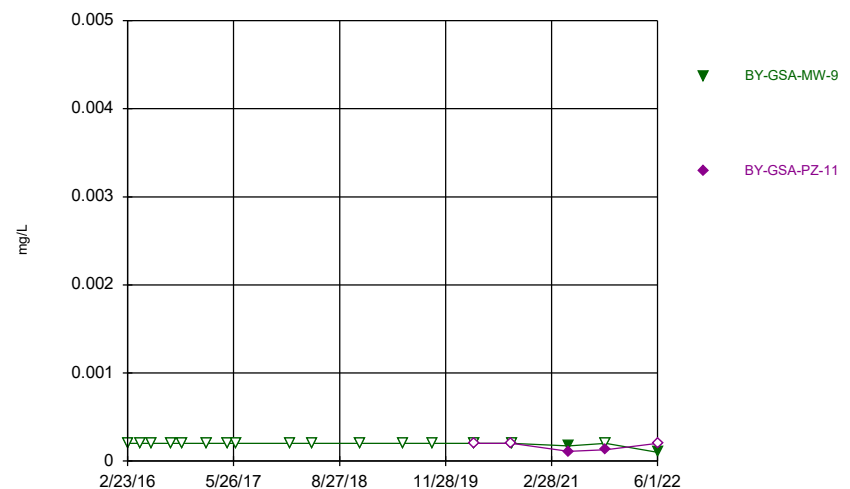
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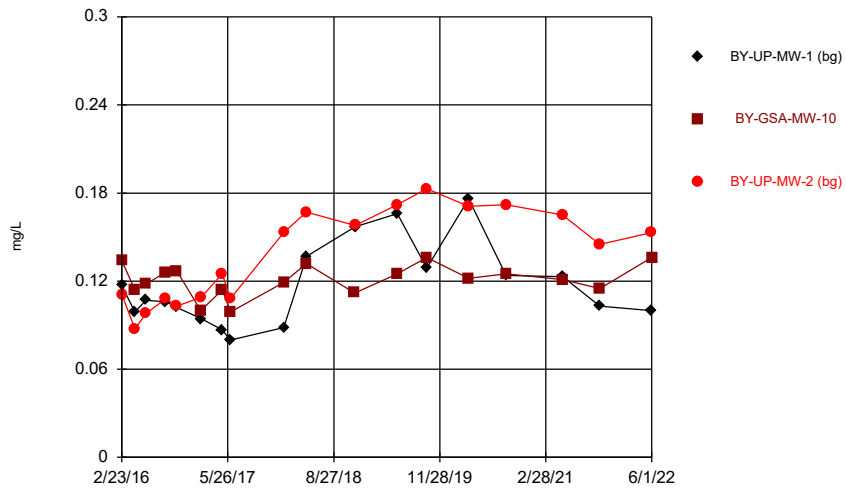
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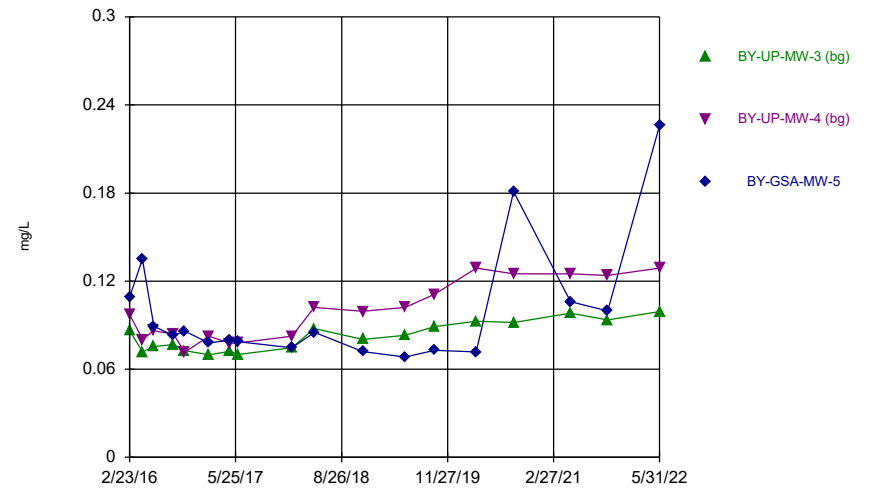
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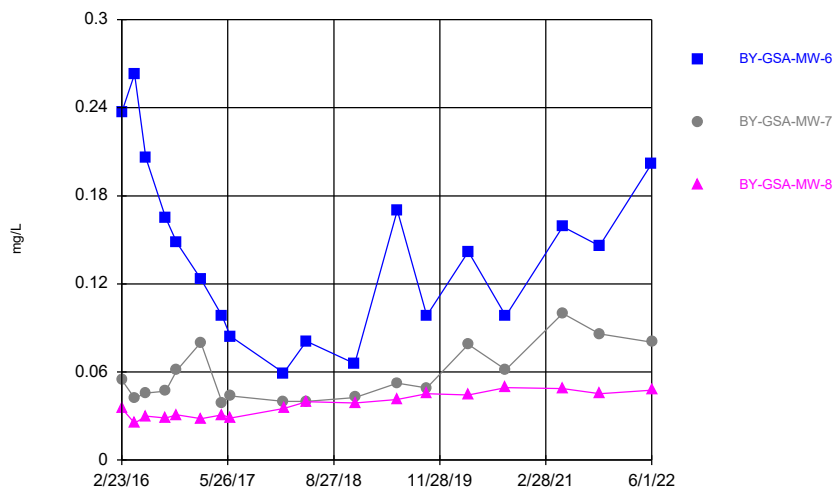
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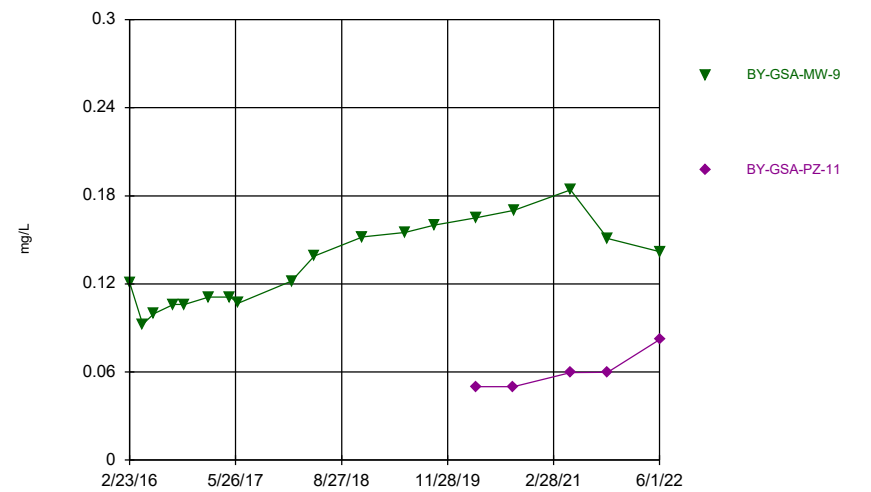
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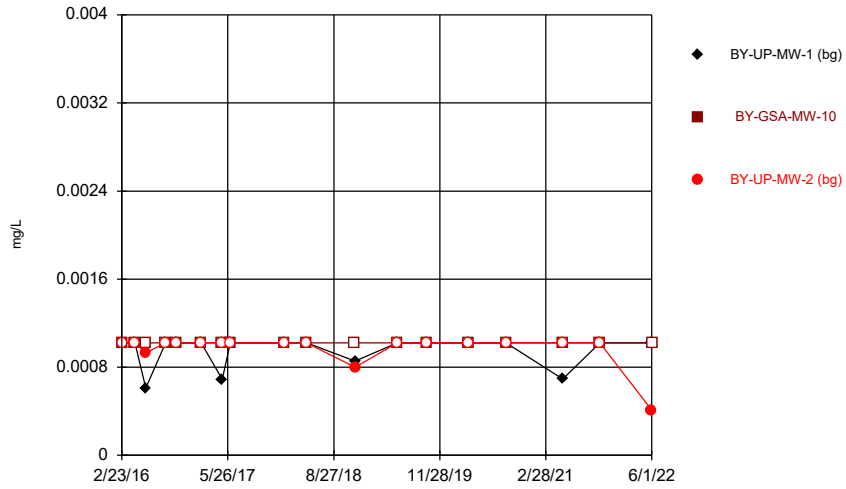
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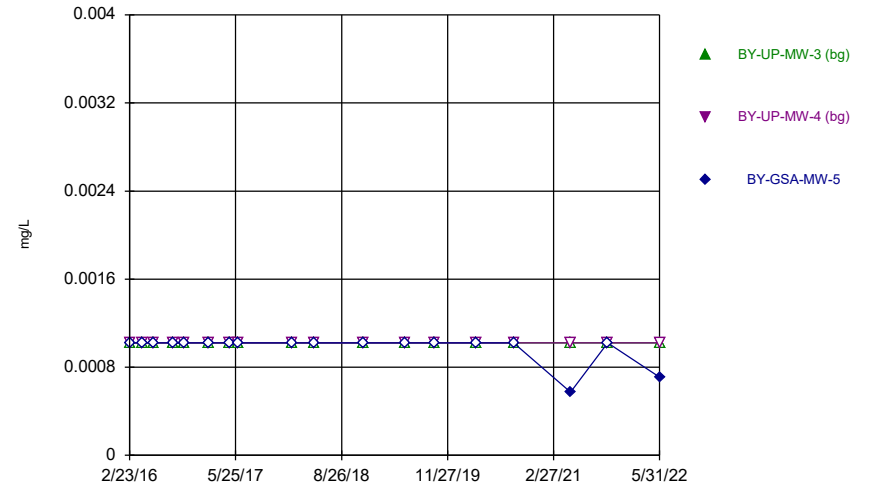
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Time Series



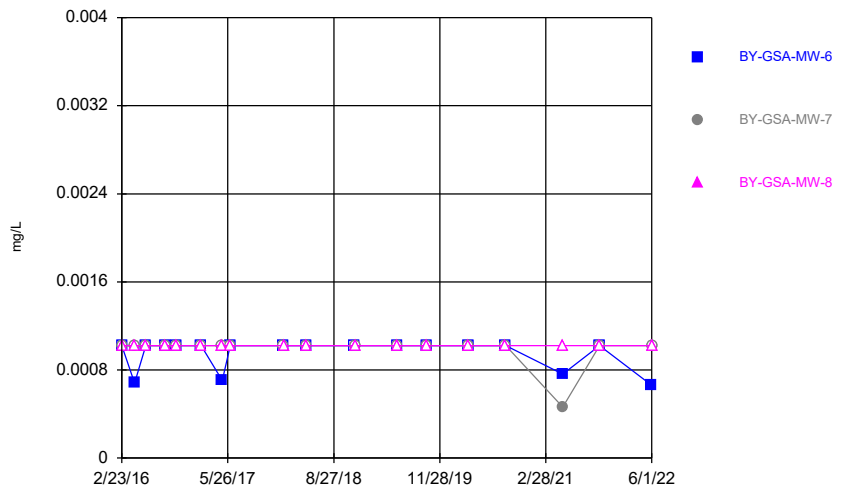
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



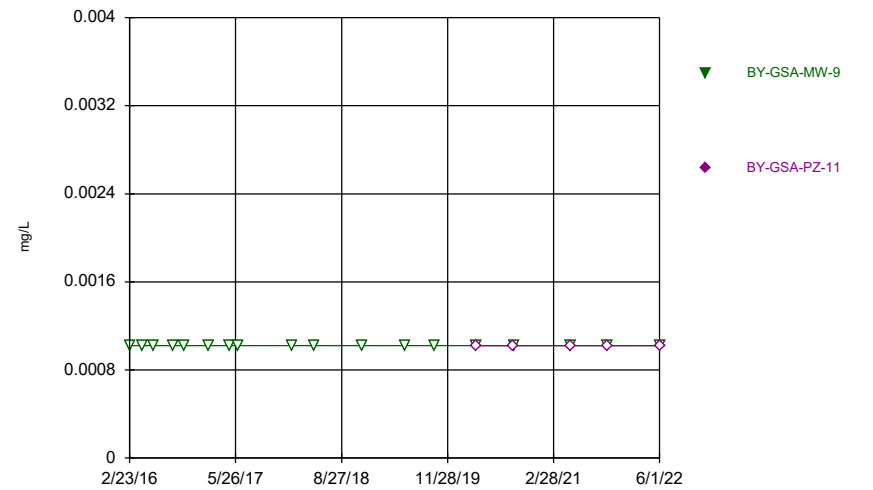
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Time Series



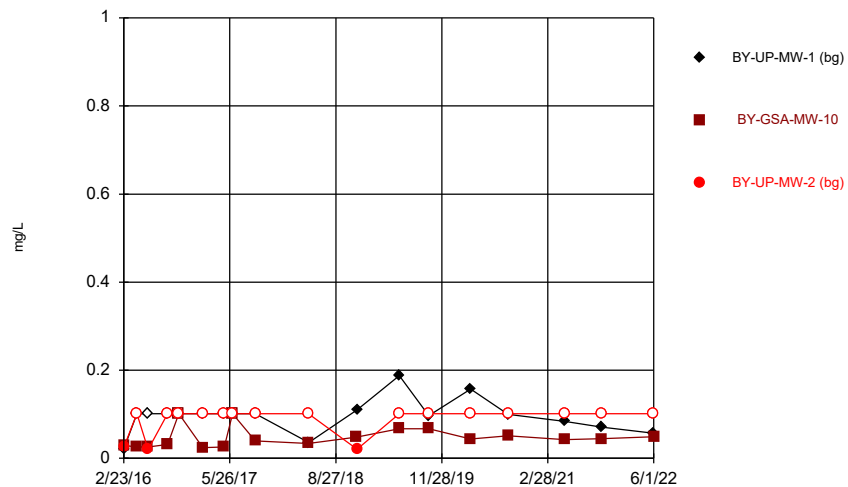
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Time Series



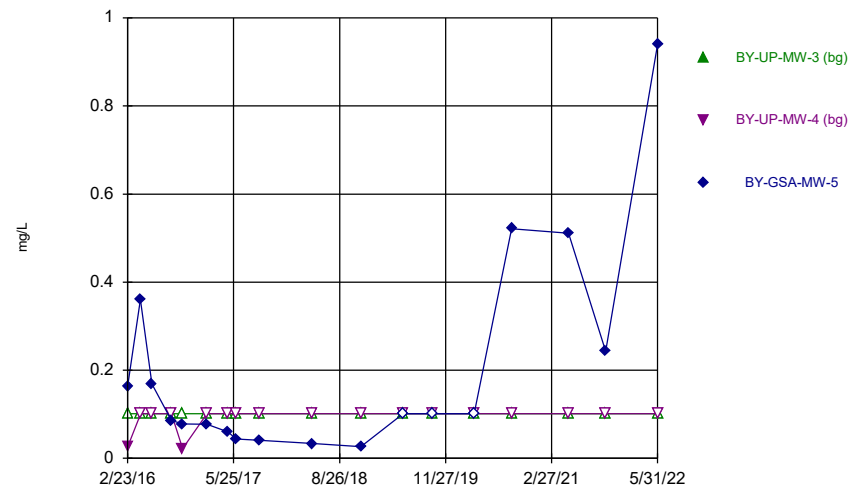
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Time Series



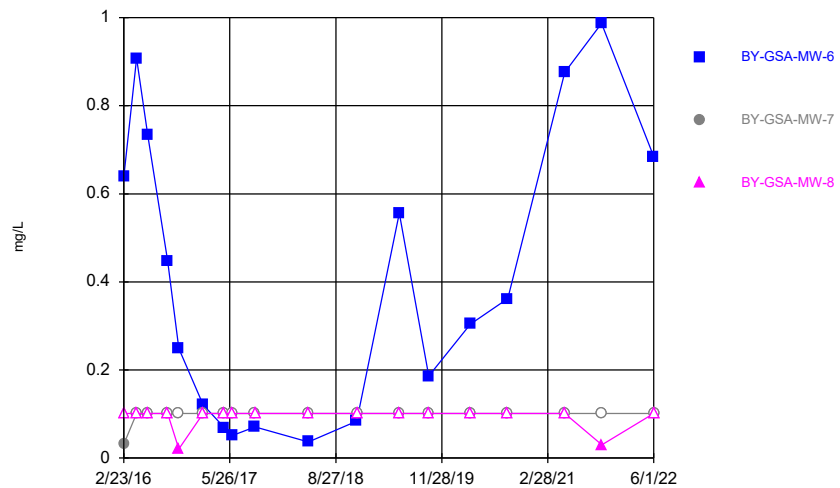
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Time Series



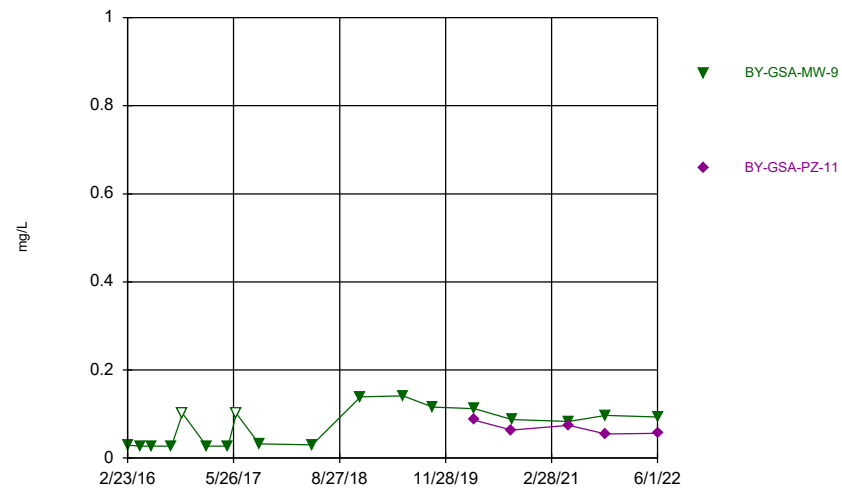
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Time Series



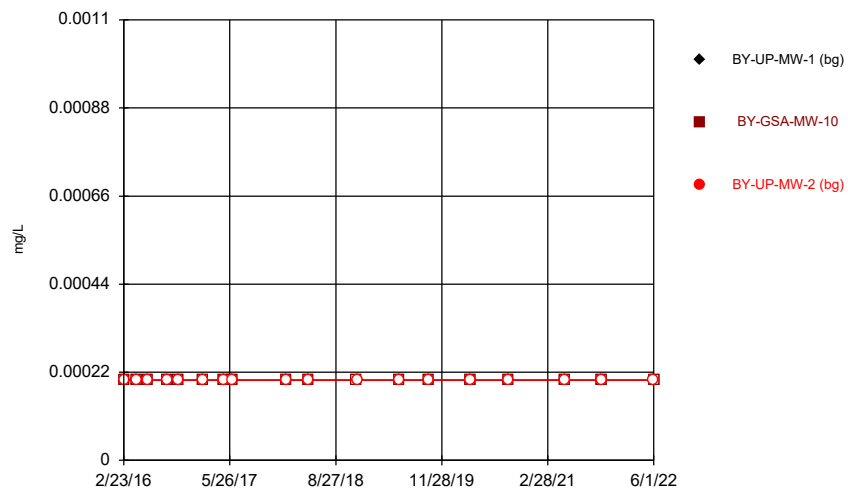
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Time Series



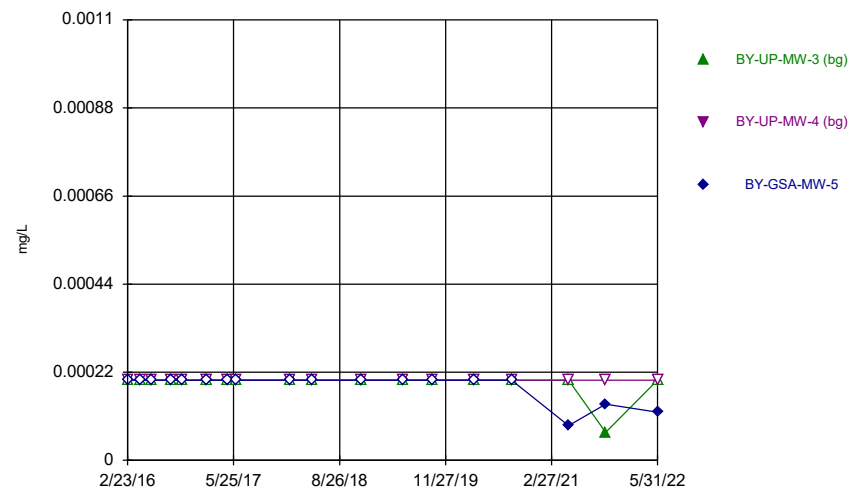
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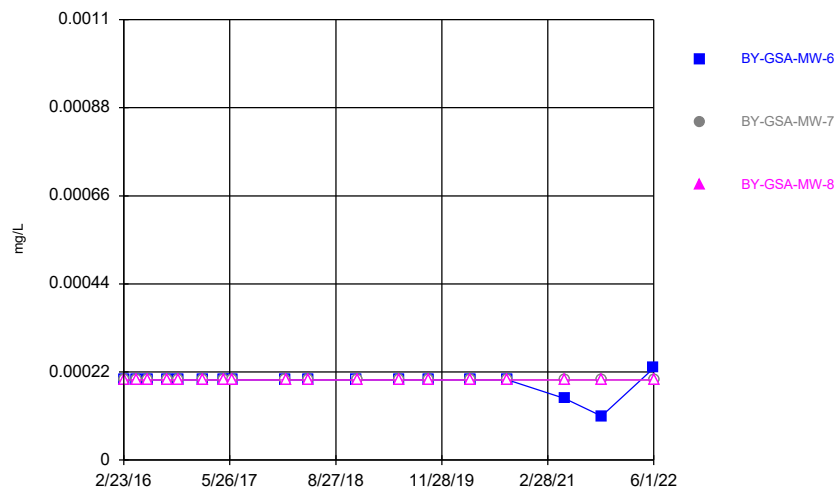
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Time Series



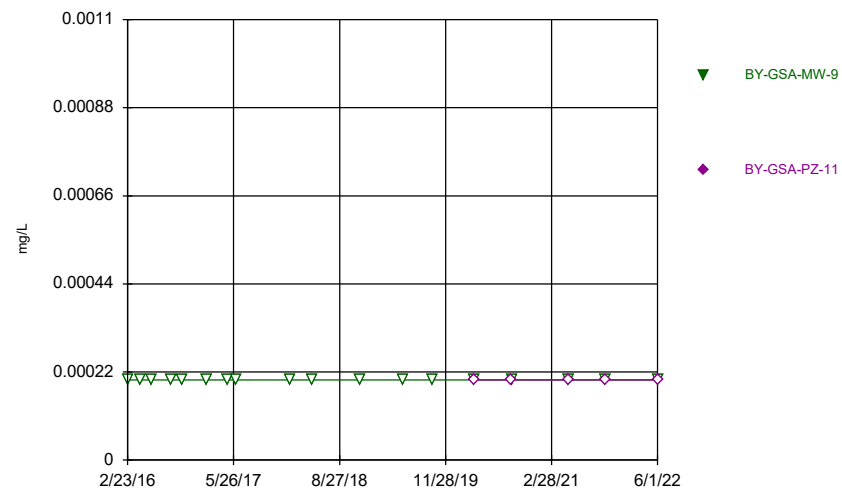
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Time Series



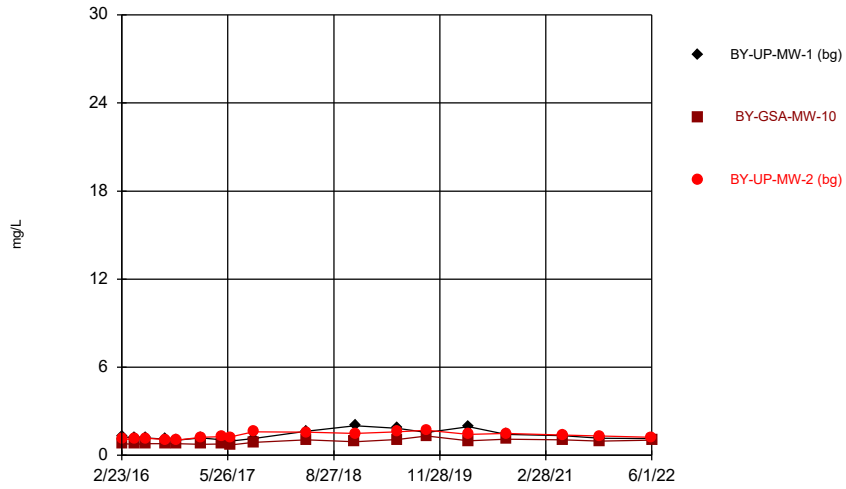
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Time Series



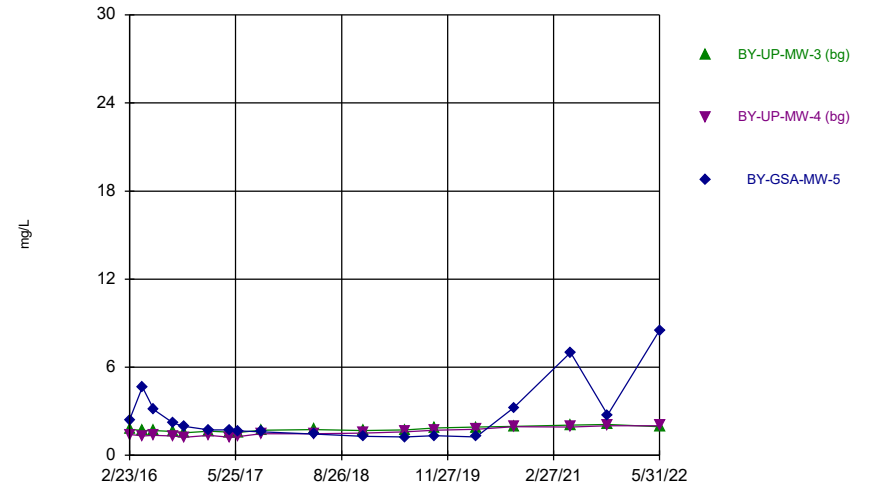
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Time Series



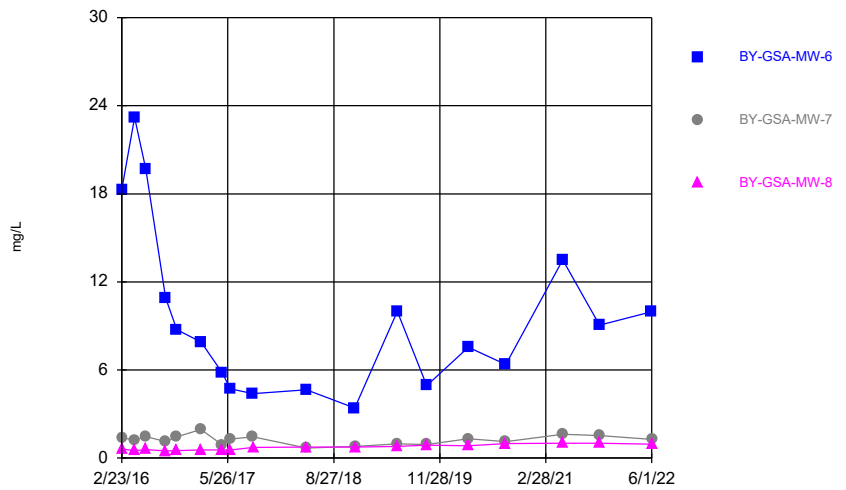
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Time Series



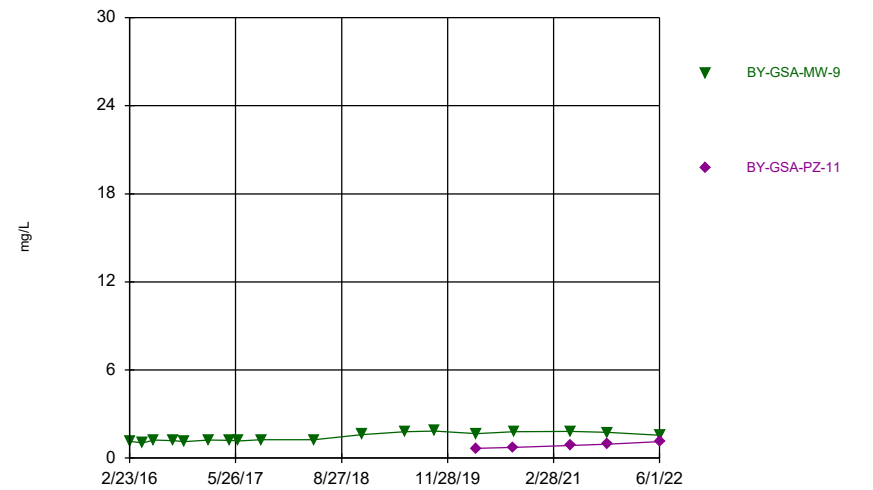
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Time Series



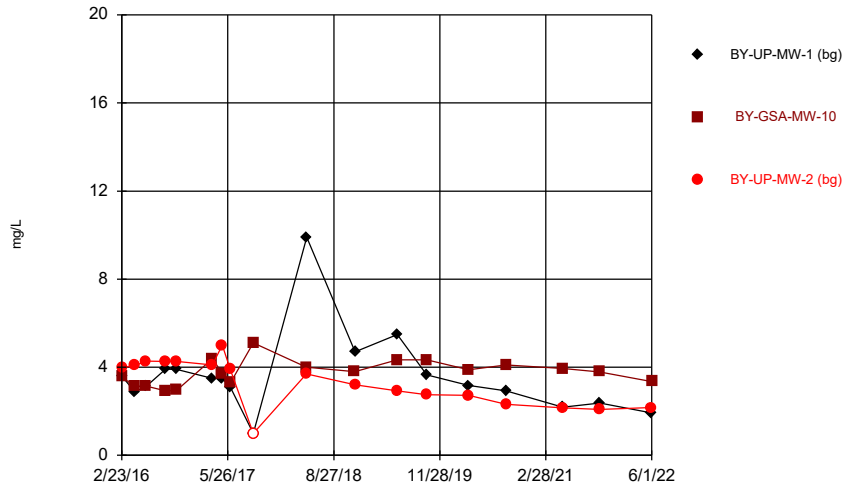
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Time Series



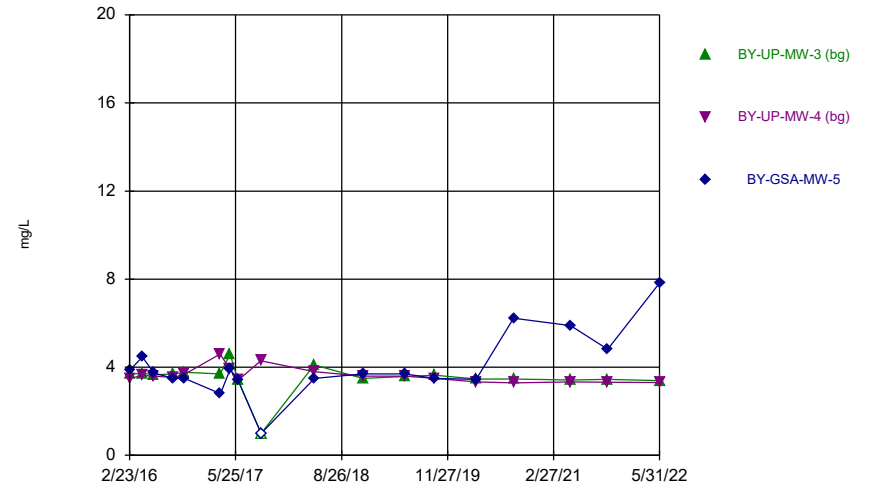
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Time Series



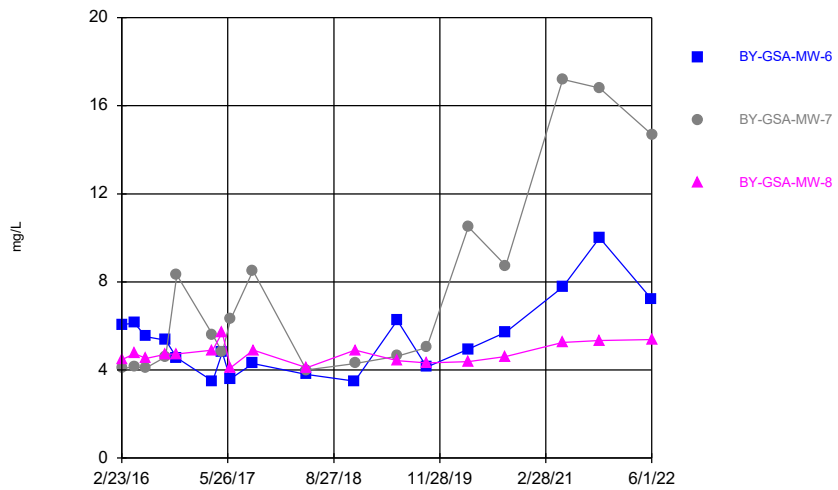
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



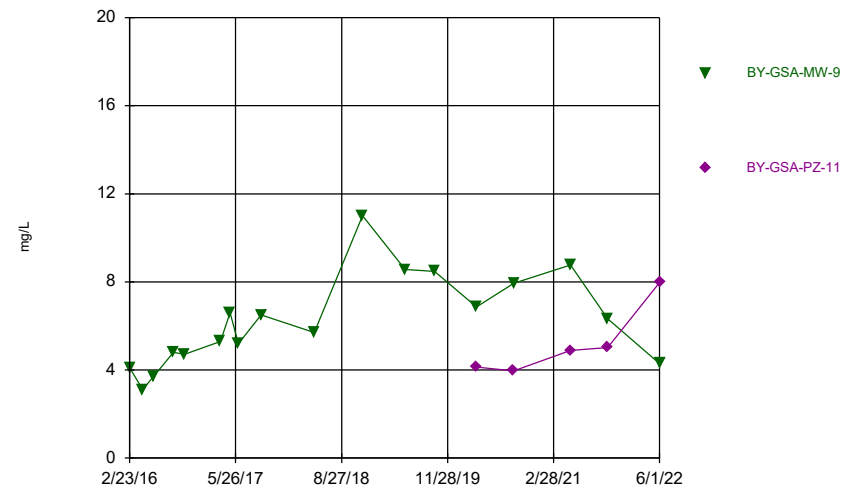
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Time Series



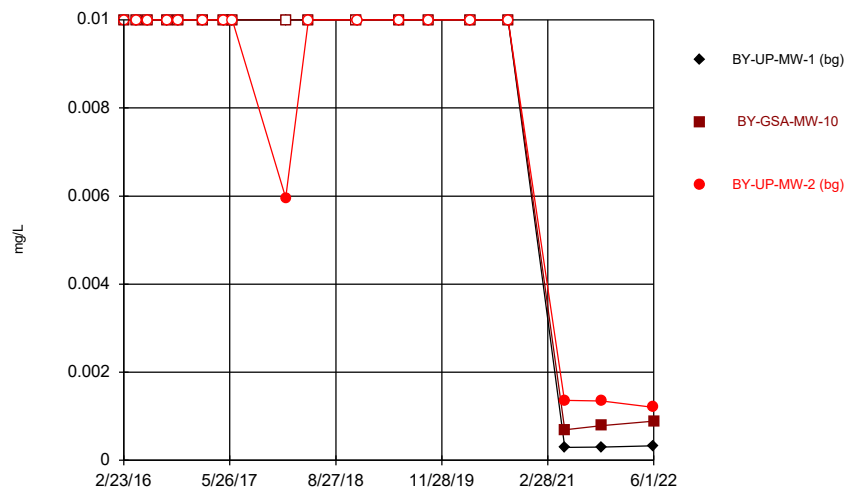
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Time Series



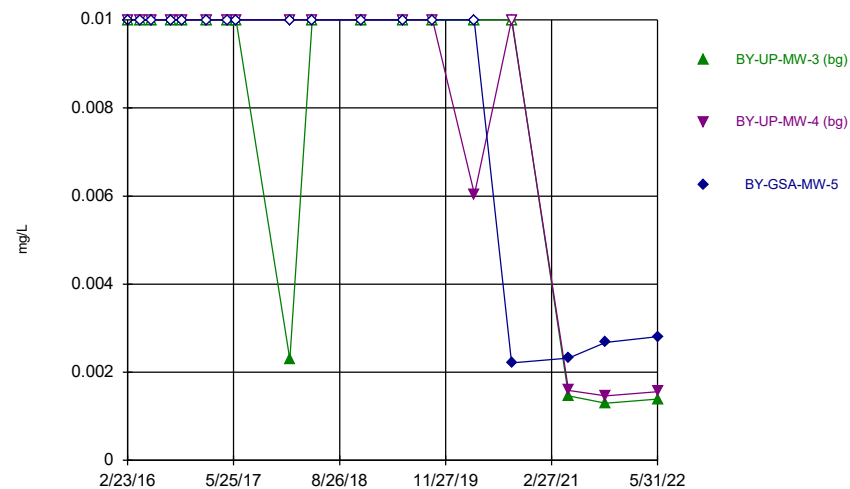
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Time Series



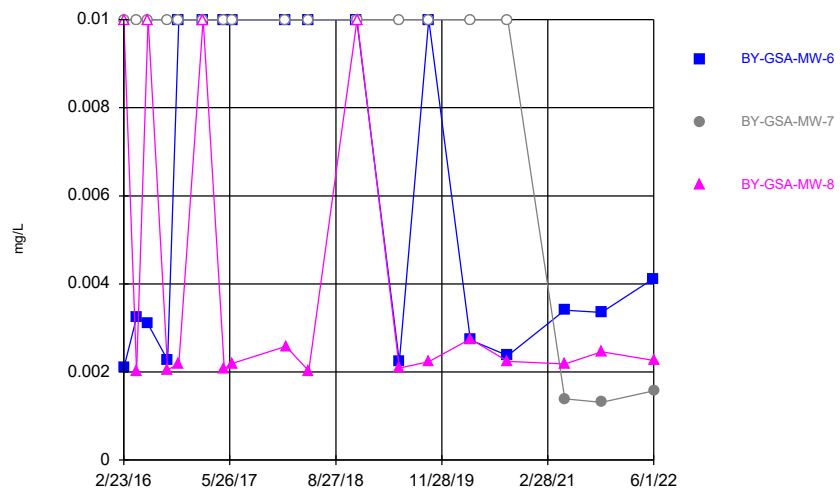
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



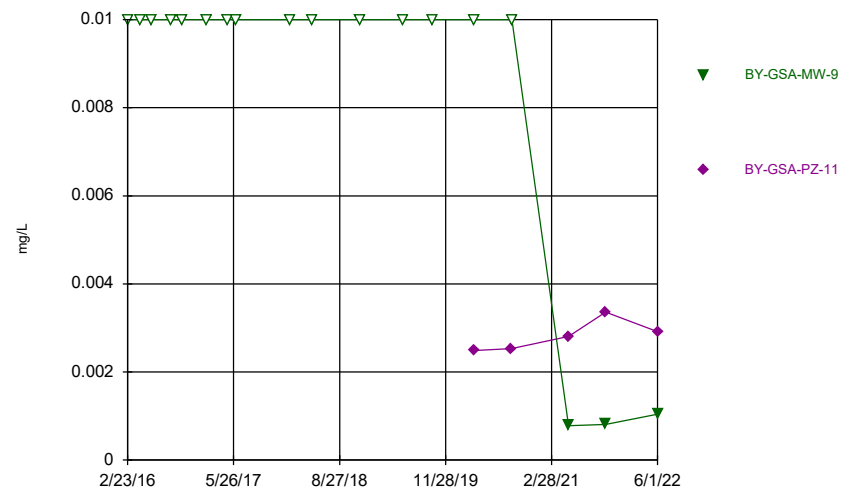
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



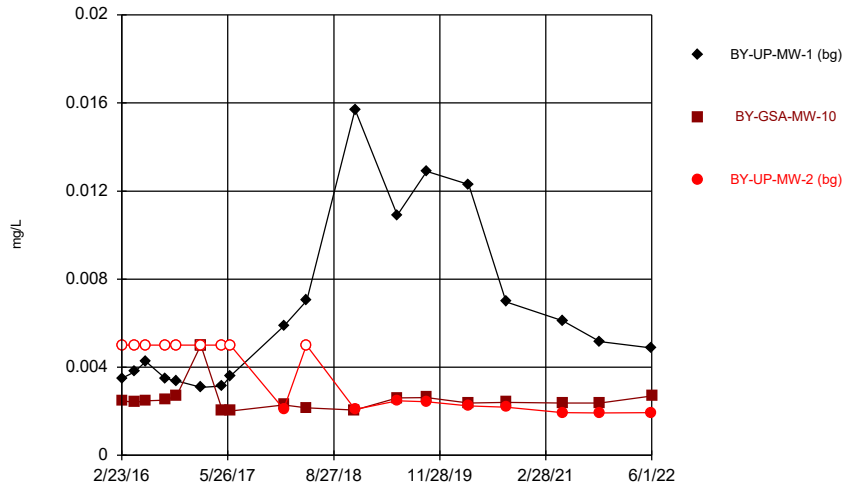
Constituent: Chromium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



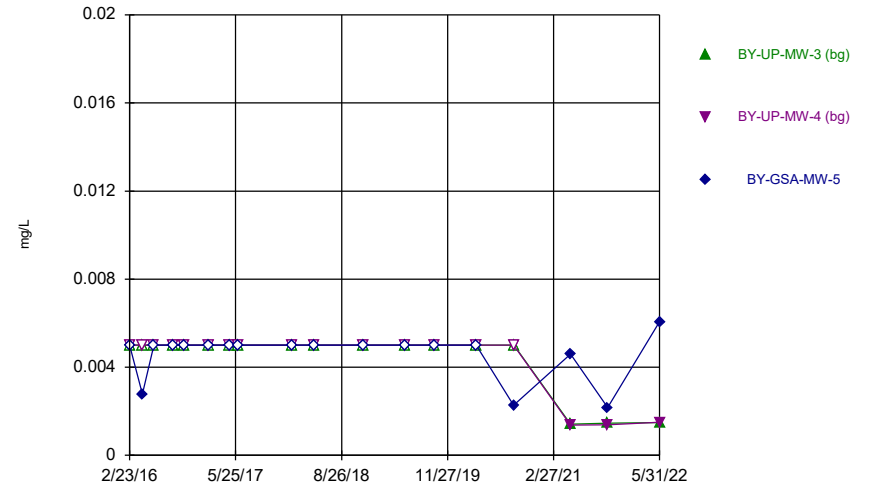
Constituent: Chromium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



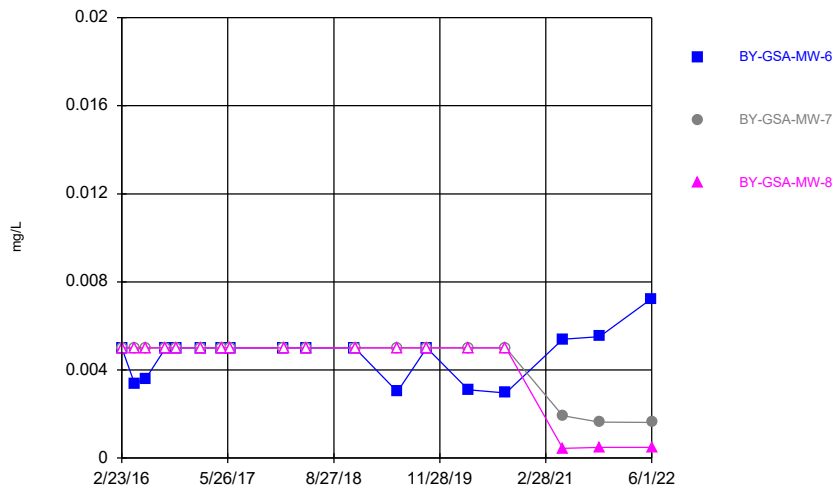
Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



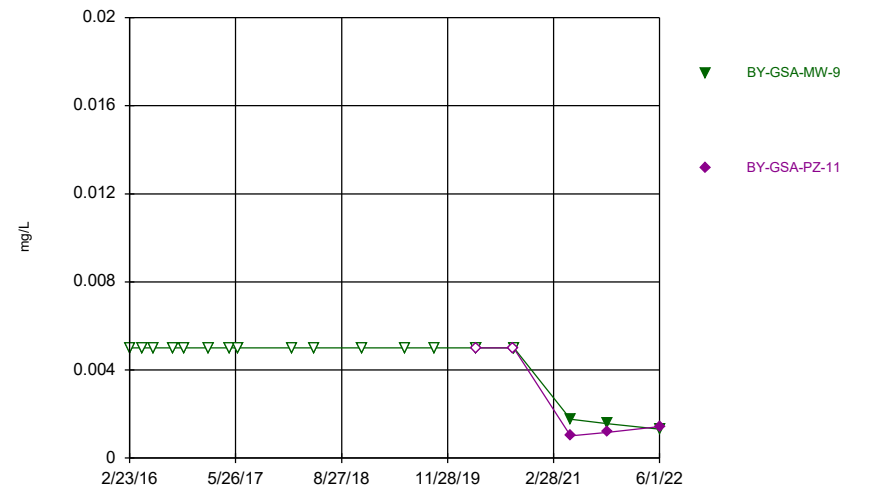
Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



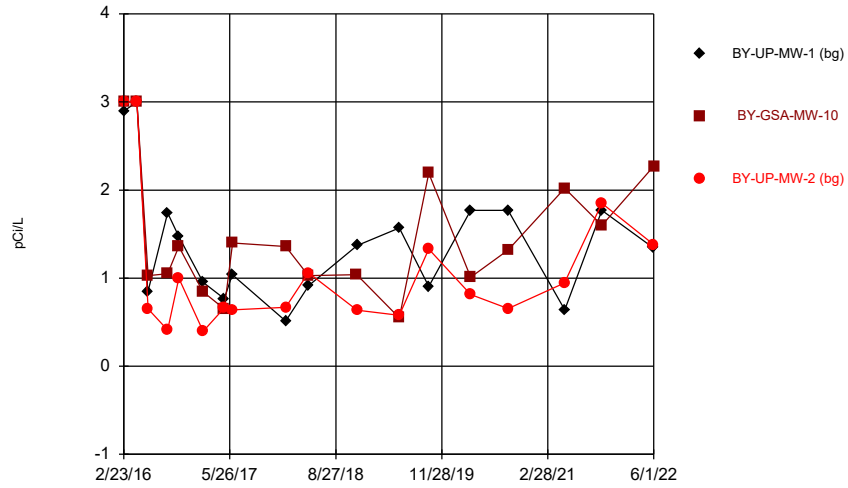
Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



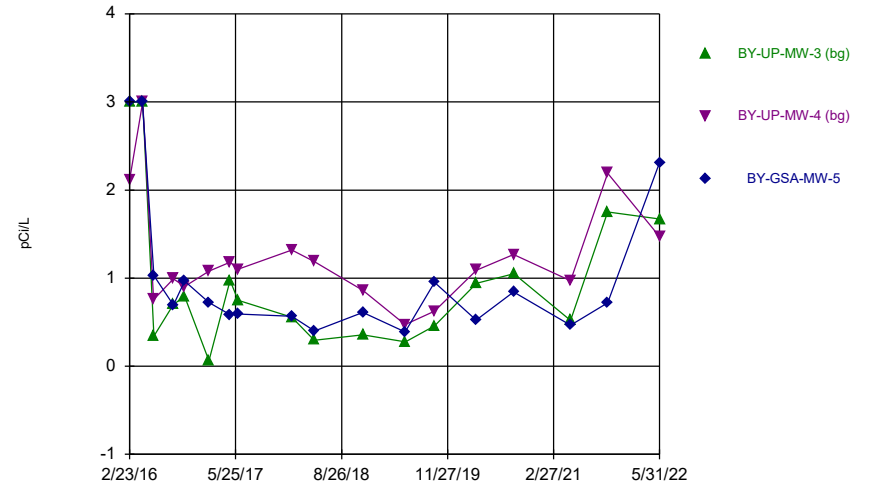
Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



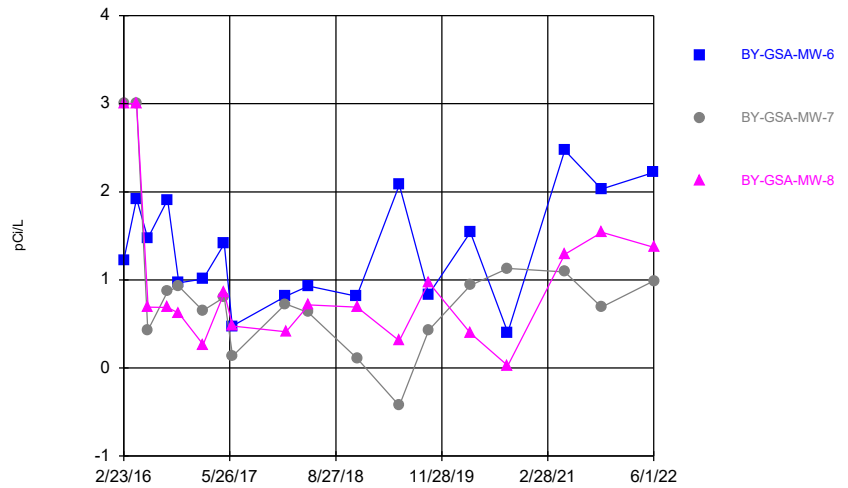
Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



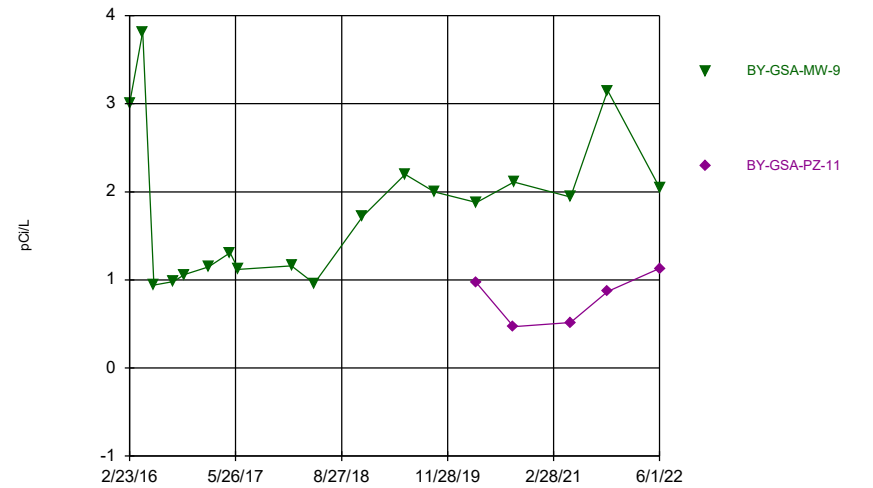
Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



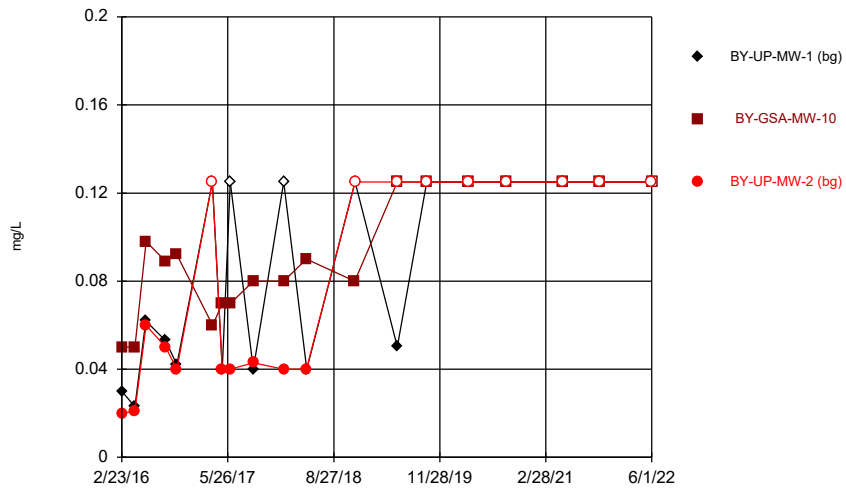
Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



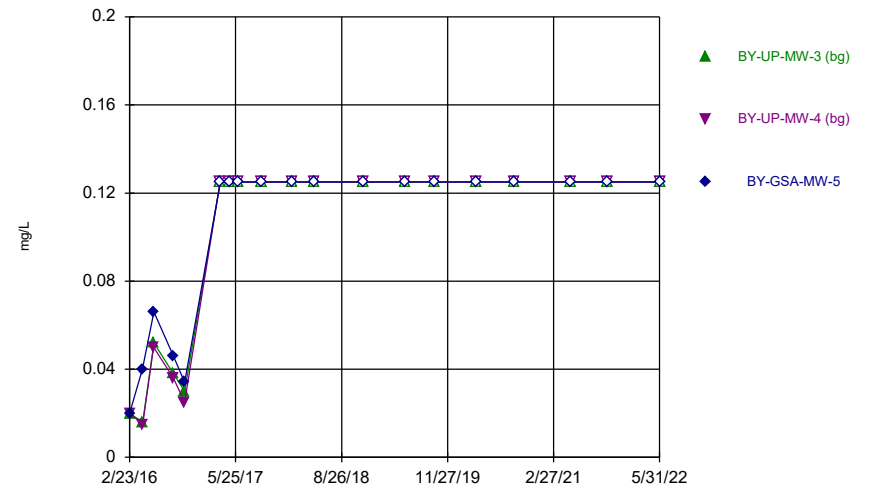
Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



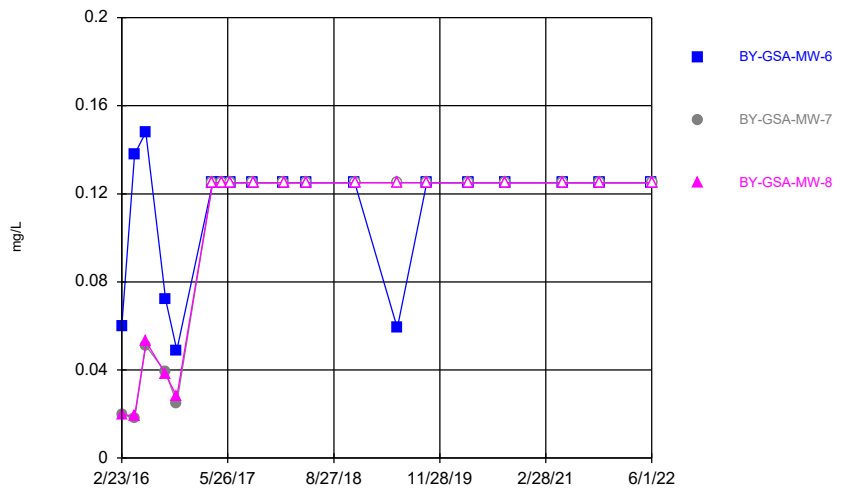
Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



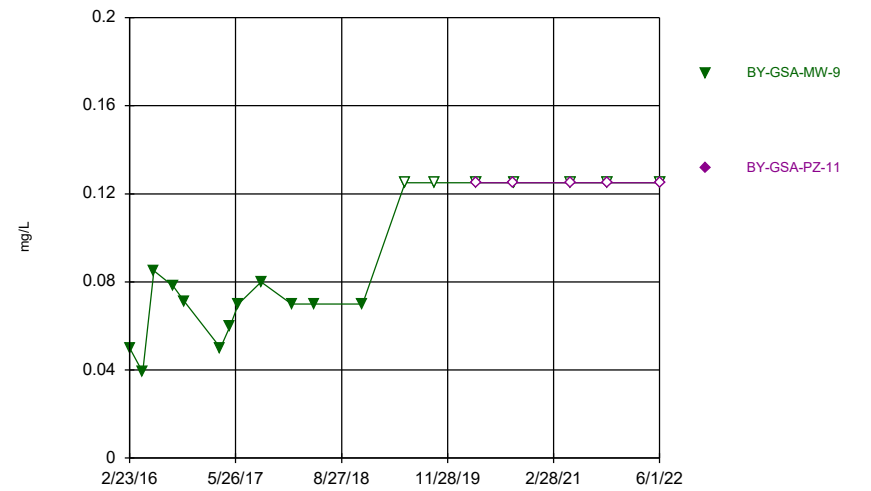
Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



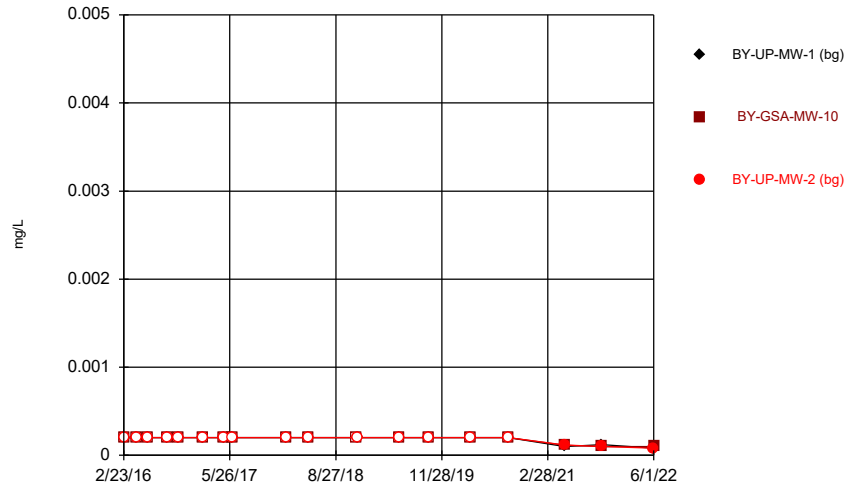
Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



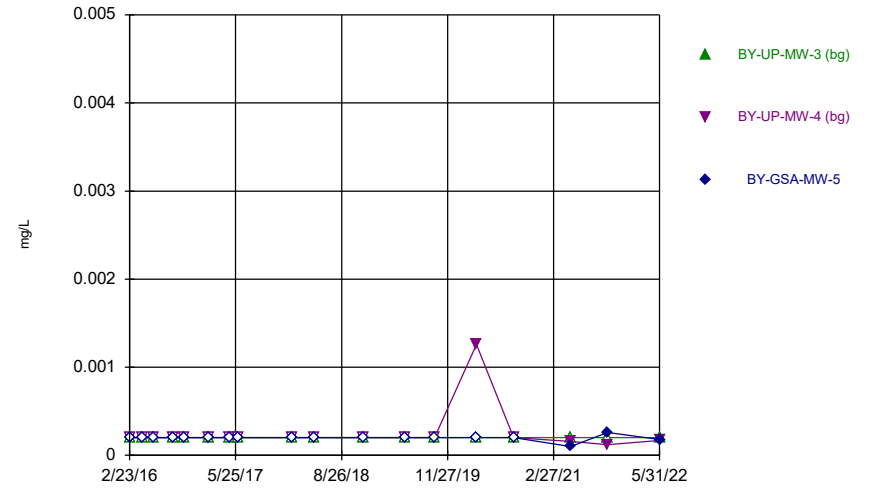
Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



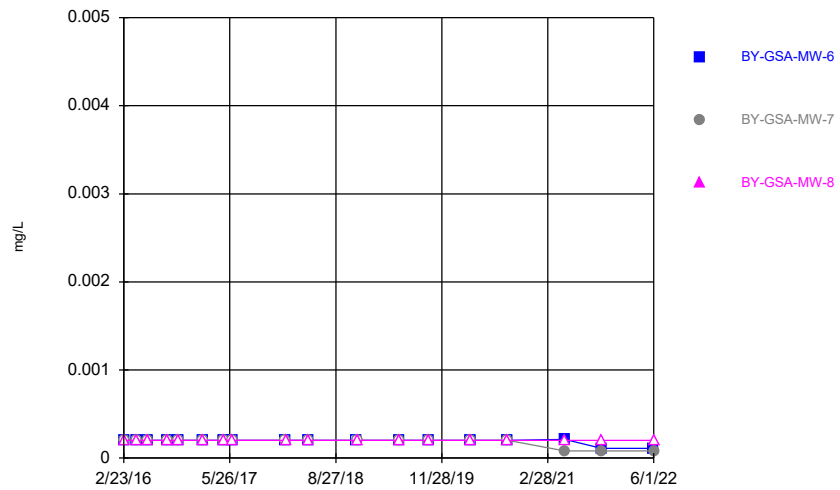
Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



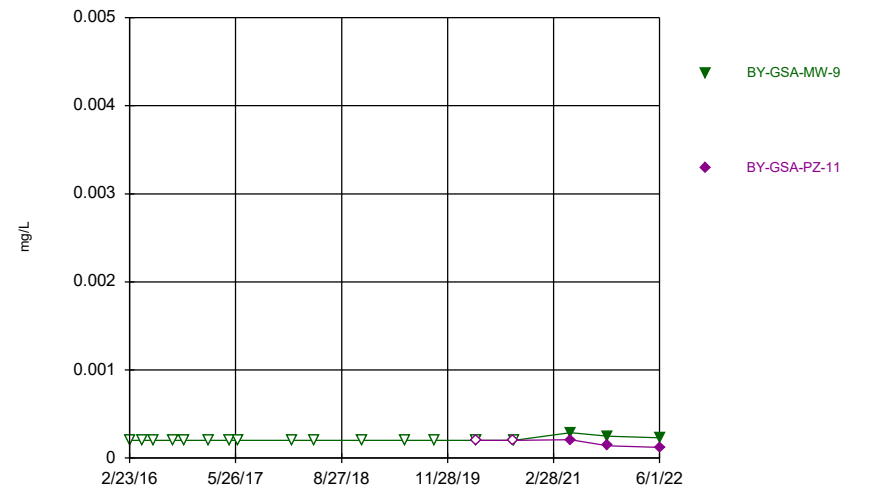
Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



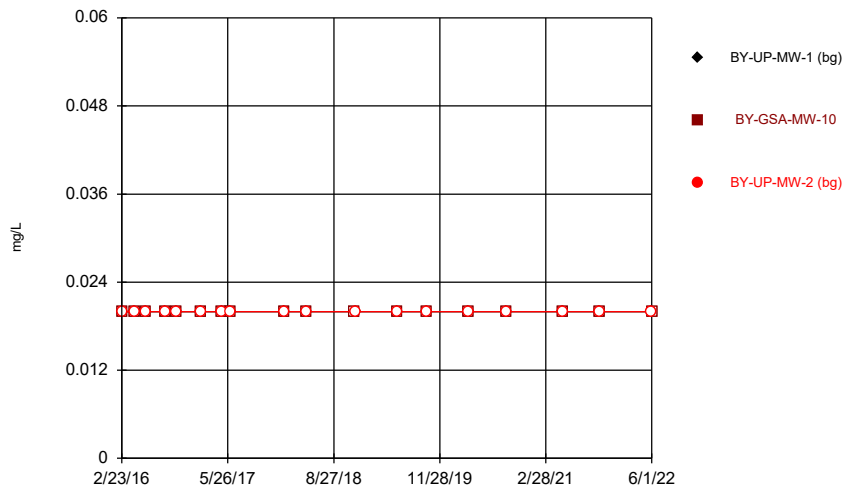
Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



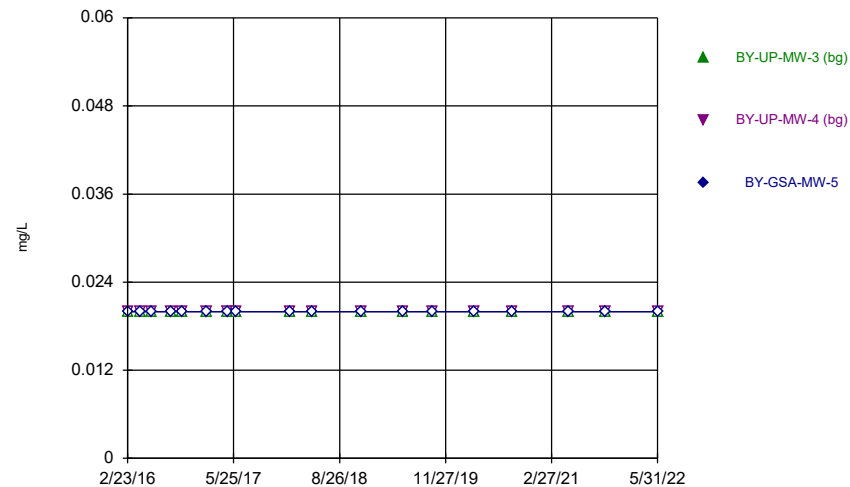
Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



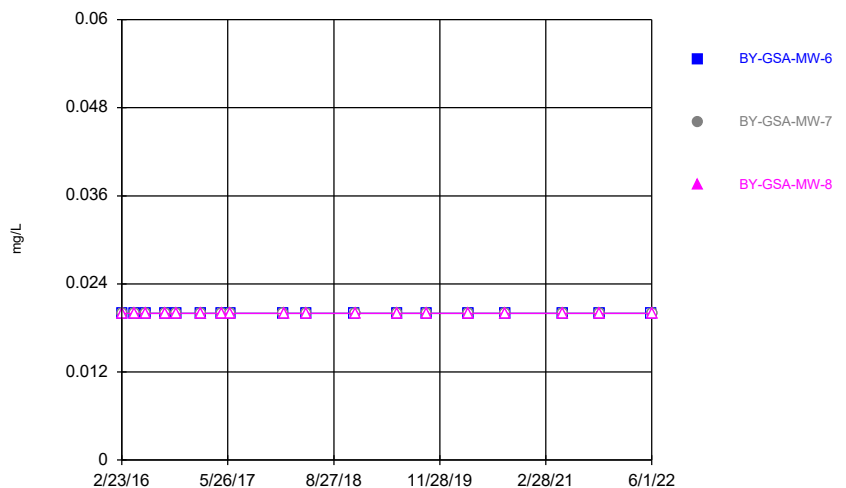
Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



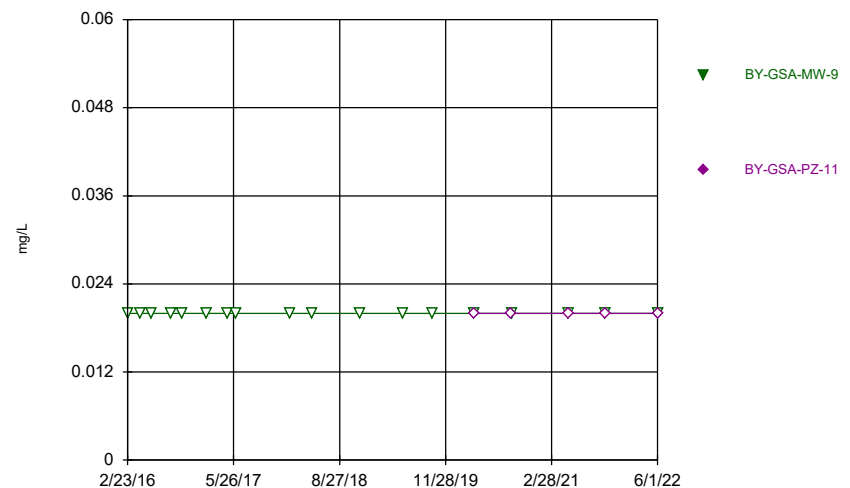
Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



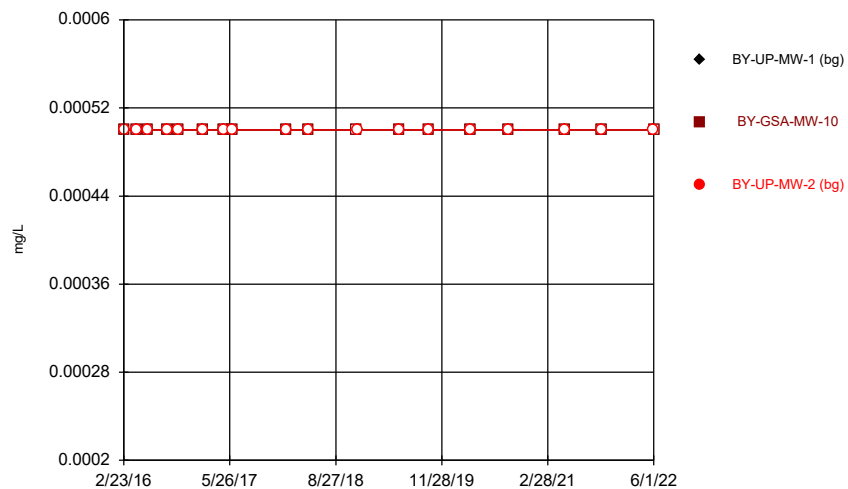
Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



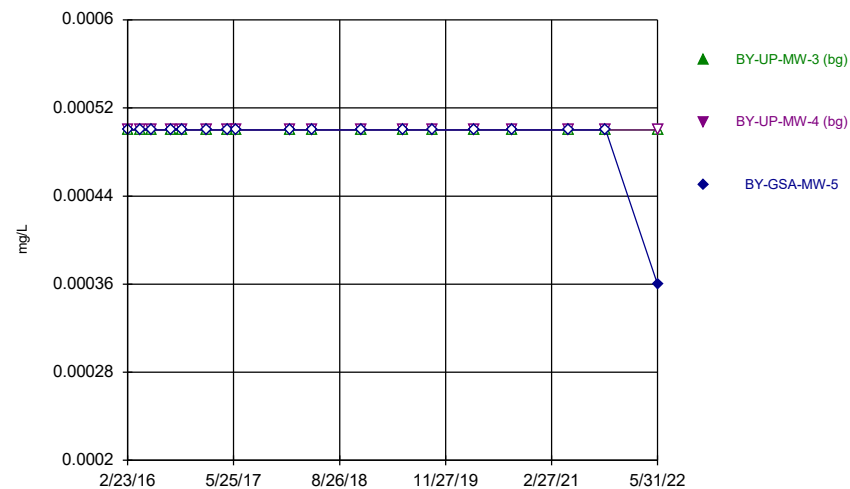
Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



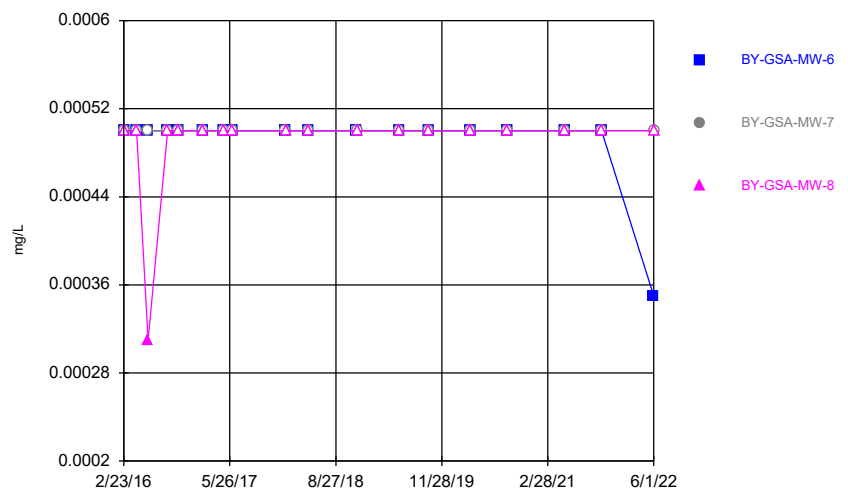
Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



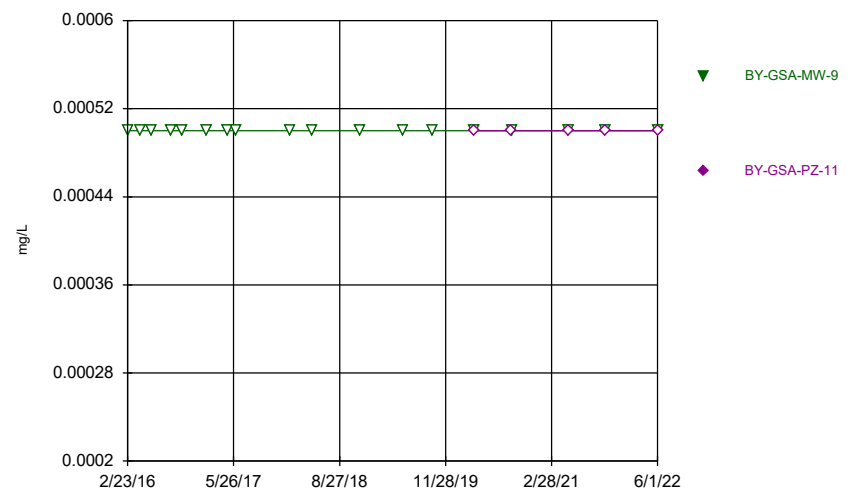
Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



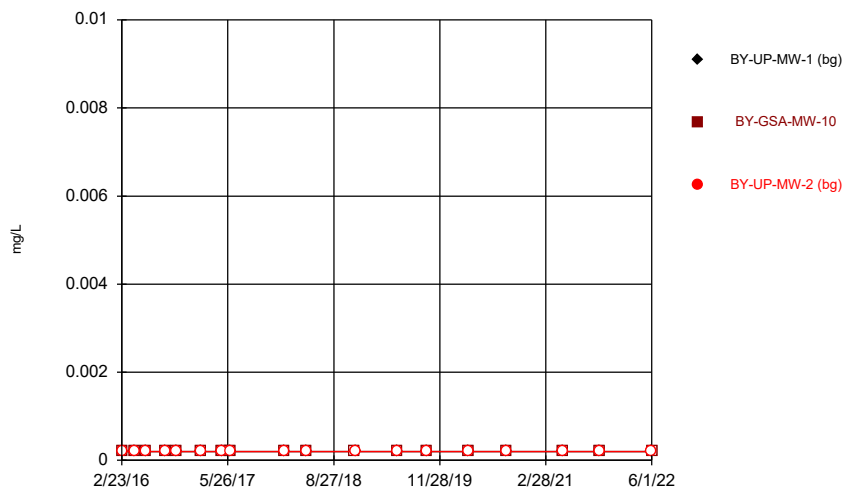
Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



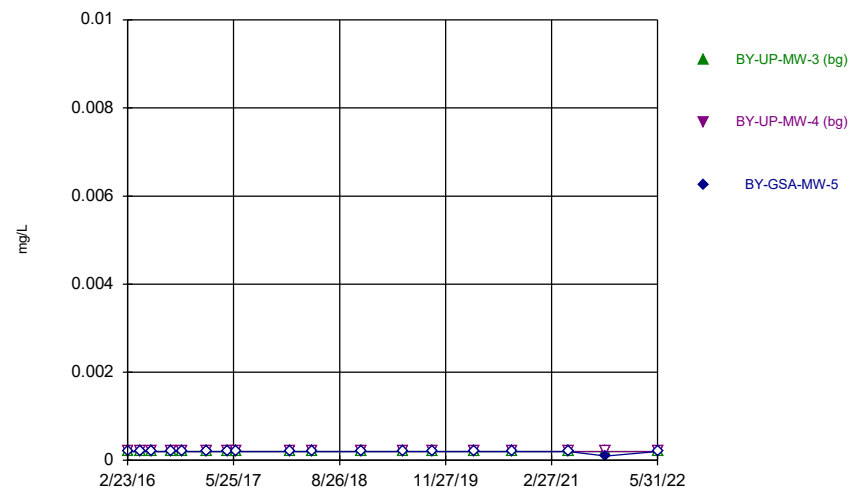
Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



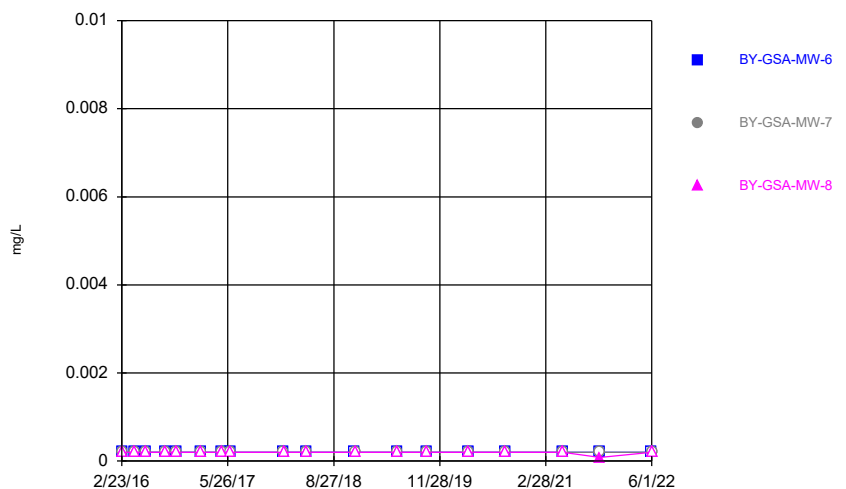
Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



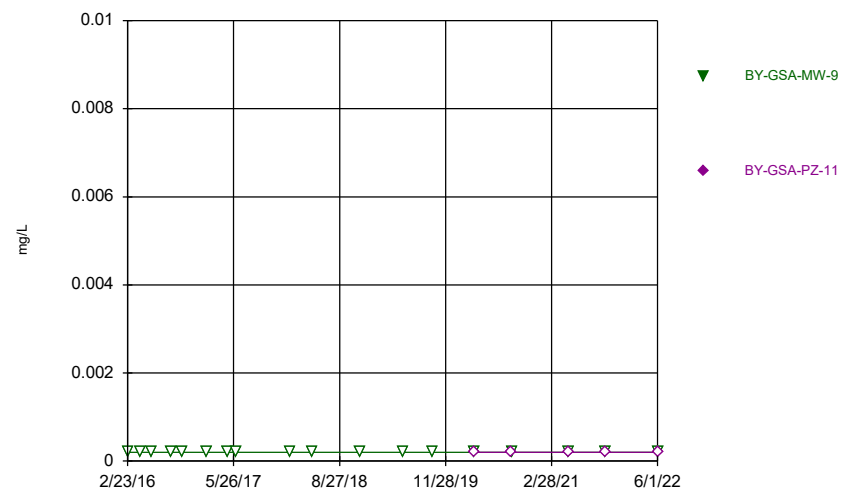
Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



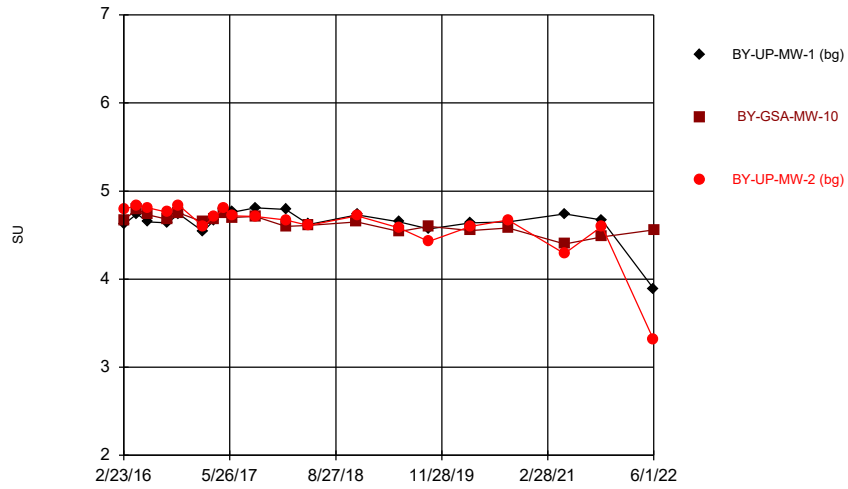
Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



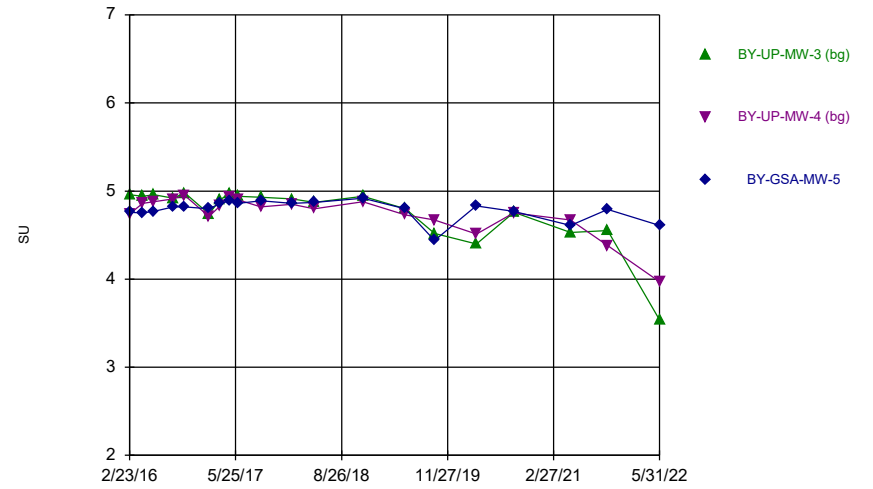
Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



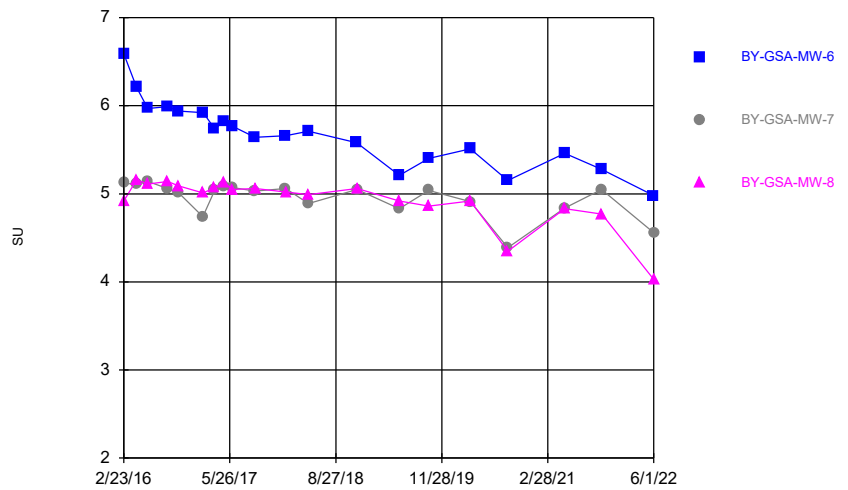
Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



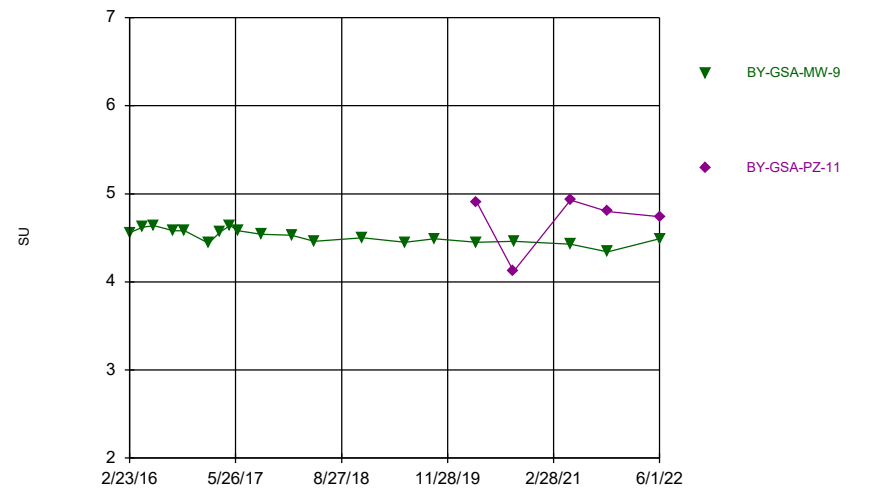
Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



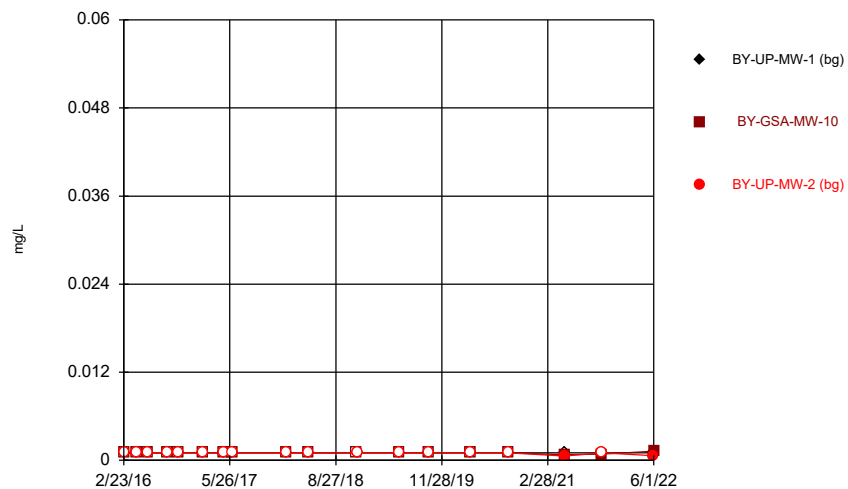
Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



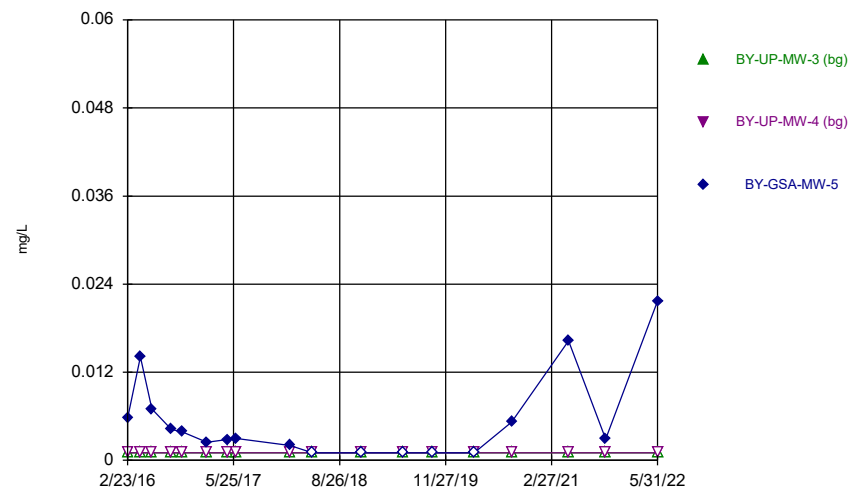
Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



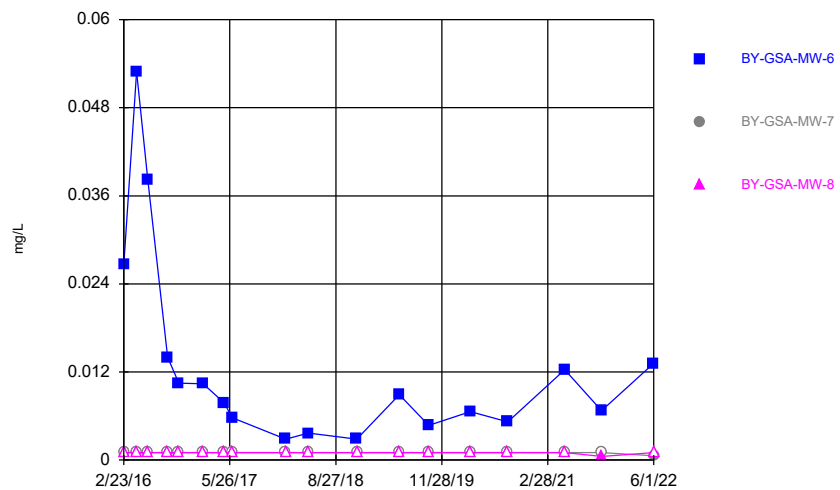
Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



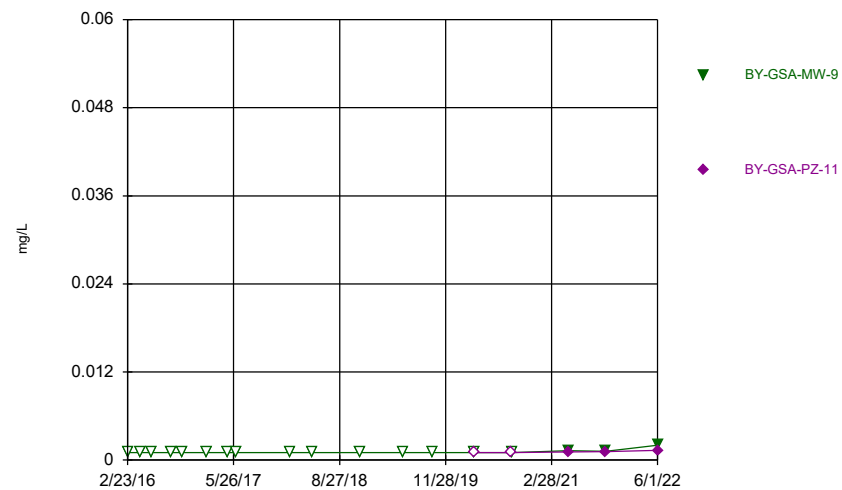
Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



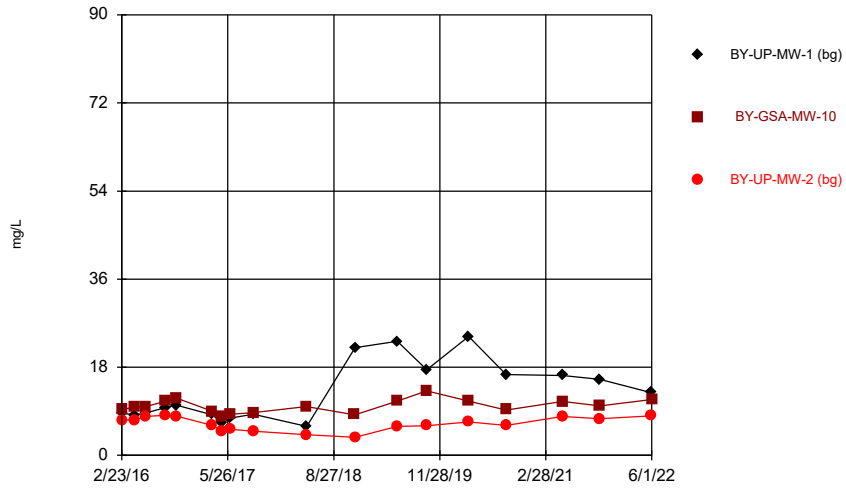
Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



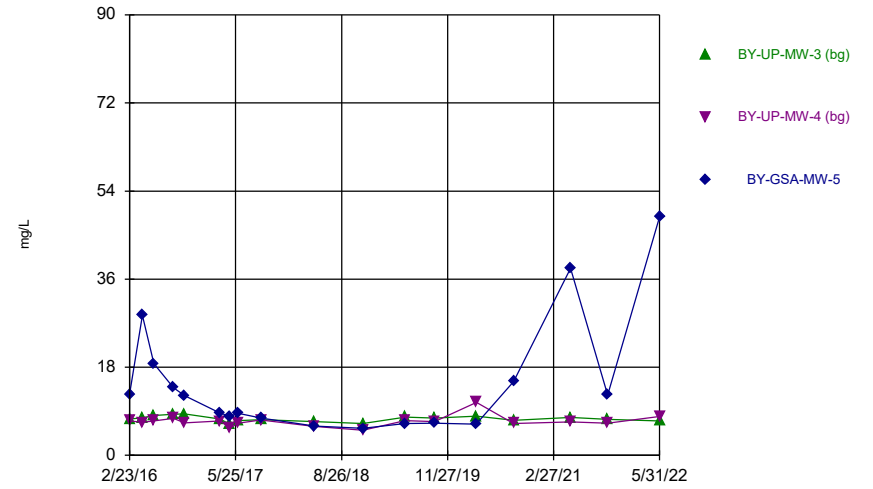
Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



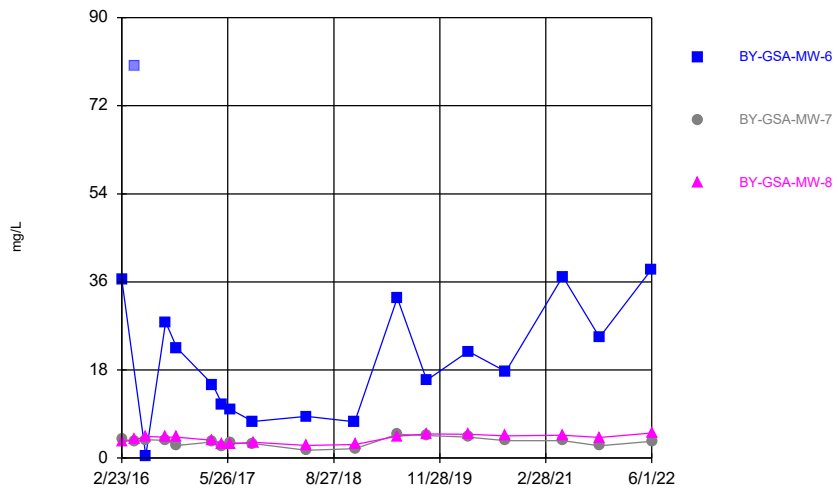
Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



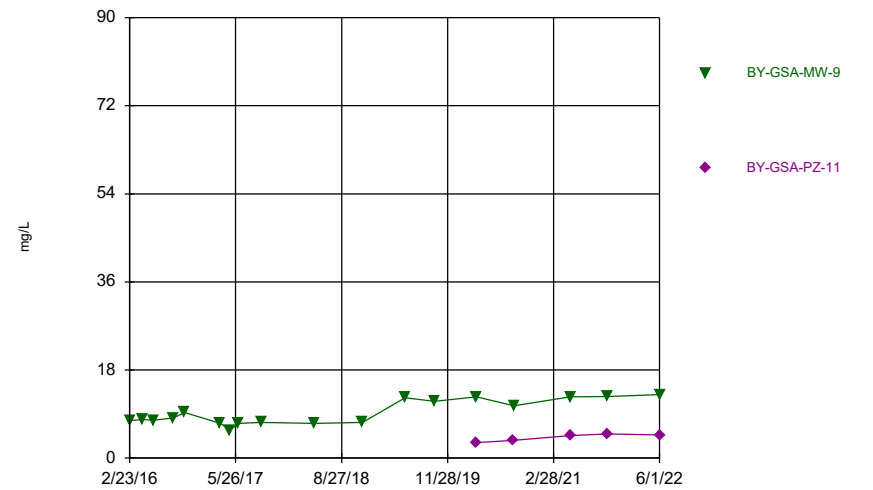
Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



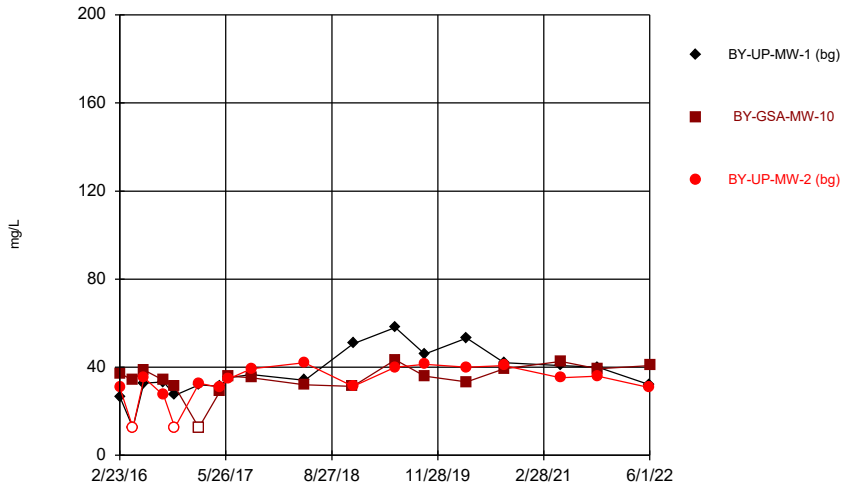
Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



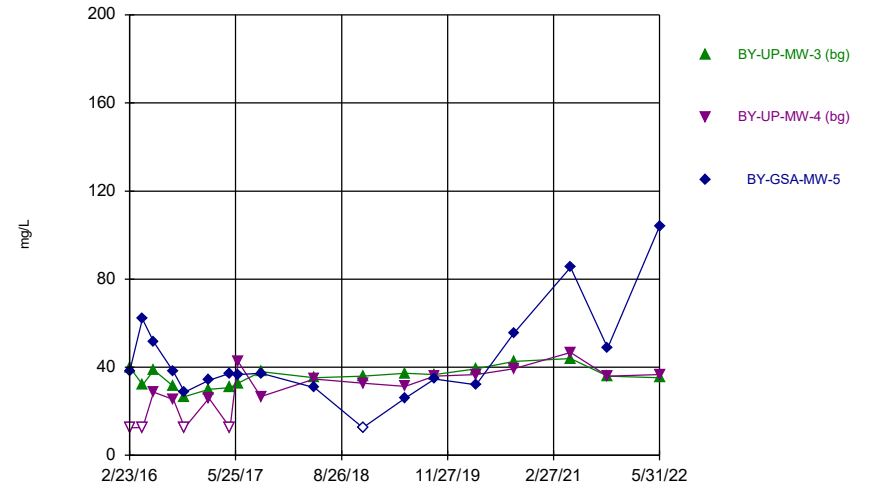
Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



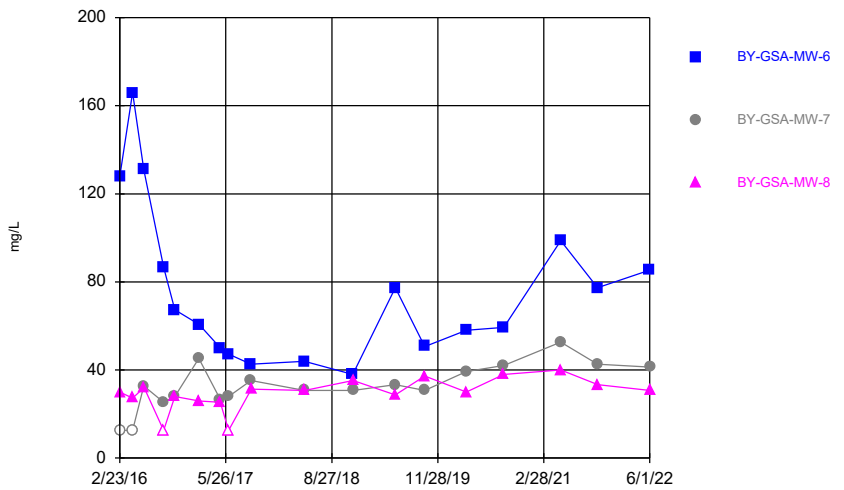
Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



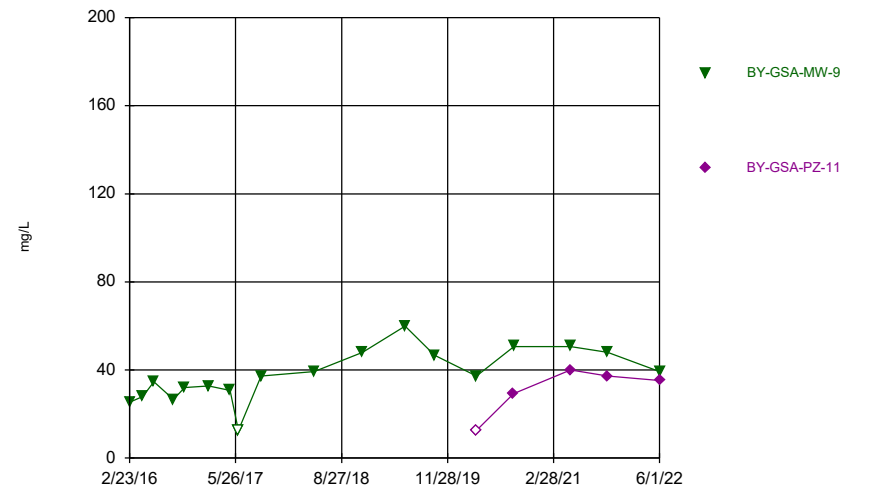
Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



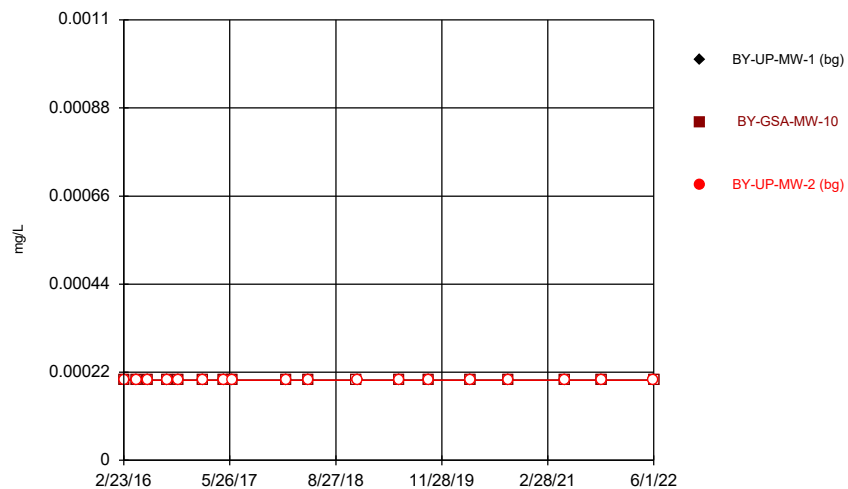
Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



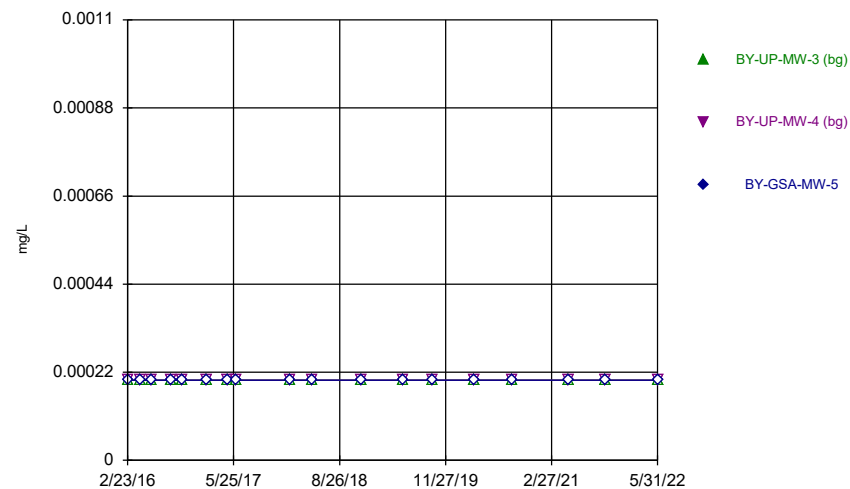
Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



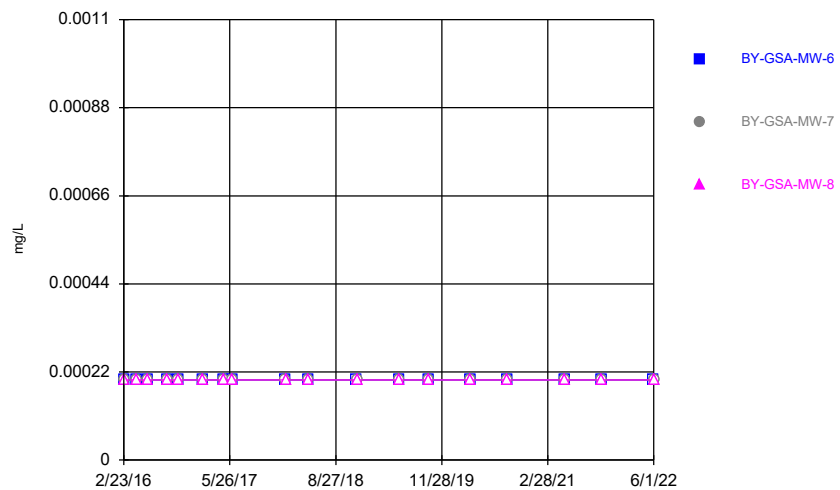
Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



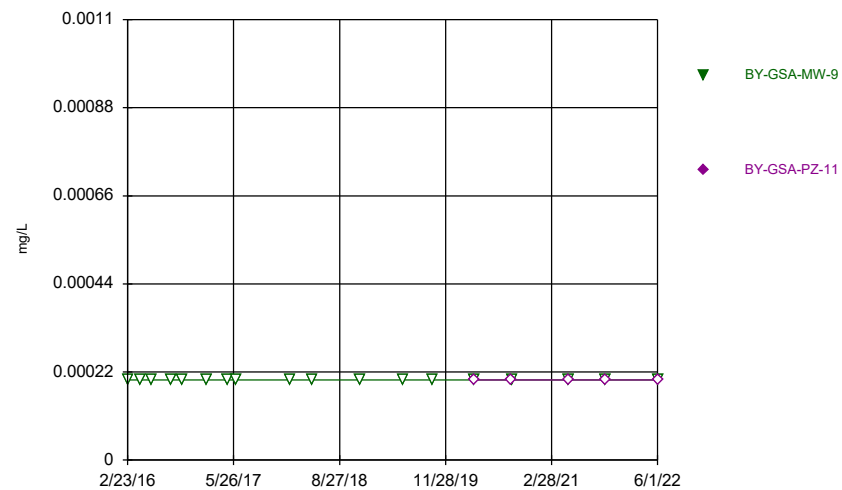
Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.00102	<0.00102	<0.00102
4/19/2016	<0.00102	<0.00102	<0.00102
6/6/2016	<0.00102		
6/7/2016		<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		0.000838 (J)	
1/31/2017	0.000925 (J)		0.000898 (J)
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102		<0.00102
6/7/2017		<0.00102	
1/23/2018	<0.00102	<0.00102	<0.00102
5/1/2018		<0.00102	<0.00102
5/2/2018	<0.00102		
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/29/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102
9/9/2020	<0.00102	<0.00102	<0.00102
5/11/2021			<0.00102
5/12/2021	<0.00102	<0.00102	
10/19/2021	<0.00102	<0.00102	<0.00102
5/31/2022	<0.00102		<0.00102
6/1/2022		<0.00102	

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.00102	0.000606 (J)	<0.00102
4/18/2016			<0.00102
4/19/2016	<0.00102	<0.00102	
6/6/2016		<0.00102	
6/7/2016	<0.00102		<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/31/2017	0.000911 (J)	0.000928 (J)	0.000866 (J)
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102	<0.00102	<0.00102
1/23/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019		<0.00102	<0.00102
5/29/2019	<0.00102		
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020			<0.00102
3/31/2020	<0.00102	<0.00102	
9/8/2020		<0.00102	<0.00102
9/9/2020	<0.00102		
5/11/2021	<0.00102	<0.00102	
5/12/2021			<0.00102
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	<0.00102	<0.00102	<0.00102

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.00102	<0.00102	<0.00102
4/18/2016	<0.00102	<0.00102	<0.00102
6/6/2016	0.000633 (J)	<0.00102	
6/7/2016			<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		0.00119 (J)	
1/31/2017	0.000926 (J)		0.000885 (J)
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102		
6/7/2017		<0.00102	<0.00102
1/22/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018	<0.00102		
11/27/2018		<0.00102	<0.00102
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	<0.00102	<0.00102	<0.00102
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	<0.00102		
6/1/2022		<0.00102	<0.00102

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.00102	
4/19/2016	<0.00102	
6/7/2016	<0.00102	
8/30/2016	<0.00102	
10/18/2016	<0.00102	
1/30/2017	0.000859 (J)	
5/2/2017	<0.00102	
6/7/2017	<0.00102	
1/23/2018	<0.00102	
5/1/2018	<0.00102	
11/26/2018	<0.00102	
5/29/2019	<0.00102	
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
9/8/2020		<0.00102
9/9/2020	<0.00102	
5/12/2021	<0.00102	<0.00102
10/19/2021	<0.00102	<0.00102
6/1/2022	<0.00102	<0.00102

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			0.000136 (J)
5/12/2021	0.000336	0.000129 (J)	
10/19/2021	0.00035	0.00013 (J)	0.00012 (J)
5/31/2022	0.00024		9E-05 (J)
6/1/2022		9E-05 (J)	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	0.0017 (J)	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	0.000217	
5/12/2021			0.000501
10/18/2021	9E-05 (J)	0.00019 (J)	
10/19/2021			0.0002 (J)
5/31/2022	<0.0002	0.0002	0.00053

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	0.000821	0.000177 (J)	<0.0002
10/18/2021	0.00032	0.00023	
10/19/2021			0.00016 (J)
5/31/2022	0.00052		
6/1/2022		0.00024	<0.0002

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	0.000173 (J)	0.000111 (J)
10/19/2021	<0.0002	0.00013 (J)
6/1/2022	0.0001 (J)	<0.0002

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.117	0.134	0.111
4/19/2016	0.099	0.114	0.0875
6/6/2016	0.107		
6/7/2016		0.118	0.0979
8/30/2016	0.106	0.126	0.108
10/18/2016	0.102	0.127	0.103
1/30/2017		0.1	
1/31/2017	0.0944		0.109
5/2/2017	0.0868	0.114	0.125
6/6/2017	0.0799		0.108
6/7/2017		0.0991	
1/23/2018	0.0884	0.119	0.153
5/1/2018		0.132	0.167
5/2/2018	0.137		
11/26/2018		0.112	
11/27/2018	0.157		0.158
5/29/2019	0.166	0.125	0.172
10/2/2019	0.129	0.136	0.183
3/31/2020	0.176	0.122	0.171
9/9/2020	0.124	0.125	0.172
5/11/2021			0.165
5/12/2021	0.123	0.121	
10/19/2021	0.103	0.115	0.145
5/31/2022	0.1		0.153
6/1/2022		0.136	

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	0.0862	0.0973	0.109
4/18/2016			0.135
4/19/2016	0.0718	0.0802	
6/6/2016		0.0862	
6/7/2016	0.0754		0.0892
8/30/2016	0.0768	0.0841	0.083
10/18/2016	0.0727	0.0715	0.0859
1/31/2017	0.0698	0.0825	0.0779
5/2/2017	0.0723	0.0777	0.0799
6/6/2017	0.07	0.078	0.0788
1/23/2018	0.0747	0.0825	
1/24/2018			0.0746
5/1/2018	0.0877	0.102	
5/2/2018			0.085
11/26/2018		0.0994	
11/27/2018	0.0804		0.072
5/28/2019		0.102	0.0684
5/29/2019	0.0831		
10/2/2019	0.089	0.111	0.0728
3/30/2020			0.0718
3/31/2020	0.0927	0.129	
9/8/2020		0.125	0.181
9/9/2020	0.0919		
5/11/2021	0.0981	0.125	
5/12/2021			0.106
10/18/2021	0.0935	0.124	
10/19/2021			0.0998
5/31/2022	0.0992	0.129	0.226

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.237	0.0546	0.0352
4/18/2016	0.263	0.0421	0.0251
6/6/2016	0.206	0.0457	
6/7/2016			0.0299
8/30/2016	0.165	0.0469	0.0287
10/18/2016	0.148	0.0611	0.0309
1/30/2017		0.0801	
1/31/2017	0.123		0.0282
5/2/2017	0.098	0.0388	0.0309
6/6/2017	0.0844		
6/7/2017		0.0437	0.0287
1/22/2018	0.0593	0.0399	
1/24/2018			0.0351
5/1/2018	0.081	0.04	
5/2/2018			0.0398
11/26/2018	0.0657		
11/27/2018		0.0427	0.0388
5/28/2019	0.17	0.0524	0.0412
10/2/2019	0.0985	0.0492	0.0453
3/30/2020	0.142	0.0788	0.0444
9/8/2020	0.0981	0.0615	0.0494
5/12/2021	0.159	0.1	0.0488
10/18/2021	0.146	0.0859	
10/19/2021			0.0452
5/31/2022	0.202		
6/1/2022		0.0803	0.0477

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	0.121	
4/19/2016	0.0926	
6/7/2016	0.0998	
8/30/2016	0.106	
10/18/2016	0.106	
1/30/2017	0.111	
5/2/2017	0.111	
6/7/2017	0.107	
1/23/2018	0.122	
5/1/2018	0.139	
11/26/2018	0.152	
5/29/2019	0.155	
10/2/2019	0.16	
3/31/2020	0.165	0.0499
9/8/2020		0.05
9/9/2020	0.17	
5/12/2021	0.184	0.0597
10/19/2021	0.151	0.0599
6/1/2022	0.142	0.0821

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.00102	<0.00102	<0.00102
4/19/2016	<0.00102	<0.00102	<0.00102
6/6/2016	0.000612 (J)		
6/7/2016		<0.00102	0.00093 (J)
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	<0.00102		<0.00102
5/2/2017	0.00069 (J)	<0.00102	<0.00102
6/6/2017	<0.00102		<0.00102
6/7/2017		<0.00102	
1/23/2018	<0.00102	<0.00102	<0.00102
5/1/2018		<0.00102	<0.00102
5/2/2018	<0.00102		
11/26/2018		<0.00102	
11/27/2018	0.000856 (J)		0.000801 (J)
5/29/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102
9/9/2020	<0.00102	<0.00102	<0.00102
5/11/2021			<0.00102
5/12/2021	0.000694 (J)	<0.00102	
10/19/2021	<0.00102	<0.00102	<0.00102
5/31/2022	<0.00102		0.00041 (J)
6/1/2022		<0.00102	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.00102	<0.00102	<0.00102
4/18/2016			<0.00102
4/19/2016	<0.00102	<0.00102	
6/6/2016		<0.00102	
6/7/2016	<0.00102		<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/31/2017	<0.00102	<0.00102	<0.00102
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102	<0.00102	<0.00102
1/23/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019		<0.00102	<0.00102
5/29/2019	<0.00102		
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020			<0.00102
3/31/2020	<0.00102	<0.00102	
9/8/2020		<0.00102	<0.00102
9/9/2020	<0.00102		
5/11/2021	<0.00102	<0.00102	
5/12/2021			0.000575 (J)
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	<0.00102	<0.00102	0.00071 (J)

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.00102	<0.00102	<0.00102
4/18/2016	0.000681 (J)	<0.00102	<0.00102
6/6/2016	<0.00102	<0.00102	
6/7/2016			<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	<0.00102		<0.00102
5/2/2017	0.000704 (J)	<0.00102	<0.00102
6/6/2017	<0.00102		
6/7/2017		<0.00102	<0.00102
1/22/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018	<0.00102		
11/27/2018		<0.00102	<0.00102
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	0.000763 (J)	0.000464 (J)	<0.00102
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	0.00066 (J)		
6/1/2022		<0.00102	<0.00102

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.00102	
4/19/2016	<0.00102	
6/7/2016	<0.00102	
8/30/2016	<0.00102	
10/18/2016	<0.00102	
1/30/2017	<0.00102	
5/2/2017	<0.00102	
6/7/2017	<0.00102	
1/23/2018	<0.00102	
5/1/2018	<0.00102	
11/26/2018	<0.00102	
5/29/2019	<0.00102	
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
9/8/2020		<0.00102
9/9/2020	<0.00102	
5/12/2021	<0.00102	<0.00102
10/19/2021	<0.00102	<0.00102
6/1/2022	<0.00102	<0.00102

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.0212 (J)	0.0294 (J)	0.0252 (J)
4/19/2016	<0.1015	0.0257 (J)	<0.1015
6/6/2016	<0.1015		
6/7/2016		0.0257 (J)	0.0202 (J)
8/30/2016	<0.1015	0.0317 (J)	<0.1015
10/18/2016	<0.1015	<0.1015	<0.1015
1/30/2017		0.0243 (J)	
1/31/2017	<0.1015		<0.1015
5/2/2017	<0.1015	0.0259 (J)	<0.1015
6/6/2017	<0.1015		<0.1015
6/7/2017		<0.1015	
9/13/2017	<0.1015	0.0394 (J)	<0.1015
5/1/2018		0.0338 (J)	<0.1015
5/2/2018	0.0362 (J)		
11/26/2018		0.0484 (J)	
11/27/2018	0.11		0.0207 (J)
5/29/2019	0.188	0.0669 (J)	<0.1015
10/2/2019	0.097 (J)	0.0671 (J)	<0.1015
3/31/2020	0.157	0.0442 (J)	<0.1015
9/9/2020	0.0999 (J)	0.0509 (J)	<0.1015
5/11/2021			<0.1015
5/12/2021	0.0841 (J)	0.0423 (J)	
10/19/2021	0.0708 (J)	0.0444 (J)	<0.1015
5/31/2022	0.0567 (J)		<0.1015
6/1/2022		0.0493 (J)	

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.1015	0.0257 (J)	0.163
4/18/2016			0.361
4/19/2016	<0.1015	<0.1015	
6/6/2016		<0.1015	
6/7/2016	<0.1015		0.169
8/30/2016	<0.1015	<0.1015	0.0858 (J)
10/18/2016	<0.1015	0.022 (J)	0.0778 (J)
1/31/2017	<0.1015	<0.1015	0.077 (J)
5/2/2017	<0.1015	<0.1015	0.0602 (J)
6/6/2017	<0.1015	<0.1015	0.0442 (J)
9/12/2017		<0.1015	
9/13/2017	<0.1015		0.0411 (J)
5/1/2018	<0.1015	<0.1015	
5/2/2018			0.0334 (J)
11/26/2018		<0.1015	
11/27/2018	<0.1015		0.0265 (J)
5/28/2019		<0.1015	<0.1015
5/29/2019	<0.1015		
10/2/2019	<0.1015	<0.1015	<0.1015
3/30/2020			<0.1015
3/31/2020	<0.1015	<0.1015	
9/8/2020		<0.1015	0.521
9/9/2020	<0.1015		
5/11/2021	<0.1015	<0.1015	
5/12/2021			0.511
10/18/2021	<0.1015	<0.1015	
10/19/2021			0.243
5/31/2022	<0.1015	<0.1015	0.939

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.638	0.0314 (J)	<0.1015
4/18/2016	0.908	<0.1015	<0.1015
6/6/2016	0.733	<0.1015	
6/7/2016			<0.1015
8/30/2016	0.448	<0.1015	<0.1015
10/18/2016	0.249	<0.1015	0.0207 (J)
1/30/2017		<0.1015	
1/31/2017	0.121		<0.1015
5/2/2017	0.0695 (J)	<0.1015	<0.1015
6/6/2017	0.0509 (J)		
6/7/2017		<0.1015	<0.1015
9/12/2017	0.0709 (J)	<0.1015	
9/13/2017			<0.1015
5/1/2018	0.0365 (J)	<0.1015	
5/2/2018			<0.1015
11/26/2018	0.0836 (J)		
11/27/2018		<0.1015	<0.1015
5/28/2019	0.556	<0.1015	<0.1015
10/2/2019	0.186	<0.1015	<0.1015
3/30/2020	0.304	<0.1015	<0.1015
9/8/2020	0.362	<0.1015	<0.1015
5/12/2021	0.876	<0.1015	<0.1015
10/18/2021	0.987	<0.1015	
10/19/2021			0.0303 (J)
5/31/2022	0.685		
6/1/2022		<0.1015	<0.1015

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	0.0297 (J)	
4/19/2016	0.0269 (J)	
6/7/2016	0.0271 (J)	
8/30/2016	0.0272 (J)	
10/18/2016	<0.1015	
1/30/2017	0.0269 (J)	
5/2/2017	0.027 (J)	
6/7/2017	<0.1015	
9/13/2017	0.032 (J)	
5/1/2018	0.0302 (J)	
11/26/2018	0.139	
5/29/2019	0.141	
10/2/2019	0.116	
3/31/2020	0.112	0.0864 (J)
9/8/2020		0.0638 (J)
9/9/2020	0.0873 (J)	
5/12/2021	0.0834 (J)	0.0742 (J)
10/19/2021	0.0966 (J)	0.0551 (J)
6/1/2022	0.0933 (J)	0.0564 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			<0.0002
5/12/2021	<0.0002	<0.0002	
10/19/2021	<0.0002	<0.0002	<0.0002
5/31/2022	<0.0002		<0.0002
6/1/2022		<0.0002	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	<0.0002	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	<0.0002	
5/12/2021			8.67E-05 (J)
10/18/2021	7E-05 (J)	<0.0002	
10/19/2021			0.00014 (J)
5/31/2022	<0.0002	<0.0002	0.00012 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	0.000154 (J)	<0.0002	<0.0002
10/18/2021	0.00011 (J)	<0.0002	
10/19/2021			<0.0002
5/31/2022	0.00023		
6/1/2022		<0.0002	<0.0002

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002
6/1/2022	<0.0002	<0.0002

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	1.28	0.795	1.11
4/19/2016	1.19	0.761	1.09
6/6/2016	1.19		
6/7/2016		0.799	1.16
8/30/2016	1.11	0.788	1.08
10/18/2016	1.04	0.788	1.03
1/30/2017		0.755	
1/31/2017	1.19		1.23
5/2/2017	1.05	0.763	1.28
6/6/2017	0.978		1.25
6/7/2017		0.706	
9/13/2017	1.14	0.873	1.6
5/1/2018		1.05	1.58
5/2/2018	1.64		
11/26/2018		0.922	
11/27/2018	2.01		1.49
5/29/2019	1.85	1.07	1.59
10/2/2019	1.55	1.32	1.7
3/31/2020	1.96	0.98	1.43
9/9/2020	1.43	1.1	1.5
5/11/2021			1.39
5/12/2021	1.34	1.06	
10/19/2021	1.17	0.977	1.32
5/31/2022	1.14		1.24
6/1/2022		1.04	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	1.77	1.42	2.42
4/18/2016			4.65
4/19/2016	1.68	1.31	
6/6/2016		1.35	
6/7/2016	1.68		3.1
8/30/2016	1.62	1.31	2.19
10/18/2016	1.53	1.22	1.97
1/31/2017	1.65	1.36	1.73
5/2/2017	1.58	1.24	1.74
6/6/2017	1.55	1.28	1.66
9/12/2017		1.47	
9/13/2017	1.71		1.61
5/1/2018	1.76	1.47	
5/2/2018			1.44
11/26/2018		1.52	
11/27/2018	1.69		1.3
5/28/2019		1.6	1.25
5/29/2019	1.74		
10/2/2019	1.86	1.7	1.33
3/30/2020			1.26
3/31/2020	1.92	1.78	
9/8/2020		1.94	3.24
9/9/2020	1.97		
5/11/2021	2.06	1.93	
5/12/2021			7
10/18/2021	2.1	2.01	
10/19/2021			2.75
5/31/2022	1.95	2.02	8.52

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	18.3	1.4	0.618
4/18/2016	23.2	1.2	0.505
6/6/2016	19.7	1.48	
6/7/2016			0.587
8/30/2016	10.9	1.13	0.495 (J)
10/18/2016	8.74	1.45	0.503
1/30/2017		1.95	
1/31/2017	7.89		0.554
5/2/2017	5.81	0.908	0.548
6/6/2017	4.72		
6/7/2017		1.29	0.545
9/12/2017	4.39	1.44	
9/13/2017			0.723
5/1/2018	4.66	0.695	
5/2/2018			0.751
11/26/2018	3.41		
11/27/2018		0.798	0.743
5/28/2019	10	0.973	0.789
10/2/2019	4.94	0.929	0.882
3/30/2020	7.56	1.32	0.841
9/8/2020	6.38	1.12	0.981
5/12/2021	13.5	1.63	1.02
10/18/2021	9.06	1.53	
10/19/2021			1.01
5/31/2022	9.98		
6/1/2022		1.27	0.94

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	1.15	
4/19/2016	1.04	
6/7/2016	1.22	
8/30/2016	1.18	
10/18/2016	1.12	
1/30/2017	1.23	
5/2/2017	1.2	
6/7/2017	1.17	
9/13/2017	1.25	
5/1/2018	1.25	
11/26/2018	1.61	
5/29/2019	1.8	
10/2/2019	1.85	
3/31/2020	1.67	0.663
9/8/2020		0.724
9/9/2020	1.79	
5/12/2021	1.82	0.861
10/19/2021	1.75	0.941
6/1/2022	1.55	1.13

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	3.59	3.57	3.99
4/19/2016	2.89	3.12	4.08
6/6/2016	3.12		
6/7/2016		3.14	4.28
8/30/2016	3.91	2.93	4.26
10/18/2016	3.9	2.96	4.26
3/20/2017	3.5		4.1
3/21/2017		4.4	
5/2/2017	3.5	3.7	5
6/6/2017	3.1		3.9
6/7/2017		3.3	
9/13/2017	<2 (U*)	5.1	<2 (U*)
5/1/2018		4	3.7
5/2/2018	9.9		
11/26/2018		3.8	
11/27/2018	4.7		3.2
5/29/2019	5.48	4.34	2.93
10/2/2019	3.65	4.34	2.75
3/31/2020	3.17	3.89	2.72
9/9/2020	2.92	4.11	2.32
5/11/2021			2.16
5/12/2021	2.18	3.94	
10/19/2021	2.37	3.79	2.08
5/31/2022	1.93		2.17
6/1/2022		3.35	

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	3.68	3.5	3.86
4/18/2016			4.46
4/19/2016	3.72	3.63	
6/6/2016		3.6	
6/7/2016	3.66		3.74
8/30/2016	3.7	3.54	3.5
10/18/2016	3.77	3.68	3.5
3/20/2017	3.7	4.6	
3/21/2017			2.8
5/2/2017	4.6	3.9	3.9
6/6/2017	3.4	3.4	3.4
9/12/2017		4.3	
9/13/2017	<2 (U*)		<2 (U*)
5/1/2018	4.1	3.8	
5/2/2018			3.5
11/26/2018		3.6	
11/27/2018	3.5		3.7
5/28/2019		3.6	3.69
5/29/2019	3.58		
10/2/2019	3.64	3.5	3.49
3/30/2020			3.45
3/31/2020	3.47	3.34	
9/8/2020		3.29	6.23
9/9/2020	3.47		
5/11/2021	3.42	3.33	
5/12/2021			5.89
10/18/2021	3.45	3.32	
10/19/2021			4.81
5/31/2022	3.39	3.31	7.83

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	6.06	4.08	4.47
4/18/2016	6.13	4.14	4.74
6/6/2016	5.52	4.09	
6/7/2016			4.52
8/30/2016	5.35	4.6	4.71
10/18/2016	4.55	8.32	4.73
3/21/2017	3.5	5.6	4.9
5/2/2017	4.8	4.8	5.7
6/6/2017	3.6		
6/7/2017		6.3	4.1
9/12/2017	4.3	8.5	
9/13/2017			4.9
5/1/2018	3.8	4	
5/2/2018			4.1
11/26/2018	3.5		
11/27/2018		4.3	4.9
5/28/2019	6.26	4.63	4.43
10/2/2019	4.13	5.02	4.32
3/30/2020	4.95	10.5	4.38
9/8/2020	5.71	8.74	4.61
5/12/2021	7.77	17.2	5.25
10/18/2021	10	16.8	
10/19/2021			5.34
5/31/2022	7.22		
6/1/2022		14.7	5.38

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	4.13
9/8/2020		3.96
9/9/2020	7.94	
5/12/2021	8.77	4.89
10/19/2021	6.33	5.02
6/1/2022	4.29	7.97

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.01	<0.01	<0.01
4/19/2016	<0.01	<0.01	<0.01
6/6/2016	<0.01		
6/7/2016		<0.01	<0.01
8/30/2016	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01
1/30/2017		<0.01	
1/31/2017	<0.01		<0.01
5/2/2017	<0.01	<0.01	<0.01
6/6/2017	<0.01		<0.01
6/7/2017		<0.01	
1/23/2018	<0.01	<0.01	0.00596 (J)
5/1/2018		<0.01	<0.01
5/2/2018	<0.01		
11/26/2018		<0.01	
11/27/2018	<0.01		<0.01
5/29/2019	<0.01	<0.01	<0.01
10/2/2019	<0.01	<0.01	<0.01
3/31/2020	<0.01	<0.01	<0.01
9/9/2020	<0.01	<0.01	<0.01
5/11/2021			0.00136
5/12/2021	0.000296 (J)	0.000695 (J)	
10/19/2021	0.0003 (J)	0.00079 (J)	0.00135
5/31/2022	0.00033 (J)		0.0012
6/1/2022		0.00089 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.01	<0.01	<0.01
4/18/2016			<0.01
4/19/2016	<0.01	<0.01	
6/6/2016		<0.01	
6/7/2016	<0.01		<0.01
8/30/2016	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01
1/31/2017	<0.01	<0.01	<0.01
5/2/2017	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01	<0.01
1/23/2018	0.00229 (J)	<0.01	
1/24/2018			<0.01
5/1/2018	<0.01	<0.01	
5/2/2018			<0.01
11/26/2018		<0.01	
11/27/2018	<0.01		<0.01
5/28/2019		<0.01	<0.01
5/29/2019	<0.01		
10/2/2019	<0.01	<0.01	<0.01
3/30/2020			<0.01
3/31/2020	<0.01	0.00604 (J)	
9/8/2020		<0.01	0.00221 (J)
9/9/2020	<0.01		
5/11/2021	0.00146	0.00159	
5/12/2021			0.00232
10/18/2021	0.0013	0.00146	
10/19/2021			0.00268
5/31/2022	0.00139	0.00156	0.00281

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.00209 (J)	<0.01	<0.01
4/18/2016	0.00324 (J)	<0.01	0.00201 (J)
6/6/2016	0.0031 (J)	<0.01	
6/7/2016			<0.01
8/30/2016	0.00227 (J)	<0.01	0.00205 (J)
10/18/2016	<0.01	<0.01	0.00218 (J)
1/30/2017		<0.01	
1/31/2017	<0.01		<0.01
5/2/2017	<0.01	<0.01	0.00208 (J)
6/6/2017	<0.01		
6/7/2017		<0.01	0.0022 (J)
1/22/2018	<0.01	<0.01	
1/24/2018			0.00258 (J)
5/1/2018	<0.01	<0.01	
5/2/2018			0.00202 (J)
11/26/2018	<0.01		
11/27/2018		<0.01	<0.01
5/28/2019	0.00223 (J)	<0.01	0.00209 (J)
10/2/2019	<0.01	<0.01	0.00223 (J)
3/30/2020	0.00273 (J)	<0.01	0.00275 (J)
9/8/2020	0.00237 (J)	<0.01	0.00224 (J)
5/12/2021	0.0034	0.00139	0.00218
10/18/2021	0.00335	0.00131	
10/19/2021			0.00246
5/31/2022	0.00412		
6/1/2022		0.00157	0.00226

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.01	
4/19/2016	<0.01	
6/7/2016	<0.01	
8/30/2016	<0.01	
10/18/2016	<0.01	
1/30/2017	<0.01	
5/2/2017	<0.01	
6/7/2017	<0.01	
1/23/2018	<0.01	
5/1/2018	<0.01	
11/26/2018	<0.01	
5/29/2019	<0.01	
10/2/2019	<0.01	
3/31/2020	<0.01	0.00249 (J)
9/8/2020		0.00253 (J)
9/9/2020	<0.01	
5/12/2021	0.000783 (J)	0.00281
10/19/2021	0.00081 (J)	0.00336
6/1/2022	0.00104	0.00292

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.0035 (J)	0.00247 (J)	<0.005
4/19/2016	0.0038 (J)	0.00241 (J)	<0.005
6/6/2016	0.00427 (J)		
6/7/2016		0.00247 (J)	<0.005
8/30/2016	0.00348 (J)	0.00251 (J)	<0.005
10/18/2016	0.00338 (J)	0.00272 (J)	<0.005
1/30/2017		<0.005	
1/31/2017	0.00308 (J)		<0.005
5/2/2017	0.00314 (J)	0.00205 (J)	<0.005
6/6/2017	0.0036 (J)		<0.005
6/7/2017		0.00201 (J)	
1/23/2018	0.00586 (J)	0.00229 (J)	0.0021 (J)
5/1/2018		0.00216 (J)	<0.005
5/2/2018	0.00702 (J)		
11/26/2018		0.00205 (J)	
11/27/2018	0.0157		0.00209 (J)
5/29/2019	0.0109	0.00261 (J)	0.00248 (J)
10/2/2019	0.0129	0.00262 (J)	0.00244 (J)
3/31/2020	0.0123	0.00238 (J)	0.00224 (J)
9/9/2020	0.00697	0.00241 (J)	0.00219 (J)
5/11/2021			0.00194
5/12/2021	0.00611	0.00237	
10/19/2021	0.00517	0.00238	0.00192
5/31/2022	0.00487		0.00194
6/1/2022		0.0027	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.005	<0.005	<0.005
4/18/2016			0.00278 (J)
4/19/2016	<0.005	<0.005	
6/6/2016		<0.005	
6/7/2016	<0.005		<0.005
8/30/2016	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005
1/31/2017	<0.005	<0.005	<0.005
5/2/2017	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005	<0.005
1/23/2018	<0.005	<0.005	
1/24/2018			<0.005
5/1/2018	<0.005	<0.005	
5/2/2018			<0.005
11/26/2018		<0.005	
11/27/2018	<0.005		<0.005
5/28/2019		<0.005	<0.005
5/29/2019	<0.005		
10/2/2019	<0.005	<0.005	<0.005
3/30/2020			<0.005
3/31/2020	<0.005	<0.005	
9/8/2020		<0.005	0.00227 (J)
9/9/2020	<0.005		
5/11/2021	0.00142	0.00137	
5/12/2021			0.0046
10/18/2021	0.00146	0.00139	
10/19/2021			0.00217
5/31/2022	0.00149	0.0015	0.00606

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.005	<0.005	<0.005
4/18/2016	0.00338 (J)	<0.005	<0.005
6/6/2016	0.00361 (J)	<0.005	
6/7/2016			<0.005
8/30/2016	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005
1/30/2017		<0.005	
1/31/2017	<0.005		<0.005
5/2/2017	<0.005	<0.005	<0.005
6/6/2017	<0.005		
6/7/2017		<0.005	<0.005
1/22/2018	<0.005	<0.005	
1/24/2018			<0.005
5/1/2018	<0.005	<0.005	
5/2/2018			<0.005
11/26/2018	<0.005		
11/27/2018		<0.005	<0.005
5/28/2019	0.00301 (J)	<0.005	<0.005
10/2/2019	<0.005	<0.005	<0.005
3/30/2020	0.0031 (J)	<0.005	<0.005
9/8/2020	0.00296 (J)	<0.005	<0.005
5/12/2021	0.0054	0.00192	0.000437
10/18/2021	0.00552	0.00164	
10/19/2021			0.00049
5/31/2022	0.00724		
6/1/2022		0.00162	0.00048

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.005	
4/19/2016	<0.005	
6/7/2016	<0.005	
8/30/2016	<0.005	
10/18/2016	<0.005	
1/30/2017	<0.005	
5/2/2017	<0.005	
6/7/2017	<0.005	
1/23/2018	<0.005	
5/1/2018	<0.005	
11/26/2018	<0.005	
5/29/2019	<0.005	
10/2/2019	<0.005	
3/31/2020	<0.005	<0.005
9/8/2020		<0.005
9/9/2020	<0.005	
5/12/2021	0.00177	0.00101
10/19/2021	0.00156	0.00117
6/1/2022	0.00131	0.00143

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	2.8971 (U)	3 (U)	3 (U)
4/19/2016	3 (U)	3 (U)	3 (U)
6/6/2016	0.841		
6/7/2016		1.03	0.652
8/30/2016	1.74	1.05	0.411 (U)
10/18/2016	1.47	1.36	1
1/30/2017		0.847	
1/31/2017	0.952		0.398 (U)
5/2/2017	0.768	0.649	0.66
6/6/2017	1.04		0.639
6/7/2017		1.4	
1/23/2018	0.513 (U)	1.36 (U)	0.669 (U)
5/1/2018		1.03	1.06
5/2/2018	0.916		
11/26/2018		1.04	
11/27/2018	1.37		0.636
5/29/2019	1.57	0.548 (U)	0.579 (U)
10/2/2019	0.905	2.19	1.33
3/31/2020	1.77	1.01	0.814
9/9/2020	1.77	1.32	0.653 (U)
5/11/2021			0.945 (U)
5/12/2021	0.639 (U)	2.02	
10/19/2021	1.77	1.6 (V)	1.85
5/31/2022	1.34		1.38
6/1/2022		2.27	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	3 (U)	2.1138	3 (U)
4/18/2016			3 (U)
4/19/2016	3 (U)	3 (U)	
6/6/2016		0.757	
6/7/2016	0.342 (U)		1.03
8/30/2016	0.702	0.992	0.696
10/18/2016	0.791	0.905	0.966
1/31/2017	0.0613 (U)	1.08	0.724
5/2/2017	0.974	1.18	0.587
6/6/2017	0.748	1.1	0.591
1/23/2018	0.558 (U)	1.32 (U)	
1/24/2018			0.566 (U)
5/1/2018	0.296 (U)	1.19	
5/2/2018			0.401
11/26/2018		0.863	
11/27/2018	0.357 (U)		0.611
5/28/2019		0.474 (U)	0.391 (U)
5/29/2019	0.275 (U)		
10/2/2019	0.458 (U)	0.624 (U)	0.954
3/30/2020			0.525
3/31/2020	0.941	1.09	
9/8/2020		1.27	0.845
9/9/2020	1.05		
5/11/2021	0.521 (U)	0.969 (U)	
5/12/2021			0.465 (U)
10/18/2021	1.75	2.19	
10/19/2021			0.719 (U)
5/31/2022	1.67	1.47	2.31

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	1.2261 (U)	3 (U)	3 (U)
4/18/2016	1.92351 (U)	3 (U)	3 (U)
6/6/2016	1.47	0.427	
6/7/2016			0.69
8/30/2016	1.91	0.869	0.687
10/18/2016	0.966	0.927	0.62
1/30/2017		0.649	
1/31/2017	1.01		0.266 (U)
5/2/2017	1.41	0.804	0.853
6/6/2017	0.476		
6/7/2017		0.136 (U)	0.477
1/22/2018	0.814 (U)	0.726 (U)	
1/24/2018			0.411 (U)
5/1/2018	0.931	0.63	
5/2/2018			0.718
11/26/2018	0.815		
11/27/2018		0.109 (U)	0.691
5/28/2019	2.08	-0.428 (U)	0.311 (U)
10/2/2019	0.836	0.43 (U)	0.969
3/30/2020	1.54	0.939	0.397 (U)
9/8/2020	0.402 (U)	1.13	0.0249 (U)
5/12/2021	2.47	1.09	1.29
10/18/2021	2.03	0.69 (U)	
10/19/2021			1.54
5/31/2022	2.22		
6/1/2022		0.99	1.37

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	3 (U)	
4/19/2016	3.81872	
6/7/2016	0.941	
8/30/2016	0.98	
10/18/2016	1.06	
1/30/2017	1.15	
5/2/2017	1.31	
6/7/2017	1.12	
1/23/2018	1.16 (U)	
5/1/2018	0.961	
11/26/2018	1.72	
5/29/2019	2.2	
10/2/2019	2	
3/31/2020	1.88	0.968
9/8/2020		0.468 (U)
9/9/2020	2.11	
5/12/2021	1.94	0.515 (U)
10/19/2021	3.15	0.87 (U)
6/1/2022	2.05	1.13

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.03 (J)	0.05 (J)	0.02 (J)
4/19/2016	0.023 (J)	0.05 (J)	0.021 (J)
6/6/2016	0.062 (J)		
6/7/2016		0.098 (J)	0.06 (J)
8/30/2016	0.053 (J)	0.089 (J)	0.05 (J)
10/18/2016	0.042 (J)	0.092 (J)	0.04 (J)
3/20/2017	<0.125		<0.125
3/21/2017		0.06 (J)	
5/2/2017	0.04 (J)	0.07 (J)	0.04 (J)
6/6/2017	<0.125		0.04 (J)
6/7/2017		0.07 (J)	
9/13/2017	0.04 (J)	0.08 (J)	0.043 (J)
1/23/2018	<0.125	0.08 (J)	0.04 (J)
5/1/2018		0.09 (J)	0.04 (J)
5/2/2018	0.04 (J)		
11/26/2018		0.08 (J)	
11/27/2018	<0.125		<0.125
5/29/2019	0.0502 (J)	<0.125	<0.125
10/2/2019	<0.125	<0.125	<0.125
3/31/2020	<0.125	<0.125	<0.125
9/9/2020	<0.125	<0.125	<0.125
5/11/2021			<0.125
5/12/2021	<0.125	<0.125	
10/19/2021	<0.125	<0.125	<0.125
5/31/2022	<0.125		<0.125
6/1/2022		<0.125	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	0.02 (J)	0.02 (J)	0.02 (J)
4/18/2016			0.04 (J)
4/19/2016	0.016 (J)	0.015 (J)	
6/6/2016		0.05 (J)	
6/7/2016	0.052 (J)		0.066 (J)
8/30/2016	0.038 (J)	0.036 (J)	0.046 (J)
10/18/2016	0.03 (J)	0.025 (J)	0.034 (J)
3/20/2017	<0.125	<0.125	
3/21/2017			<0.125
5/2/2017	<0.125	<0.125	<0.125
6/6/2017	<0.125	<0.125	<0.125
9/12/2017		<0.125	
9/13/2017	<0.125		<0.125
1/23/2018	<0.125	<0.125	
1/24/2018			<0.125
5/1/2018	<0.125	<0.125	
5/2/2018			<0.125
11/26/2018		<0.125	
11/27/2018	<0.125		<0.125
5/28/2019		<0.125	<0.125
5/29/2019	<0.125		
10/2/2019	<0.125	<0.125	<0.125
3/30/2020			<0.125
3/31/2020	<0.125	<0.125	
9/8/2020		<0.125	<0.125
9/9/2020	<0.125		
5/11/2021	<0.125	<0.125	
5/12/2021			<0.125
10/18/2021	<0.125	<0.125	
10/19/2021			<0.125
5/31/2022	<0.125	<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.06 (J)	0.02 (J)	0.02 (J)
4/18/2016	0.138 (J)	0.018 (J)	0.019 (J)
6/6/2016	0.148 (J)	0.051 (J)	
6/7/2016			0.053 (J)
8/30/2016	0.072 (J)	0.039 (J)	0.038 (J)
10/18/2016	0.049 (J)	0.025 (J)	0.028 (J)
3/21/2017	<0.125	<0.125	<0.125
5/2/2017	<0.125	<0.125	<0.125
6/6/2017	<0.125		
6/7/2017		<0.125	<0.125
9/12/2017	<0.125	<0.125	
9/13/2017			<0.125
1/22/2018	<0.125	<0.125	
1/24/2018			<0.125
5/1/2018	<0.125	<0.125	
5/2/2018			<0.125
11/26/2018	<0.125		
11/27/2018		<0.125	<0.125
5/28/2019	0.0591 (J)	<0.125	<0.125
10/2/2019	<0.125	<0.125	<0.125
3/30/2020	<0.125	<0.125	<0.125
9/8/2020	<0.125	<0.125	<0.125
5/12/2021	<0.125	<0.125	<0.125
10/18/2021	<0.125	<0.125	
10/19/2021			<0.125
5/31/2022	<0.125		
6/1/2022		<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	0.05 (J)	
4/19/2016	0.039 (J)	
6/7/2016	0.085 (J)	
8/30/2016	0.078 (J)	
10/18/2016	0.071 (J)	
3/21/2017	0.05 (J)	
5/2/2017	0.06 (J)	
6/7/2017	0.07 (J)	
9/13/2017	0.08 (J)	
1/23/2018	0.07 (J)	
5/1/2018	0.07 (J)	
11/26/2018	0.07 (J)	
5/29/2019	<0.125	
10/2/2019	<0.125	
3/31/2020	<0.125	<0.125
9/8/2020		<0.125
9/9/2020	<0.125	
5/12/2021	<0.125	<0.125
10/19/2021	<0.125	<0.125
6/1/2022	<0.125	<0.125

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			0.000118 (J)
5/12/2021	9.79E-05 (J)	0.000113 (J)	
10/19/2021	0.00012 (J)	0.0001 (J)	0.0001 (J)
5/31/2022	8E-05 (J)		8E-05 (J)
6/1/2022		0.0001 (J)	

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	0.00126 (J)	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	0.000159 (J)	
5/12/2021			9.94E-05 (J)
10/18/2021	<0.0002	0.00012 (J)	
10/19/2021			0.00026
5/31/2022	<0.0002	0.00017 (J)	0.00018 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	0.000213	7.98E-05 (J)	<0.0002
10/18/2021	0.00011 (J)	8E-05 (J)	
10/19/2021			<0.0002
5/31/2022	0.00011 (J)		
6/1/2022		8E-05 (J)	<0.0002

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	0.000288	0.000208
10/19/2021	0.00025	0.00014 (J)
6/1/2022	0.00023	0.00012 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.02	<0.02	<0.02
4/19/2016	<0.02	<0.02	<0.02
6/6/2016	<0.02		
6/7/2016		<0.02	<0.02
8/30/2016	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02
1/30/2017		<0.02	
1/31/2017	<0.02		<0.02
5/2/2017	<0.02	<0.02	<0.02
6/6/2017	<0.02		<0.02
6/7/2017		<0.02	
1/23/2018	<0.02	<0.02	<0.02
5/1/2018		<0.02	<0.02
5/2/2018	<0.02		
11/26/2018		<0.02	
11/27/2018	<0.02		<0.02
5/29/2019	<0.02	<0.02	<0.02
10/2/2019	<0.02	<0.02	<0.02
3/31/2020	<0.02	<0.02	<0.02
9/9/2020	<0.02	<0.02	<0.02
5/11/2021			<0.02
5/12/2021	<0.02	<0.02	
10/19/2021	<0.02	<0.02	<0.02
5/31/2022	<0.02		<0.02
6/1/2022		<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.02	<0.02	<0.02
4/18/2016			<0.02
4/19/2016	<0.02	<0.02	
6/6/2016		<0.02	
6/7/2016	<0.02		<0.02
8/30/2016	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02
1/31/2017	<0.02	<0.02	<0.02
5/2/2017	<0.02	<0.02	<0.02
6/6/2017	<0.02	<0.02	<0.02
1/23/2018	<0.02	<0.02	
1/24/2018			<0.02
5/1/2018	<0.02	<0.02	
5/2/2018			<0.02
11/26/2018		<0.02	
11/27/2018	<0.02		<0.02
5/28/2019		<0.02	<0.02
5/29/2019	<0.02		
10/2/2019	<0.02	<0.02	<0.02
3/30/2020			<0.02
3/31/2020	<0.02	<0.02	
9/8/2020		<0.02	<0.02
9/9/2020	<0.02		
5/11/2021	<0.02	<0.02	
5/12/2021			<0.02
10/18/2021	<0.02	<0.02	
10/19/2021			<0.02
5/31/2022	<0.02	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.02	<0.02	<0.02
4/18/2016	<0.02	<0.02	<0.02
6/6/2016	<0.02	<0.02	
6/7/2016			<0.02
8/30/2016	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02
1/30/2017		<0.02	
1/31/2017	<0.02		<0.02
5/2/2017	<0.02	<0.02	<0.02
6/6/2017	<0.02		
6/7/2017		<0.02	<0.02
1/22/2018	<0.02	<0.02	
1/24/2018			<0.02
5/1/2018	<0.02	<0.02	
5/2/2018			<0.02
11/26/2018	<0.02		
11/27/2018		<0.02	<0.02
5/28/2019	<0.02	<0.02	<0.02
10/2/2019	<0.02	<0.02	<0.02
3/30/2020	<0.02	<0.02	<0.02
9/8/2020	<0.02	<0.02	<0.02
5/12/2021	<0.02	<0.02	<0.02
10/18/2021	<0.02	<0.02	
10/19/2021			<0.02
5/31/2022	<0.02		
6/1/2022		<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.02	
4/19/2016	<0.02	
6/7/2016	<0.02	
8/30/2016	<0.02	
10/18/2016	<0.02	
1/30/2017	<0.02	
5/2/2017	<0.02	
6/7/2017	<0.02	
1/23/2018	<0.02	
5/1/2018	<0.02	
11/26/2018	<0.02	
5/29/2019	<0.02	
10/2/2019	<0.02	
3/31/2020	<0.02	<0.02
9/8/2020		<0.02
9/9/2020	<0.02	
5/12/2021	<0.02	<0.02
10/19/2021	<0.02	<0.02
6/1/2022	<0.02	<0.02

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0005	<0.0005	<0.0005
4/19/2016	<0.0005	<0.0005	<0.0005
6/6/2016	<0.0005		
6/7/2016		<0.0005	<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005
1/30/2017		<0.0005	
1/31/2017	<0.0005		<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005		<0.0005
6/7/2017		<0.0005	
1/23/2018	<0.0005	<0.0005	<0.0005
5/1/2018		<0.0005	<0.0005
5/2/2018	<0.0005		
11/26/2018		<0.0005	
11/27/2018	<0.0005		<0.0005
5/29/2019	<0.0005	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005
3/31/2020	<0.0005	<0.0005	<0.0005
9/9/2020	<0.0005	<0.0005	<0.0005
5/11/2021			<0.0005
5/12/2021	<0.0005	<0.0005	
10/19/2021	<0.0005	<0.0005	<0.0005
5/31/2022	<0.0005		<0.0005
6/1/2022		<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0005	<0.0005	<0.0005
4/18/2016			<0.0005
4/19/2016	<0.0005	<0.0005	
6/6/2016		<0.0005	
6/7/2016	<0.0005		<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005
1/31/2017	<0.0005	<0.0005	<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005	<0.0005	<0.0005
1/23/2018	<0.0005	<0.0005	
1/24/2018			<0.0005
5/1/2018	<0.0005	<0.0005	
5/2/2018			<0.0005
11/26/2018		<0.0005	
11/27/2018	<0.0005		<0.0005
5/28/2019		<0.0005	<0.0005
5/29/2019	<0.0005		
10/2/2019	<0.0005	<0.0005	<0.0005
3/30/2020			<0.0005
3/31/2020	<0.0005	<0.0005	
9/8/2020		<0.0005	<0.0005
9/9/2020	<0.0005		
5/11/2021	<0.0005	<0.0005	
5/12/2021			<0.0005
10/18/2021	<0.0005	<0.0005	
10/19/2021			<0.0005
5/31/2022	<0.0005	<0.0005	0.00036 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0005	<0.0005	<0.0005
4/18/2016	<0.0005	<0.0005	<0.0005
6/6/2016	<0.0005	<0.0005	
6/7/2016			0.00031 (J)
8/30/2016	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005
1/30/2017		<0.0005	
1/31/2017	<0.0005		<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005		
6/7/2017		<0.0005	<0.0005
1/22/2018	<0.0005	<0.0005	
1/24/2018			<0.0005
5/1/2018	<0.0005	<0.0005	
5/2/2018			<0.0005
11/26/2018	<0.0005		
11/27/2018		<0.0005	<0.0005
5/28/2019	<0.0005	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005	<0.0005
9/8/2020	<0.0005	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005	<0.0005
10/18/2021	<0.0005	<0.0005	
10/19/2021			<0.0005
5/31/2022	0.00035 (J)		
6/1/2022		<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0005	
4/19/2016	<0.0005	
6/7/2016	<0.0005	
8/30/2016	<0.0005	
10/18/2016	<0.0005	
1/30/2017	<0.0005	
5/2/2017	<0.0005	
6/7/2017	<0.0005	
1/23/2018	<0.0005	
5/1/2018	<0.0005	
11/26/2018	<0.0005	
5/29/2019	<0.0005	
10/2/2019	<0.0005	
3/31/2020	<0.0005	<0.0005
9/8/2020		<0.0005
9/9/2020	<0.0005	
5/12/2021	<0.0005	<0.0005
10/19/2021	<0.0005	<0.0005
6/1/2022	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			<0.0002
5/12/2021	<0.0002	<0.0002	
10/19/2021	<0.0002	<0.0002	<0.0002
5/31/2022	<0.0002		<0.0002
6/1/2022		<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	<0.0002	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	<0.0002	
5/12/2021			<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			0.0001 (J)
5/31/2022	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002	<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			8E-05 (J)
5/31/2022	<0.0002		
6/1/2022		<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002
6/1/2022	<0.0002	<0.0002

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	4.62	4.67	4.79
4/19/2016	4.74	4.79	4.84
6/6/2016	4.65		
6/7/2016		4.73	4.81
8/30/2016	4.64	4.68	4.76
10/18/2016	4.74	4.75	4.84
1/30/2017		4.65	
1/31/2017	4.54		4.6
3/20/2017	4.67		4.71
3/21/2017		4.68	
5/2/2017	4.79	4.75	4.8
6/6/2017	4.76		4.72
6/7/2017		4.7	
9/13/2017	4.81	4.71	4.71
1/23/2018	4.79	4.6	4.67
5/1/2018		4.61	4.61
5/2/2018	4.62		
11/26/2018		4.65	
11/27/2018	4.73		4.72
5/29/2019	4.65	4.54	4.58
10/2/2019	4.57	4.6	4.43
3/31/2020	4.64	4.55	4.6
9/9/2020	4.65	4.58	4.67
5/11/2021			4.29
5/12/2021	4.74	4.4	
10/19/2021	4.67	4.48	4.6
5/31/2022	3.89		3.31
6/1/2022		4.56	

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	4.96	4.74	4.76
4/18/2016			4.75
4/19/2016	4.94	4.86	
6/6/2016		4.88	
6/7/2016	4.96		4.77
8/30/2016	4.92	4.91	4.82
10/18/2016	4.98	4.95	4.82
1/31/2017	4.74	4.71	4.8
3/20/2017	4.9	4.83	
3/21/2017			4.86
5/2/2017	4.98	4.93	4.89
6/6/2017	4.94	4.9	4.86
9/12/2017		4.82	
9/13/2017	4.93		4.89
1/23/2018	4.91	4.85	
1/24/2018			4.86
5/1/2018	4.87	4.8	
5/2/2018			4.87
11/26/2018		4.88	
11/27/2018	4.94		4.92
5/28/2019		4.73	4.8
5/29/2019	4.8		
10/2/2019	4.52	4.67	4.44
3/30/2020			4.83
3/31/2020	4.4	4.51	
9/8/2020		4.75	4.77
9/9/2020	4.76		
5/11/2021	4.53	4.67	
5/12/2021			4.61
10/18/2021	4.55	4.38	
10/19/2021			4.79
5/31/2022	3.54	3.97	4.61

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	6.59	5.12	4.92
4/18/2016	6.21	5.11	5.16
6/6/2016	5.97	5.14	
6/7/2016			5.11
8/30/2016	5.99	5.06	5.14
10/18/2016	5.94	5.01	5.09
1/30/2017		4.74	
1/31/2017	5.92		5.01
3/21/2017	5.74	5.04	5.07
5/2/2017	5.82	5.08	5.13
6/6/2017	5.77		
6/7/2017		5.07	5.05
9/12/2017	5.64	5.03	
9/13/2017			5.06
1/22/2018	5.66	5.06	
1/24/2018			5.02
5/1/2018	5.71	4.89	
5/2/2018			4.99
11/26/2018	5.58		
11/27/2018		5.05	5.06
5/28/2019	5.21	4.83	4.92
10/2/2019	5.4	5.04	4.86
3/30/2020	5.51	4.91	4.92
9/8/2020	5.15	4.39	4.35
5/12/2021	5.46	4.84	4.83
10/18/2021	5.28	5.05	
10/19/2021			4.77
5/31/2022	4.98		
6/1/2022		4.56	4.03

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	4.56	
4/19/2016	4.62	
6/7/2016	4.64	
8/30/2016	4.58	
10/18/2016	4.58	
1/30/2017	4.44	
3/21/2017	4.57	
5/2/2017	4.64	
6/7/2017	4.58	
9/13/2017	4.54	
1/23/2018	4.53	
5/1/2018	4.46	
11/26/2018	4.5	
5/29/2019	4.45	
10/2/2019	4.49	
3/31/2020	4.45	4.91
9/8/2020		4.12
9/9/2020	4.46	
5/12/2021	4.43	4.93
10/19/2021	4.34	4.8
6/1/2022	4.49	4.74

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.00102	<0.00102	<0.00102
4/19/2016	<0.00102	<0.00102	<0.00102
6/6/2016	<0.00102		
6/7/2016		<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	<0.00102		<0.00102
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102		<0.00102
6/7/2017		<0.00102	
1/23/2018	<0.00102	<0.00102	<0.00102
5/1/2018		<0.00102	<0.00102
5/2/2018	<0.00102		
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/29/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102
9/9/2020	<0.00102	<0.00102	<0.00102
5/11/2021			0.000602 (J)
5/12/2021	<0.00102	0.000778 (J)	
10/19/2021	<0.00102	0.00083 (J)	<0.00102
5/31/2022	<0.00102		0.00063 (J)
6/1/2022		0.00125	

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.00102	<0.00102	0.00572 (J)
4/18/2016			0.0141
4/19/2016	<0.00102	<0.00102	
6/6/2016		<0.00102	
6/7/2016	<0.00102		0.00698 (J)
8/30/2016	<0.00102	<0.00102	0.0042 (J)
10/18/2016	<0.00102	<0.00102	0.00386 (J)
1/31/2017	<0.00102	<0.00102	0.00247 (J)
5/2/2017	<0.00102	<0.00102	0.00284 (J)
6/6/2017	<0.00102	<0.00102	0.003 (J)
1/23/2018	<0.00102	<0.00102	
1/24/2018			0.00201 (J)
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019		<0.00102	<0.00102
5/29/2019	<0.00102		
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020			<0.00102
3/31/2020	<0.00102	<0.00102	
9/8/2020		<0.00102	0.0052 (J)
9/9/2020	<0.00102		
5/11/2021	<0.00102	<0.00102	
5/12/2021			0.0163
10/18/2021	<0.00102	<0.00102	
10/19/2021			0.0029
5/31/2022	<0.00102	<0.00102	0.0217

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.0266	<0.00102	<0.00102
4/18/2016	0.0529	<0.00102	<0.00102
6/6/2016	0.0382	<0.00102	
6/7/2016			<0.00102
8/30/2016	0.014	<0.00102	<0.00102
10/18/2016	0.0105	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	0.0104		<0.00102
5/2/2017	0.00778 (J)	<0.00102	<0.00102
6/6/2017	0.00576 (J)		
6/7/2017		<0.00102	<0.00102
1/22/2018	0.00287 (J)	<0.00102	
1/24/2018			<0.00102
5/1/2018	0.00367 (J)	<0.00102	
5/2/2018			<0.00102
11/26/2018	0.00286 (J)		
11/27/2018		<0.00102	<0.00102
5/28/2019	0.0089 (J)	<0.00102	<0.00102
10/2/2019	0.00472 (J)	<0.00102	<0.00102
3/30/2020	0.00658 (J)	<0.00102	<0.00102
9/8/2020	0.0052 (J)	<0.00102	<0.00102
5/12/2021	0.0123	<0.00102	<0.00102
10/18/2021	0.00672	<0.00102	
10/19/2021			0.00052 (J)
5/31/2022	0.0132		
6/1/2022		0.00058 (J)	<0.00102

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.00102	
4/19/2016	<0.00102	
6/7/2016	<0.00102	
8/30/2016	<0.00102	
10/18/2016	<0.00102	
1/30/2017	<0.00102	
5/2/2017	<0.00102	
6/7/2017	<0.00102	
1/23/2018	<0.00102	
5/1/2018	<0.00102	
11/26/2018	<0.00102	
5/29/2019	<0.00102	
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
9/8/2020		<0.00102
9/9/2020	<0.00102	
5/12/2021	0.00128	0.00111
10/19/2021	0.00118	0.00114
6/1/2022	0.00204	0.00132

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	8.59	9.29	7.2
4/19/2016	8.27	9.92	7.22
6/6/2016	8.66		
6/7/2016		10	7.92
8/30/2016	9.74	11.1	8.17
10/18/2016	10.2	11.7	7.99
3/20/2017	8.3		6.1
3/21/2017		9	
5/2/2017	6.6	7.9	5
6/6/2017	7.6		5.3
6/7/2017		8.4	
9/13/2017	8.4	8.7	4.9 (J)
5/1/2018		10	4.2 (J)
5/2/2018	5.9		
11/26/2018		8.3	
11/27/2018	22		3.7 (J)
5/29/2019	23.3	11.1	5.94
10/2/2019	17.5	13.2	6.04
3/31/2020	24.3	11.1	6.83
9/9/2020	16.5	9.28	6.08
5/11/2021			7.92
5/12/2021	16.3	11	
10/19/2021	15.5	10.1	7.48
5/31/2022	12.8		8.09
6/1/2022		11.4	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	7.44	7.04	12.5
4/18/2016			28.6
4/19/2016	7.66	6.74	
6/6/2016		7.04	
6/7/2016	8.16		18.7
8/30/2016	8.43	7.57	13.8
10/18/2016	8.47	6.62	12.2
3/20/2017	7.4	7	
3/21/2017			8.6
5/2/2017	6.3	5.6	8
6/6/2017	7.1	6.6	8.6
9/12/2017		7.2	
9/13/2017	7.3		7.6
5/1/2018	6.9	5.9	
5/2/2018			6
11/26/2018		5.1	
11/27/2018	6.5		5.5
5/28/2019		7.1	6.5
5/29/2019	7.81		
10/2/2019	7.62	6.88	6.55
3/30/2020			6.34
3/31/2020	7.98	10.8	
9/8/2020		6.52	15.1
9/9/2020	7.13		
5/11/2021	7.73	6.8	
5/12/2021			38.2
10/18/2021	7.36	6.58	
10/19/2021			12.3
5/31/2022	7.02	7.94	48.7

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	36.5	3.82	3.33
4/18/2016	80.2 (O)	3.48	3.78
6/6/2016	0.498 (J)	3.76	
6/7/2016			4.44
8/30/2016	27.8	3.62	4.29
10/18/2016	22.5	2.58	4.27
3/21/2017	15	3.3 (J)	3.6 (J)
5/2/2017	11	2.5 (J)	2.9 (J)
6/6/2017	10		
6/7/2017		3.1 (J)	2.9 (J)
9/12/2017	7.5	3 (J)	
9/13/2017			3.2 (J)
5/1/2018	8.5	1.6 (J)	
5/2/2018			2.6 (J)
11/26/2018	7.4		
11/27/2018		1.9 (J)	2.8 (J)
5/28/2019	32.7	4.86	4.46
10/2/2019	15.9	4.6	4.96
3/30/2020	21.8	4.29	4.84
9/8/2020	17.7	3.59	4.56
5/12/2021	37.1	3.58	4.7
10/18/2021	24.7	2.54	
10/19/2021			4.2
5/31/2022	38.6		
6/1/2022		3.4	5.11

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	3.16
9/8/2020		3.61
9/9/2020	10.7	
5/12/2021	12.5	4.62
10/19/2021	12.6	4.92
6/1/2022	13	4.75

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	26.7	37.3	30.7
4/19/2016	<25	34	<25
6/6/2016	32.7		
6/7/2016		38.7	35.3
8/30/2016	33.3	34	27.3
10/18/2016	27.3	31.3	<25
1/30/2017		<25	
1/31/2017	32		32.7
5/2/2017	31.3	29.3	30.7
6/6/2017	35.3		34.7
6/7/2017		36	
9/13/2017	36.7	35.3	39.3
5/1/2018		32	42
5/2/2018	34		
11/26/2018		31.3	
11/27/2018	50.7		31.3
5/29/2019	58	43.3	40
10/2/2019	46	36	41.3
3/31/2020	53.3	33.3	40
9/9/2020	42	39.3	40.7
5/11/2021			35.3
5/12/2021	40.7	42.7	
10/19/2021	40	39.3	36
5/31/2022	32		30.7
6/1/2022		40.7	

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	40	<25	38
4/18/2016			62
4/19/2016	32	<25	
6/6/2016		28.7	
6/7/2016	38.7		51.3
8/30/2016	31.3	25.3	38
10/18/2016	26.7	<25	28.7
1/31/2017	30	26	34
5/2/2017	30.7	<25	37.3
6/6/2017	32.7	42.7	36.7
9/12/2017		26.7	
9/13/2017	38		37.3
5/1/2018	35.3	34.7	
5/2/2018			30.7
11/26/2018		32.7	
11/27/2018	36		<25
5/28/2019		31.3	26
5/29/2019	37.3		
10/2/2019	36.7	36	34.7
3/30/2020			32
3/31/2020	39.3	36.7	
9/8/2020		39.3	55.3
9/9/2020	42.7		
5/11/2021	44	46.7	
5/12/2021			85.3
10/18/2021	36	36	
10/19/2021			48.7
5/31/2022	35.3	36.7	104

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	128	<25	30
4/18/2016	166	<25	27.3
6/6/2016	131	32.7	
6/7/2016			32
8/30/2016	86.7	25.3	<25
10/18/2016	67.3	28	28
1/30/2017		45.3	
1/31/2017	60.7		26
5/2/2017	50	26.7	25.3
6/6/2017	47.3		
6/7/2017		28	<25
9/12/2017	42.7	35.3	
9/13/2017			31.3
5/1/2018	44	30.7	
5/2/2018			30.7
11/26/2018	38		
11/27/2018		30.7	35.3
5/28/2019	77.3	33.3	28.7
10/2/2019	50.7	30.7	37.3
3/30/2020	58	39.3	30
9/8/2020	59.3	42	38
5/12/2021	98.7	52.7	40
10/18/2021	77.3	42.7	
10/19/2021			33.3
5/31/2022	85.3		
6/1/2022		41.3	30.7

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	25.3	
4/19/2016	28	
6/7/2016	34.7	
8/30/2016	26.7	
10/18/2016	32	
1/30/2017	32.7	
5/2/2017	30.7	
6/7/2017	<25	
9/13/2017	37.3	
5/1/2018	39.3	
11/26/2018	48	
5/29/2019	60	
10/2/2019	46.7	
3/31/2020	37.3	<25
9/8/2020		29.3
9/9/2020	50.7	
5/12/2021	50.7	40
10/19/2021	48	37.3
6/1/2022	39.3	35.3

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			<0.0002
5/12/2021	<0.0002	<0.0002	
10/19/2021	<0.0002	<0.0002	<0.0002
5/31/2022	<0.0002		<0.0002
6/1/2022		<0.0002	

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	<0.0002	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	<0.0002	
5/12/2021			<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			<0.0002
5/31/2022	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002	<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			<0.0002
5/31/2022	<0.0002		
6/1/2022		<0.0002	<0.0002

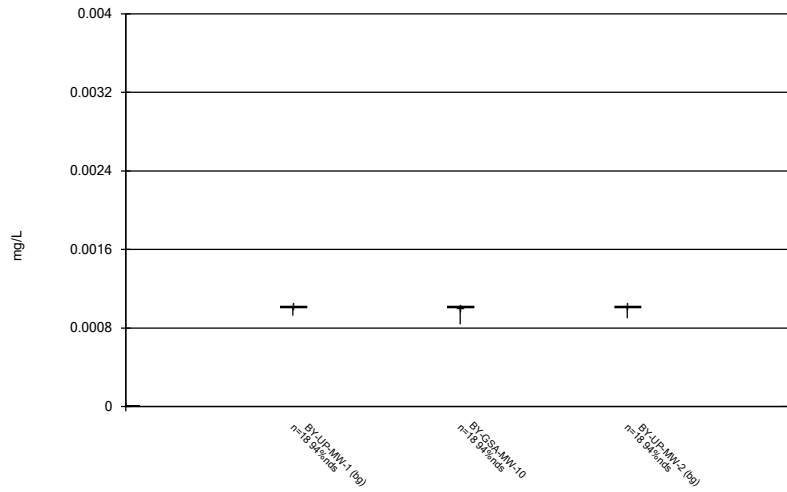
Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002
6/1/2022	<0.0002	<0.0002

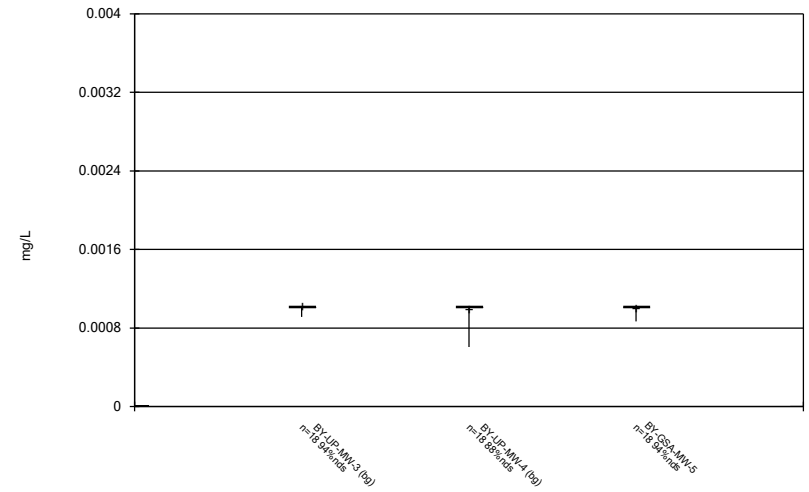
FIGURE B.

Box & Whiskers Plot



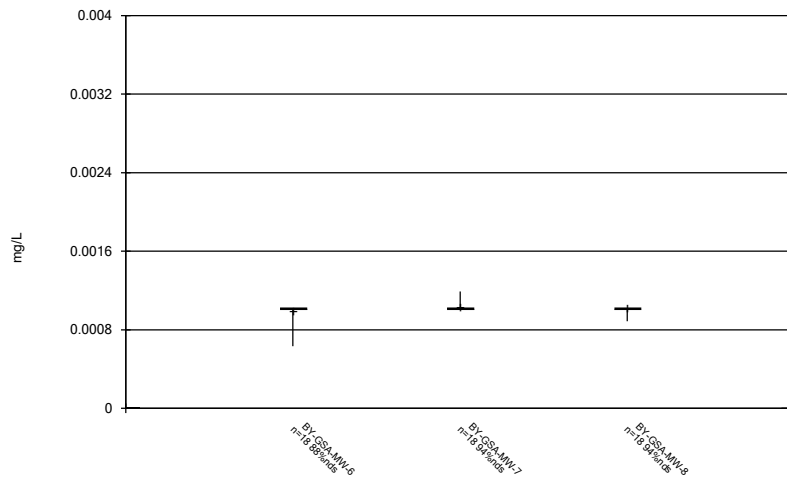
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



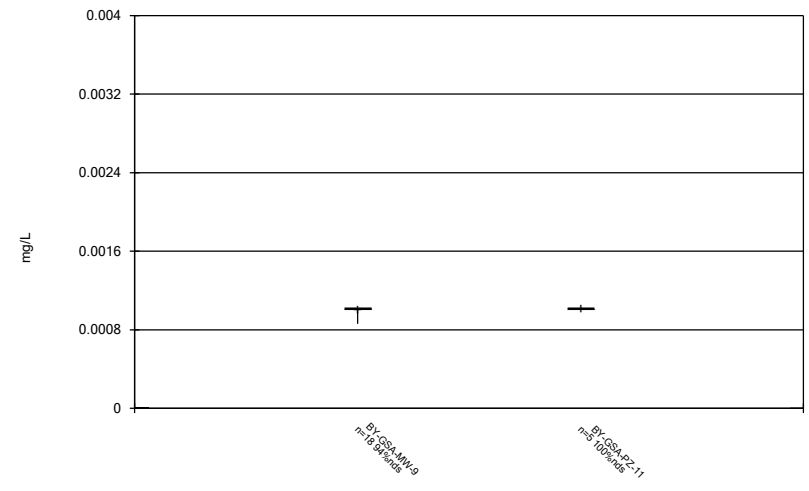
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



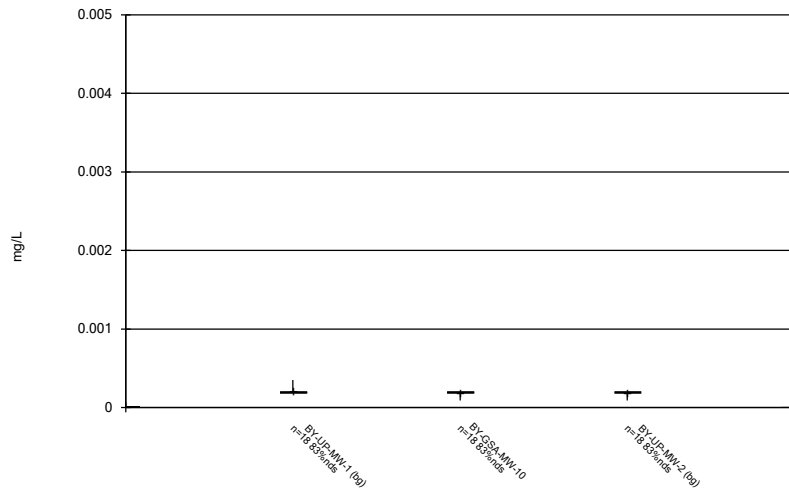
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Box & Whiskers Plot



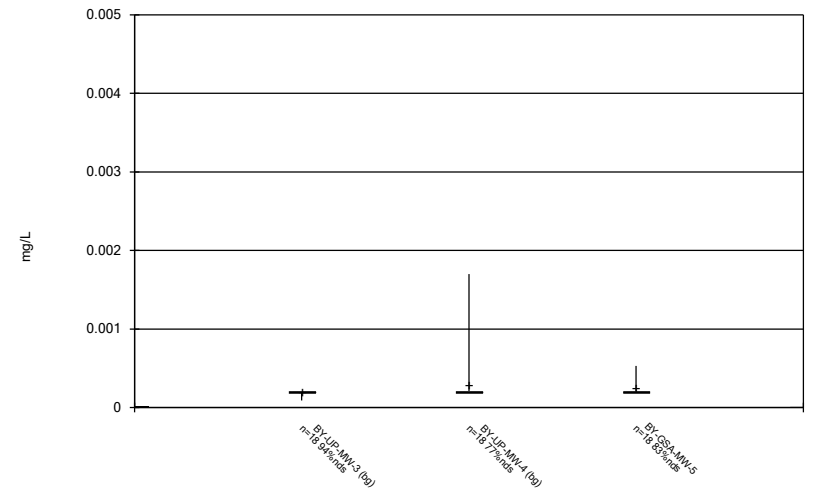
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Box & Whiskers Plot



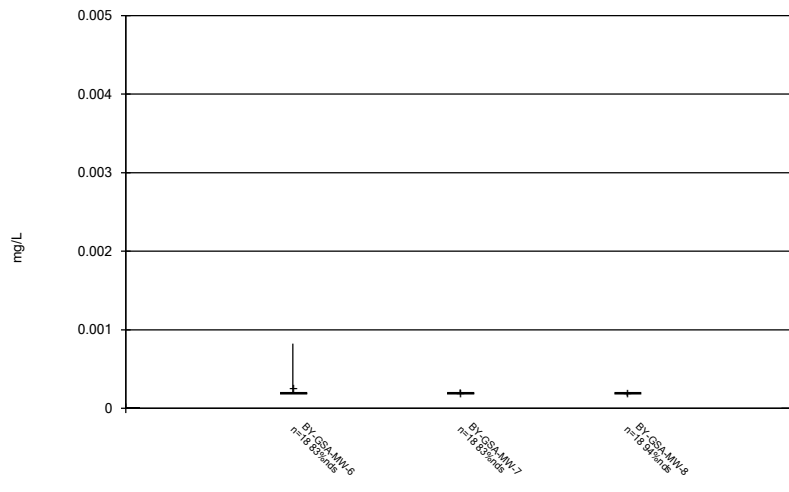
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Box & Whiskers Plot



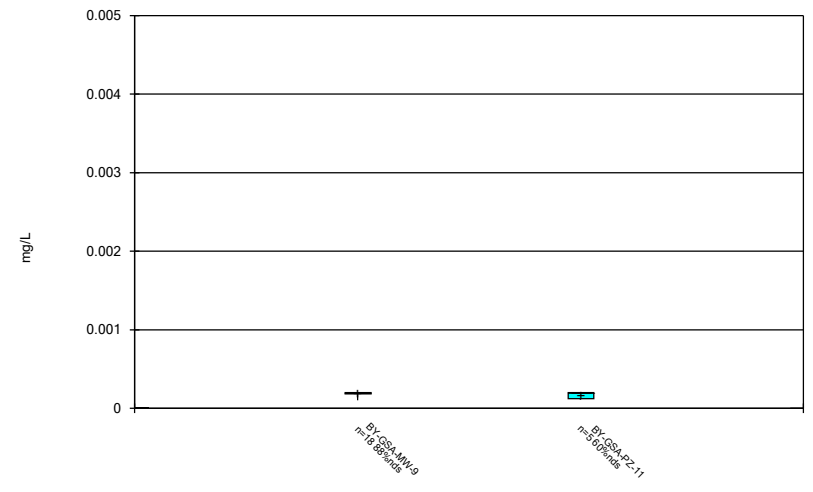
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Box & Whiskers Plot



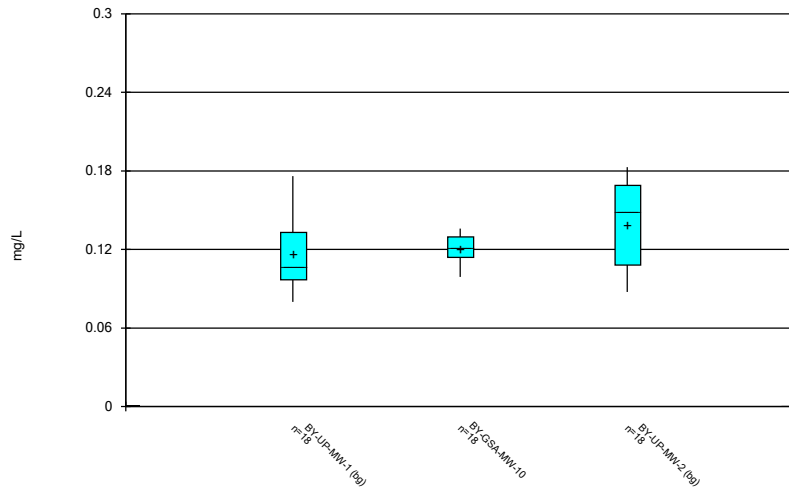
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Box & Whiskers Plot



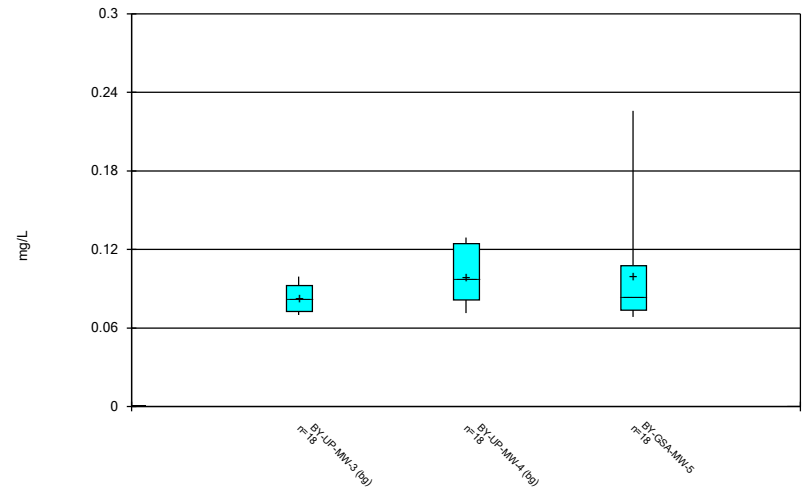
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Box & Whiskers Plot



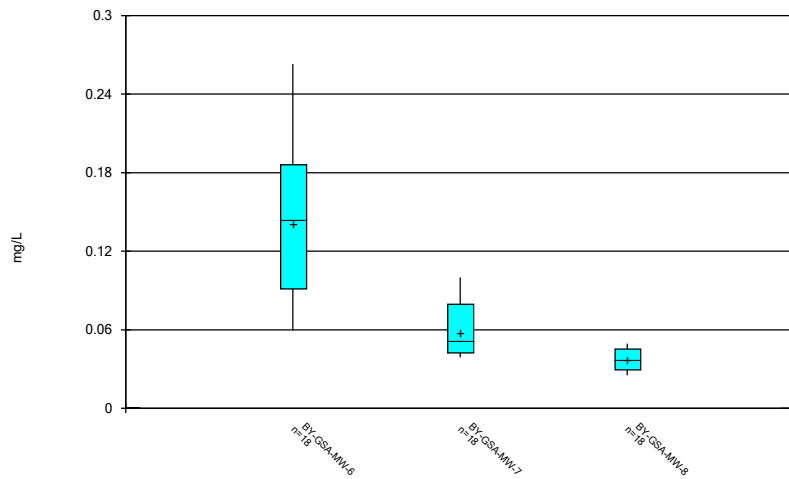
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Box & Whiskers Plot



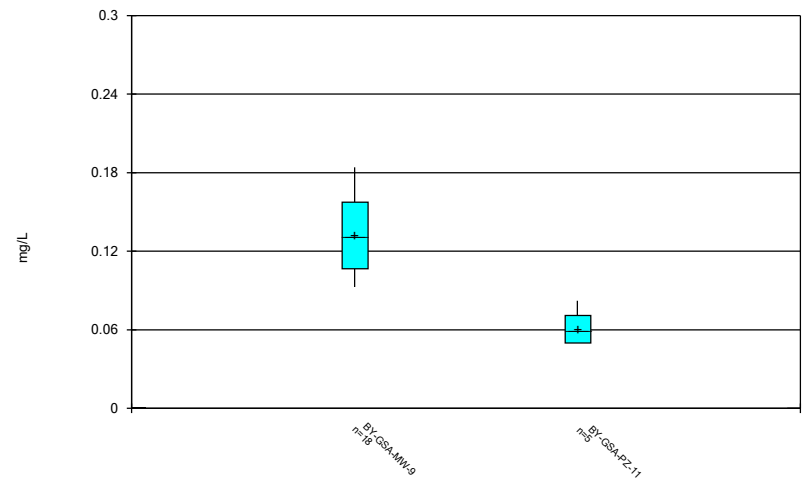
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Box & Whiskers Plot



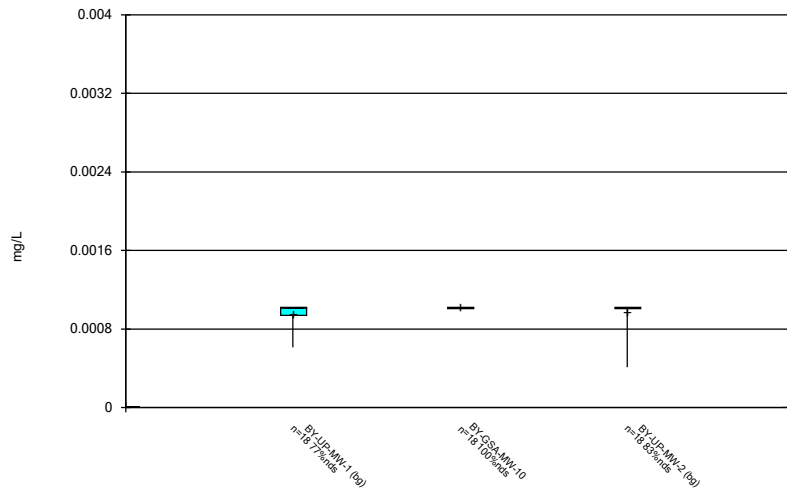
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Box & Whiskers Plot



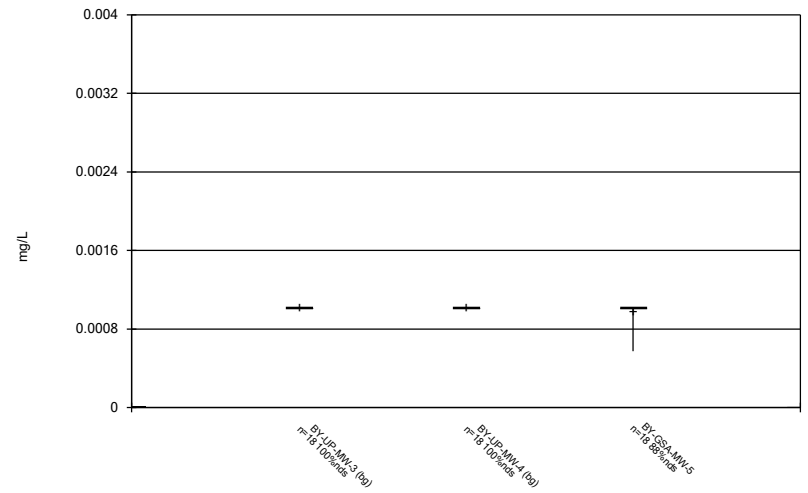
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Box & Whiskers Plot



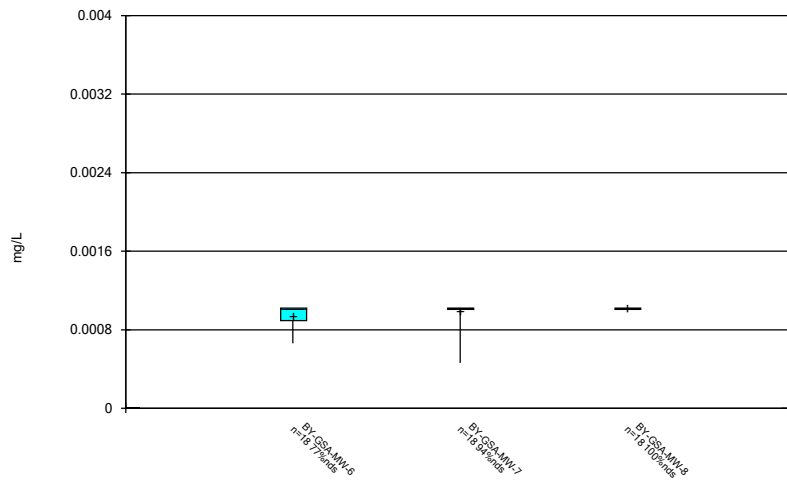
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Box & Whiskers Plot



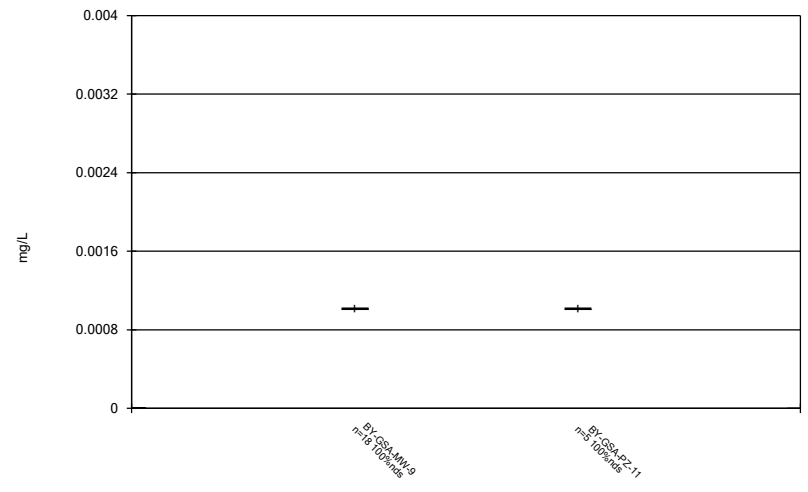
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Box & Whiskers Plot



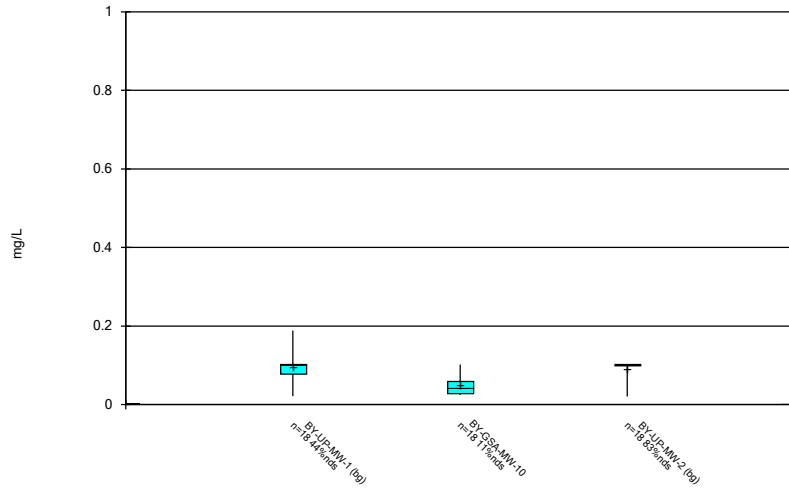
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Box & Whiskers Plot



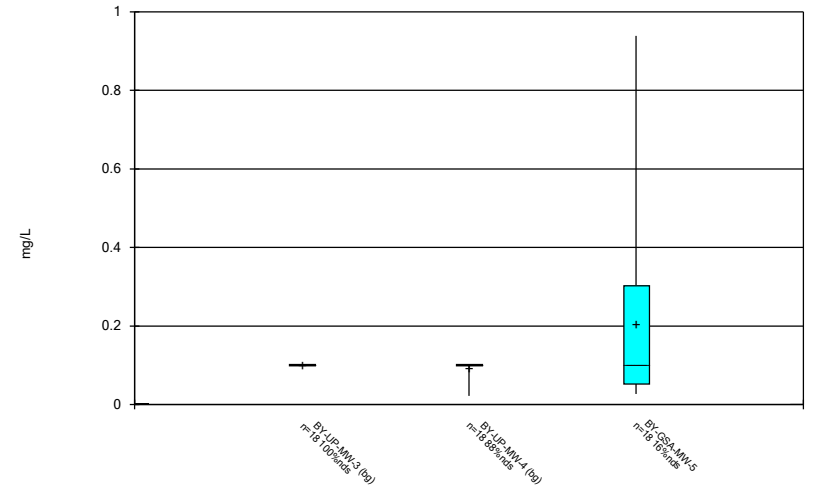
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Box & Whiskers Plot



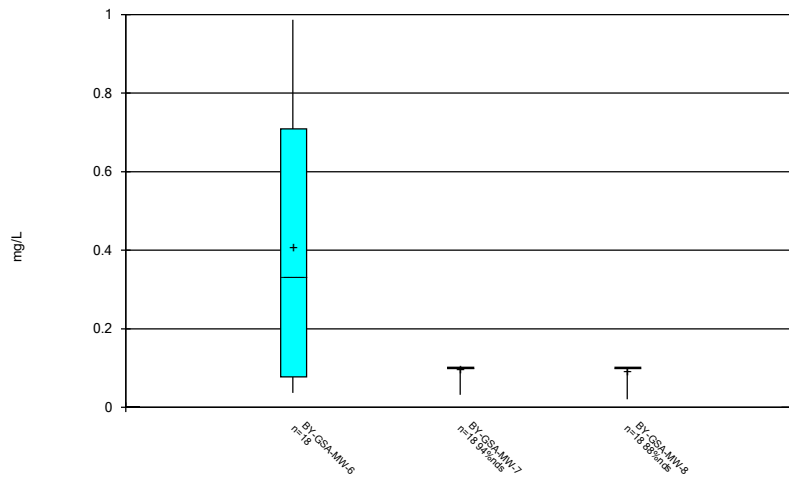
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Box & Whiskers Plot



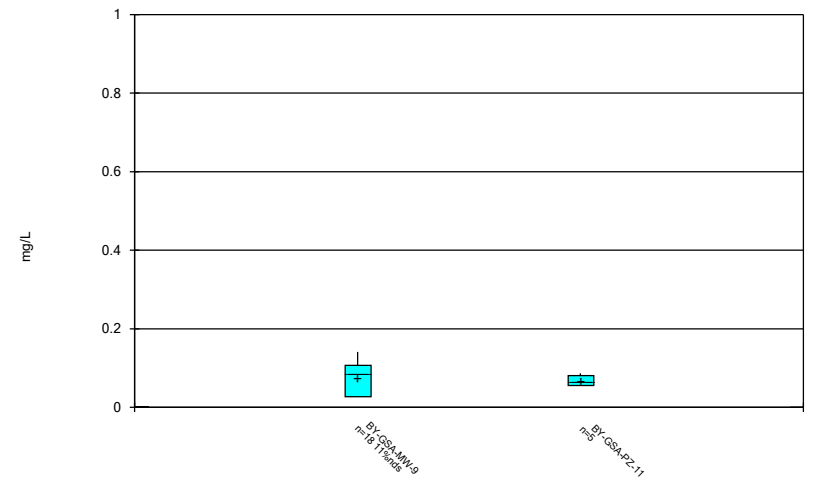
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Box & Whiskers Plot



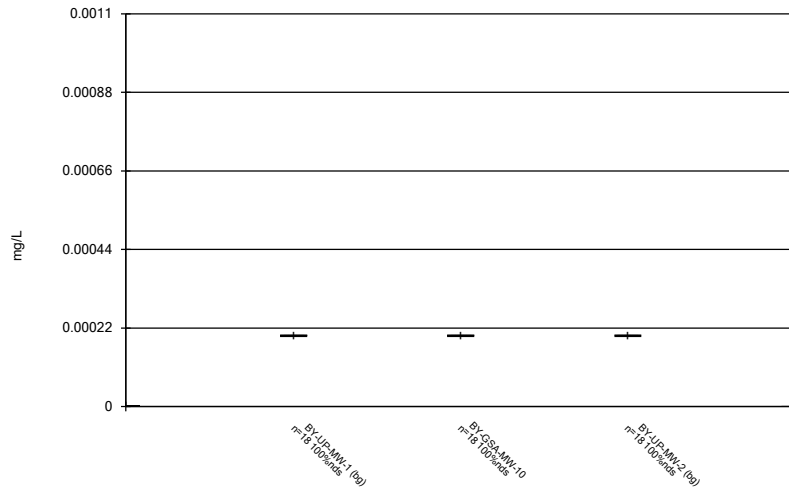
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Box & Whiskers Plot



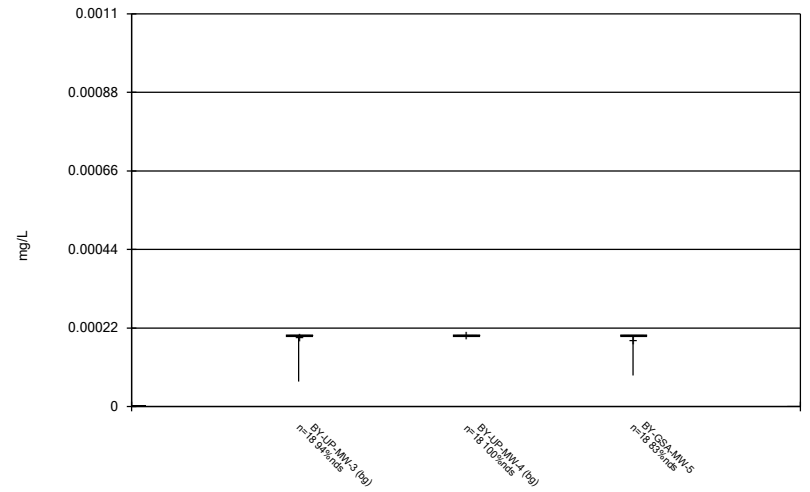
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Box & Whiskers Plot



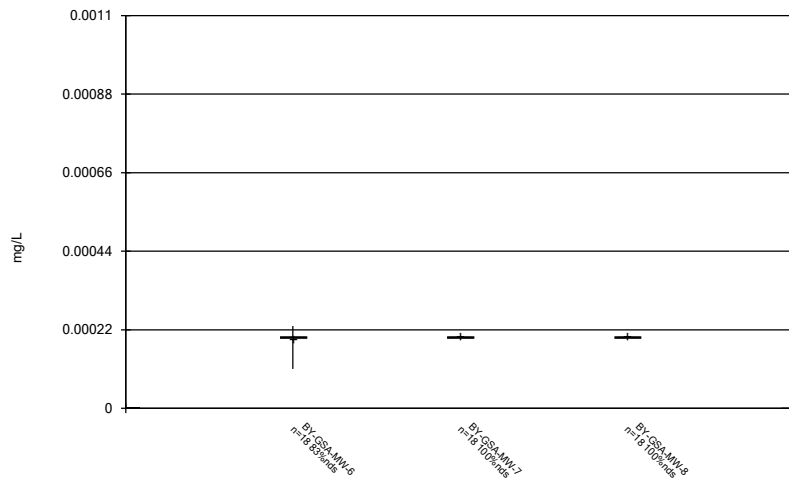
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Box & Whiskers Plot



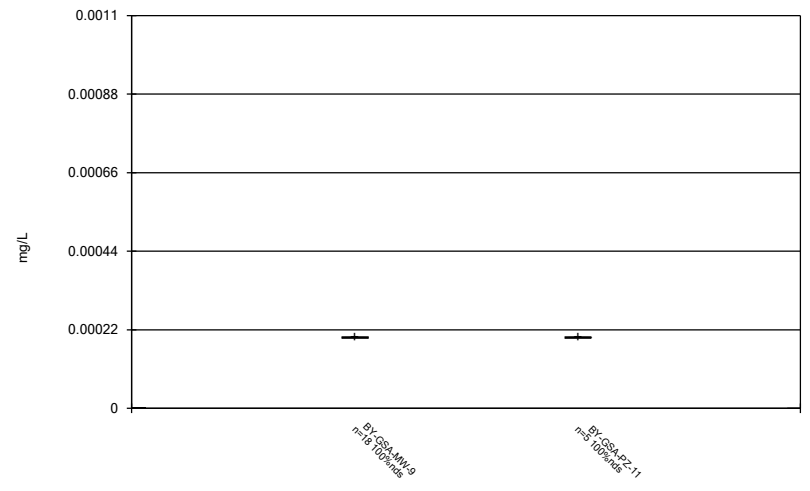
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Box & Whiskers Plot



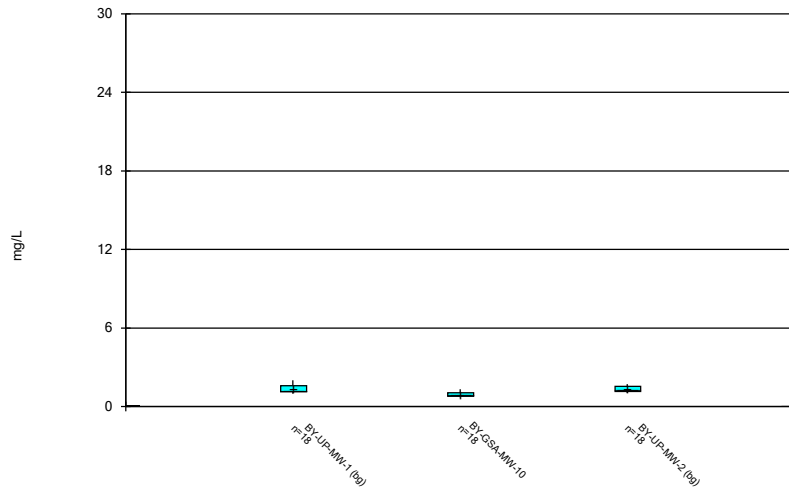
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Box & Whiskers Plot



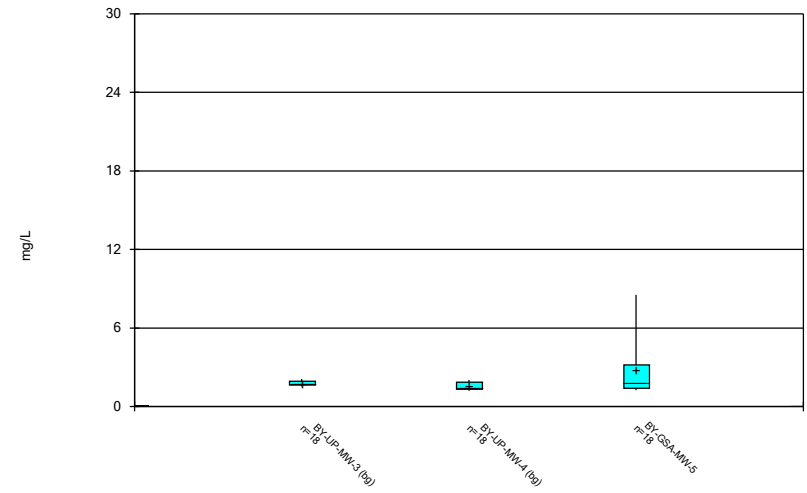
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Box & Whiskers Plot



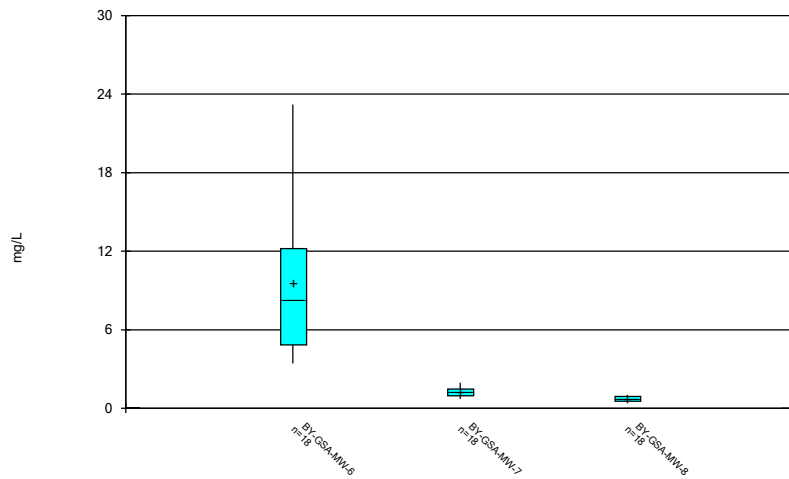
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Box & Whiskers Plot



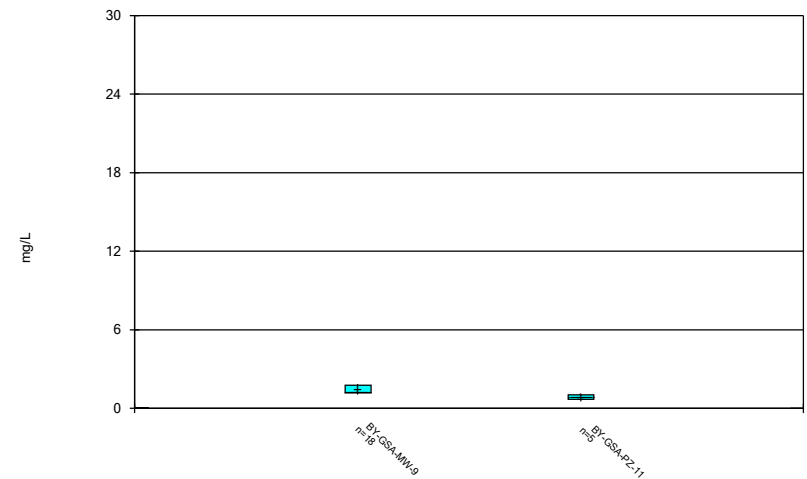
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Box & Whiskers Plot



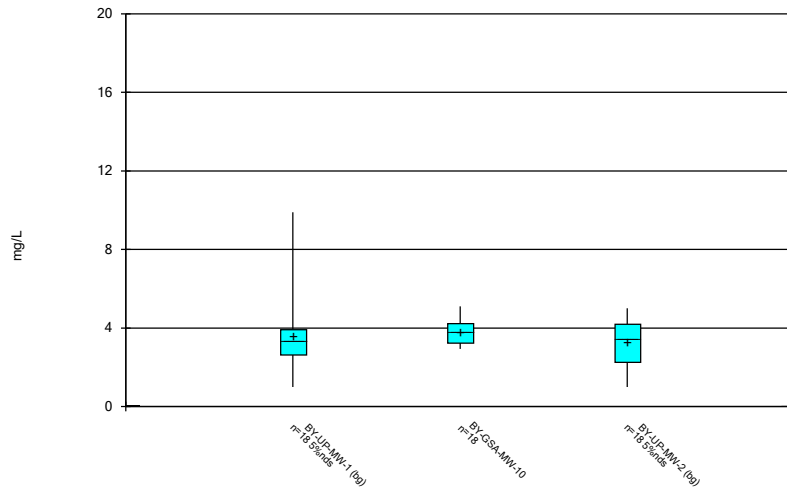
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Box & Whiskers Plot



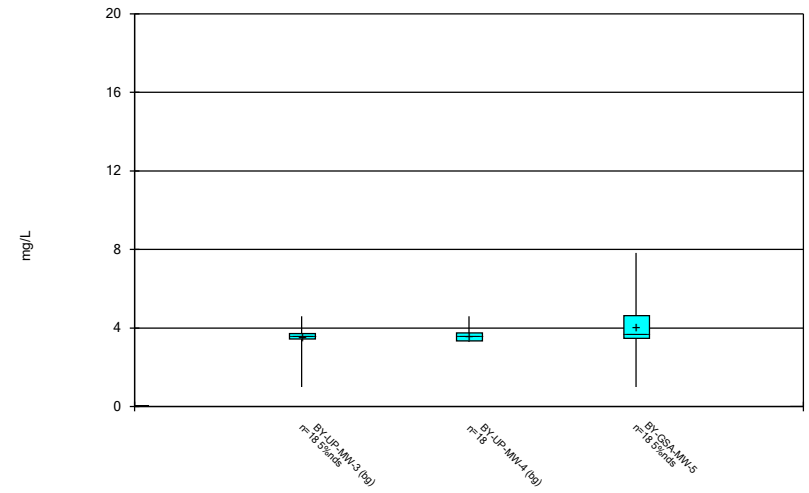
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Box & Whiskers Plot



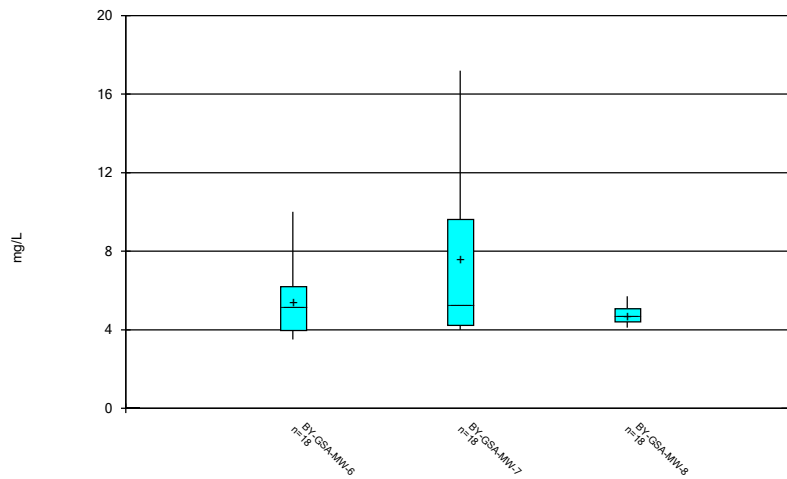
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Box & Whiskers Plot



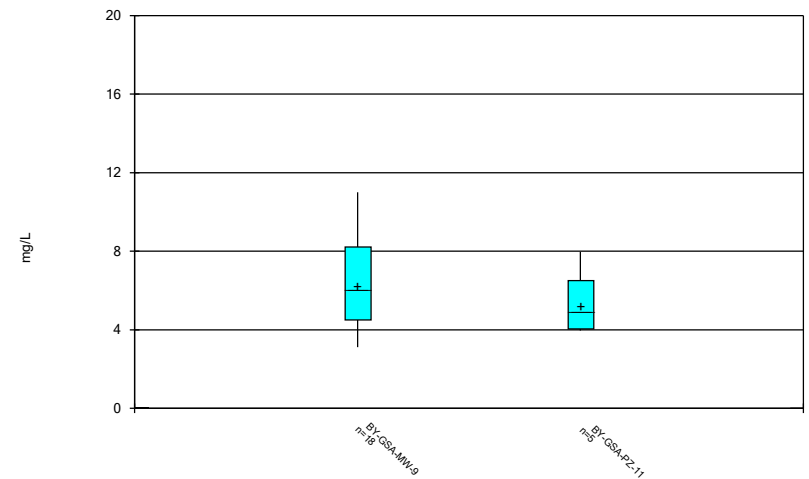
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Box & Whiskers Plot



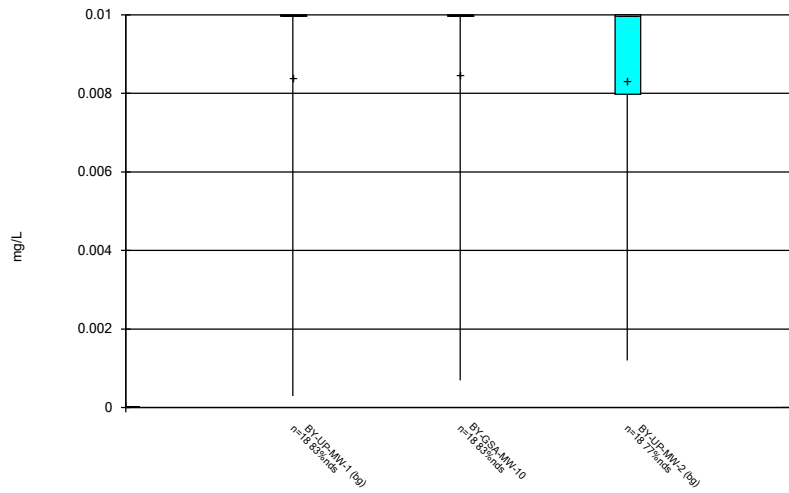
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Box & Whiskers Plot



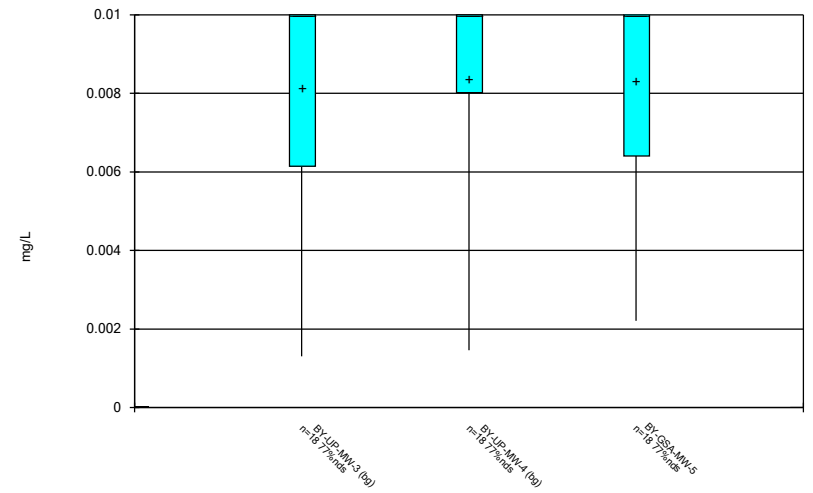
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Box & Whiskers Plot



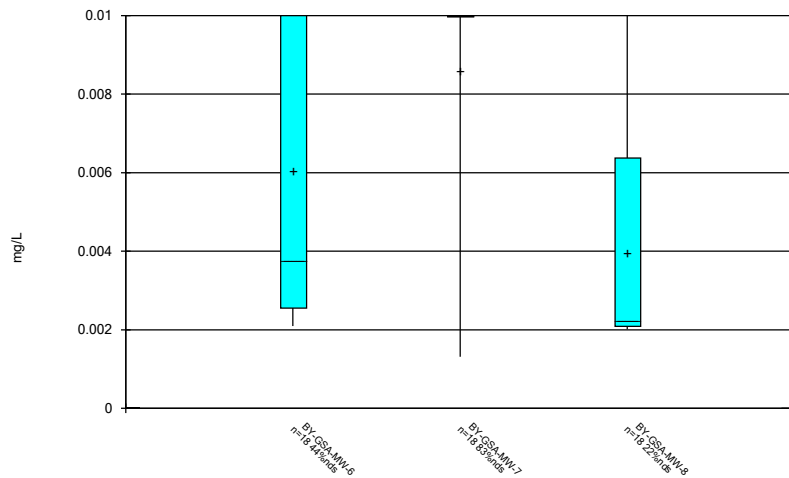
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Box & Whiskers Plot



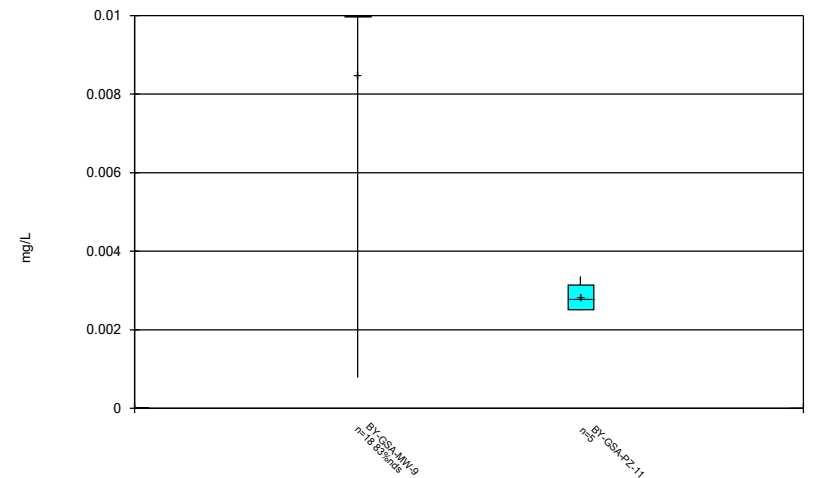
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Box & Whiskers Plot



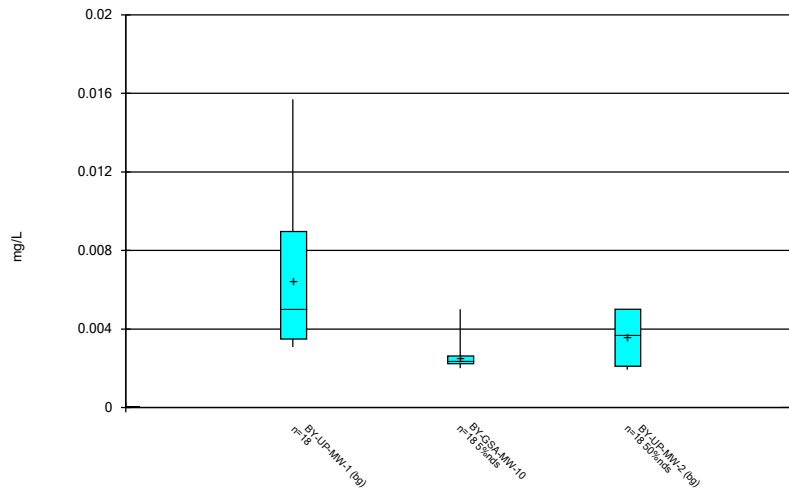
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Box & Whiskers Plot



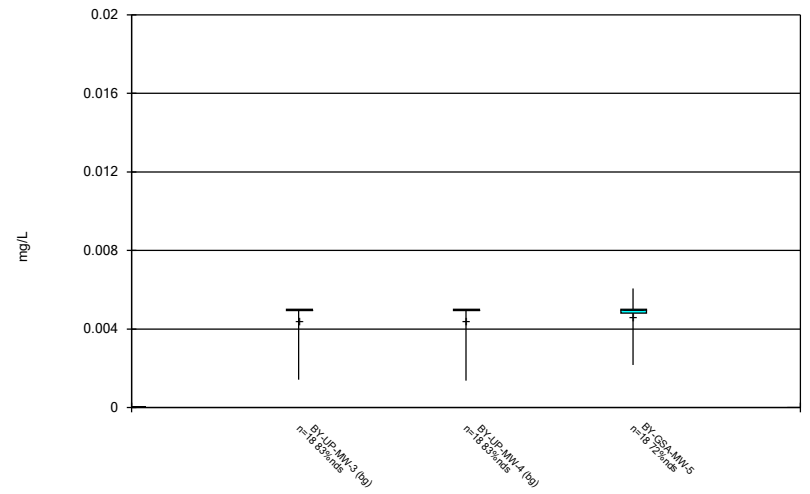
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Box & Whiskers Plot



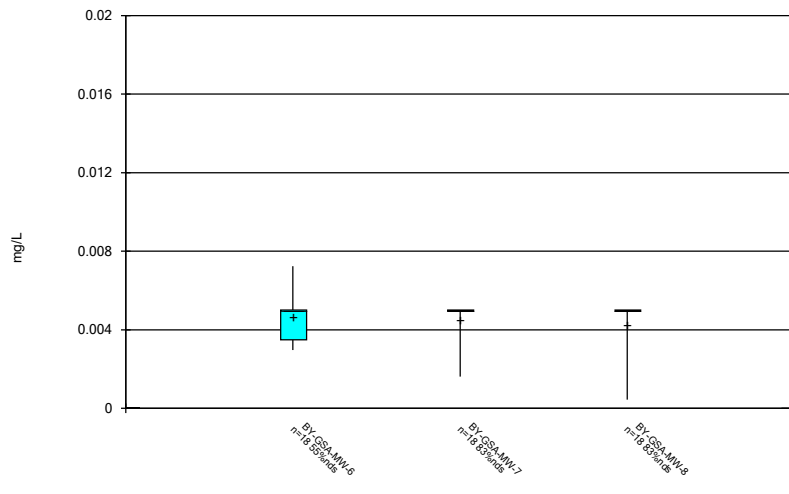
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



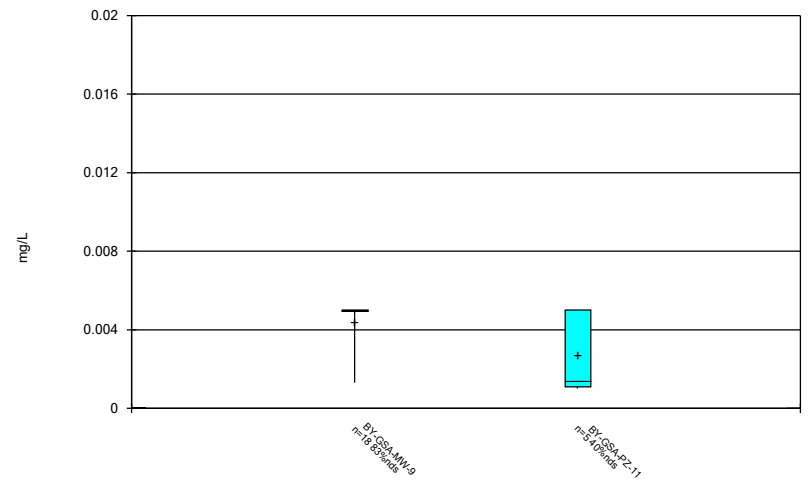
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Box & Whiskers Plot



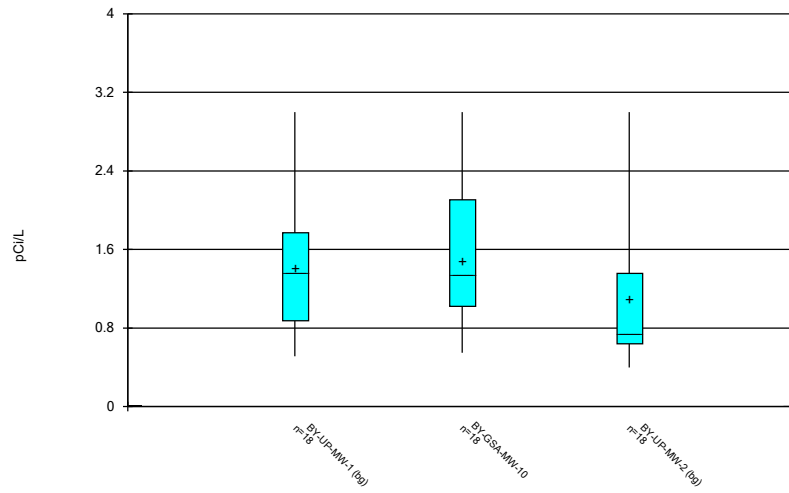
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Box & Whiskers Plot



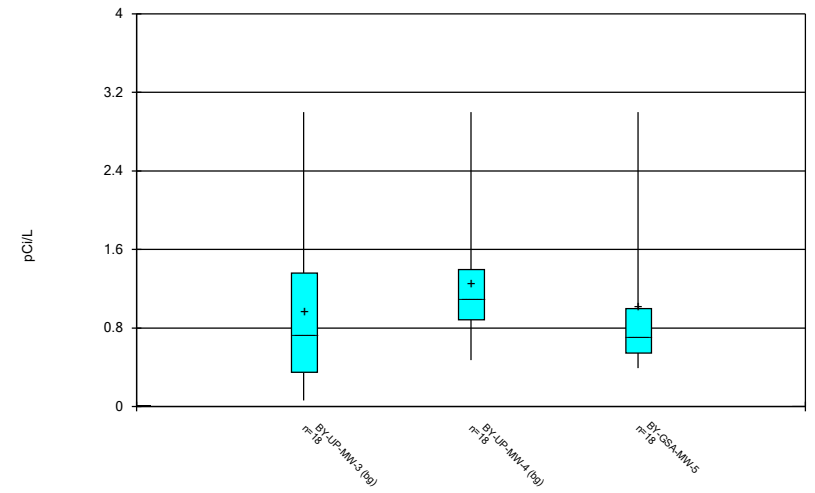
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Box & Whiskers Plot



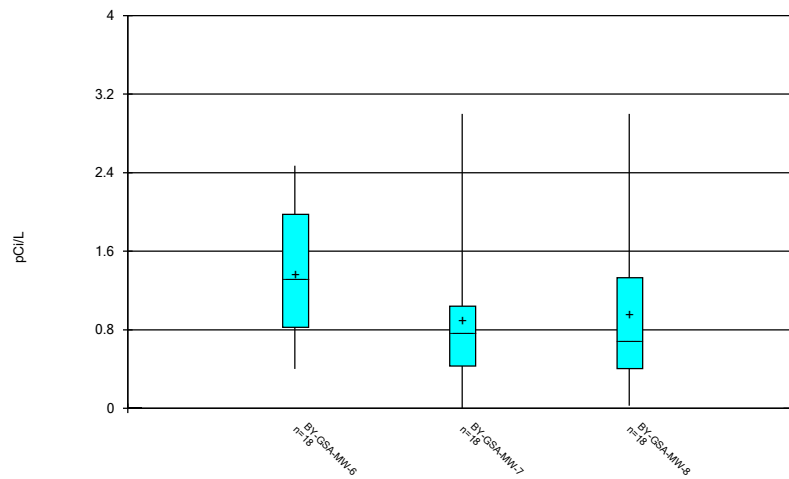
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



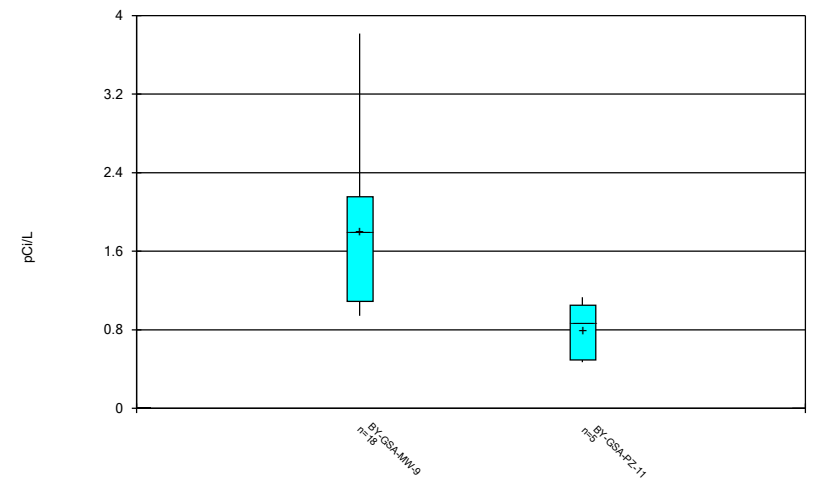
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



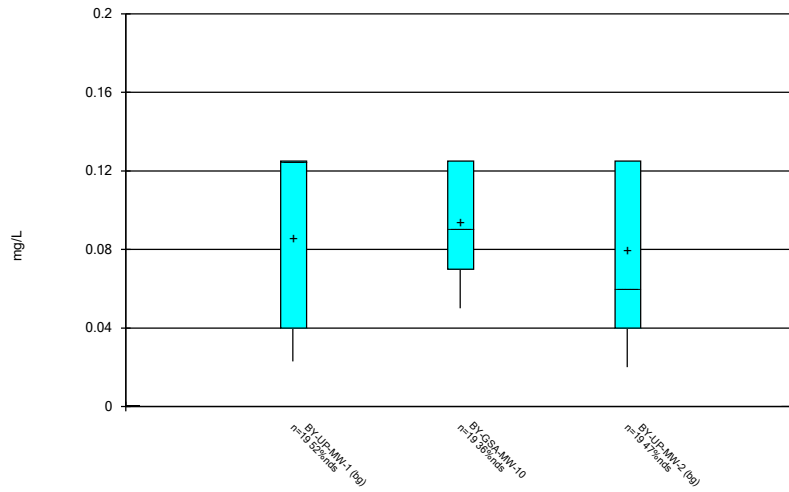
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



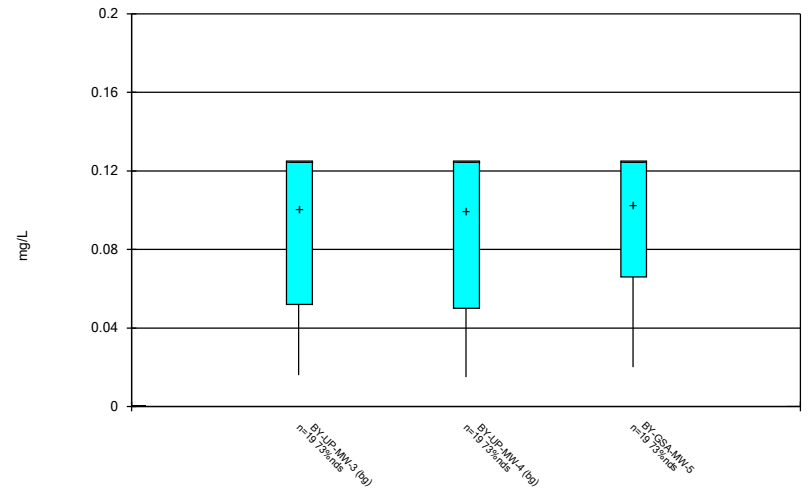
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



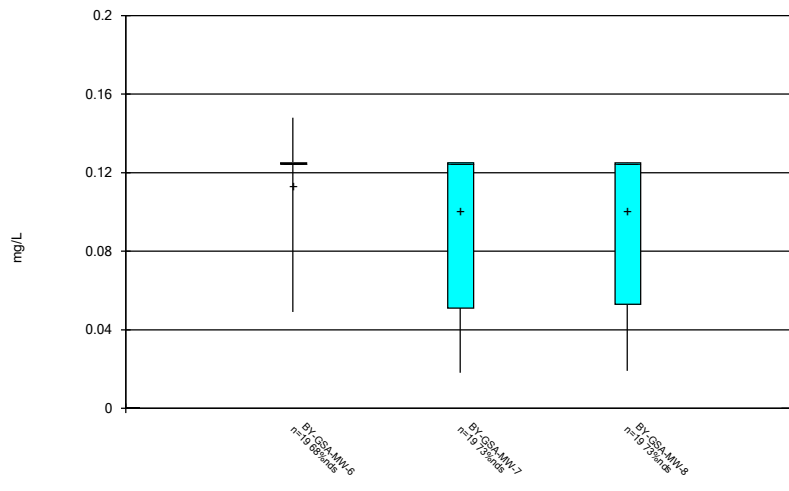
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



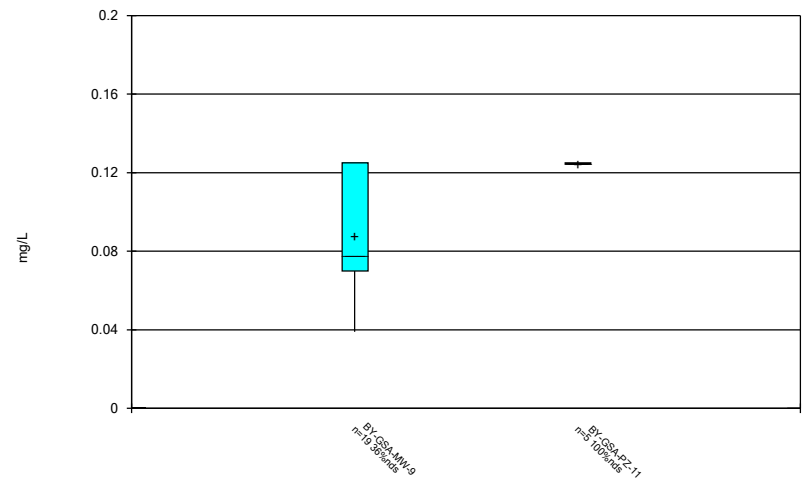
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



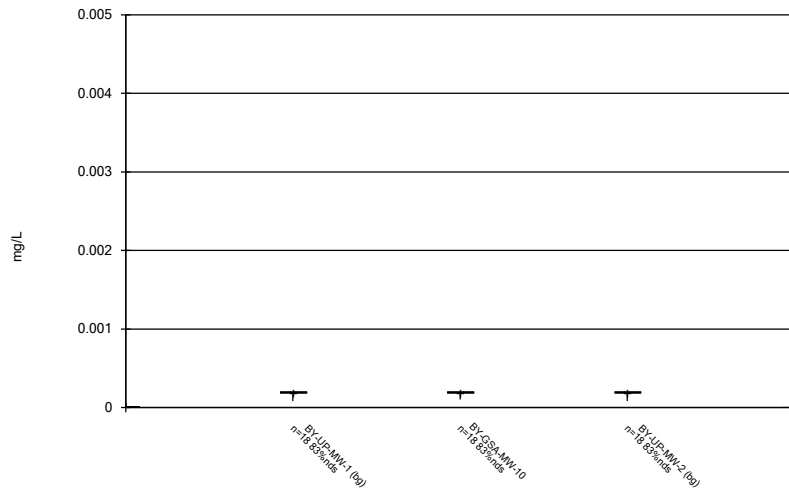
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Box & Whiskers Plot



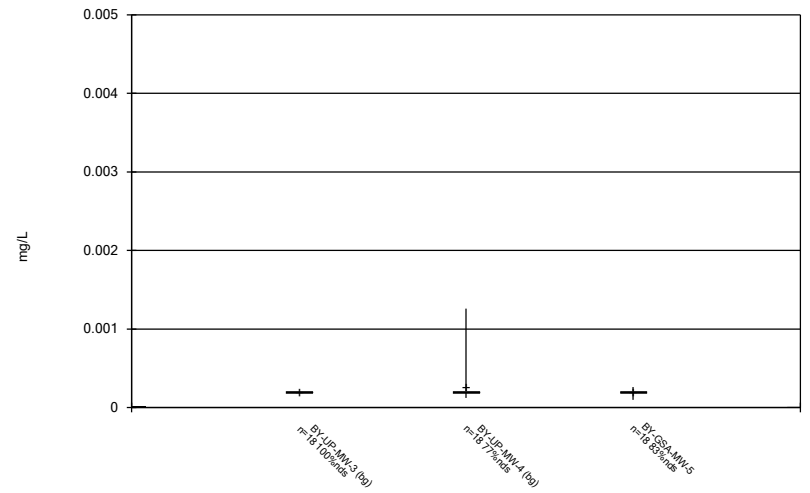
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Box & Whiskers Plot



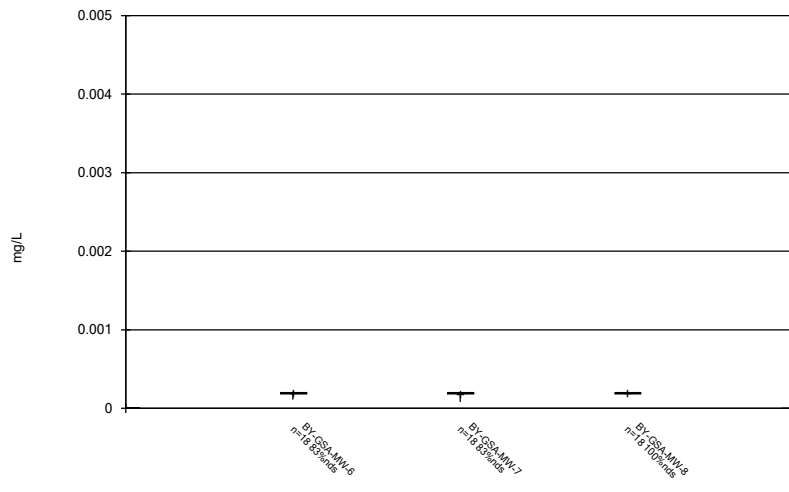
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



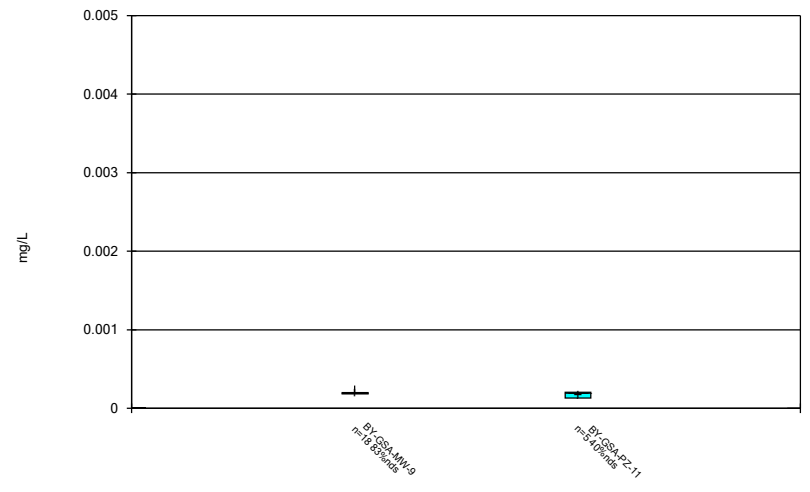
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



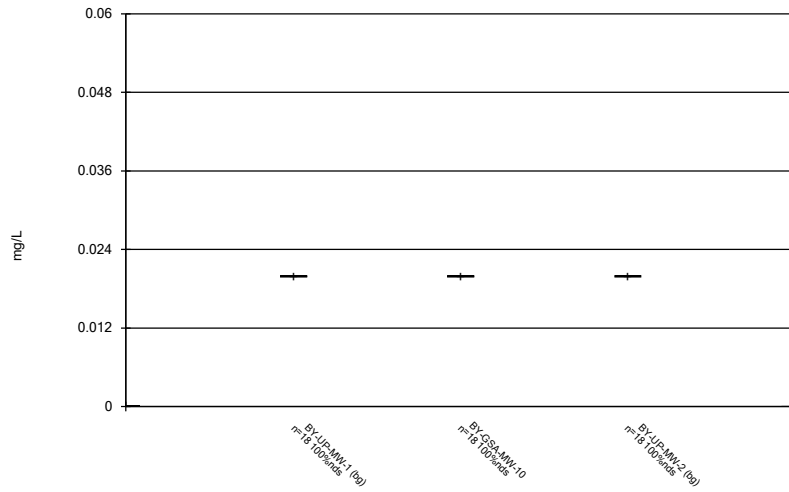
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



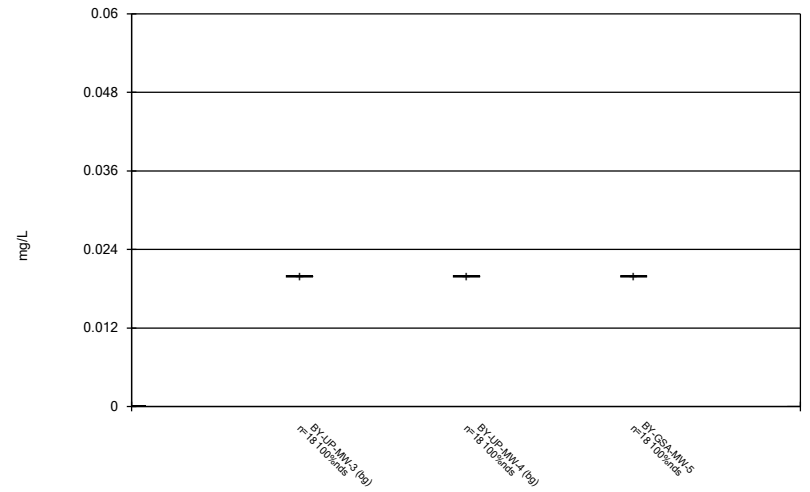
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



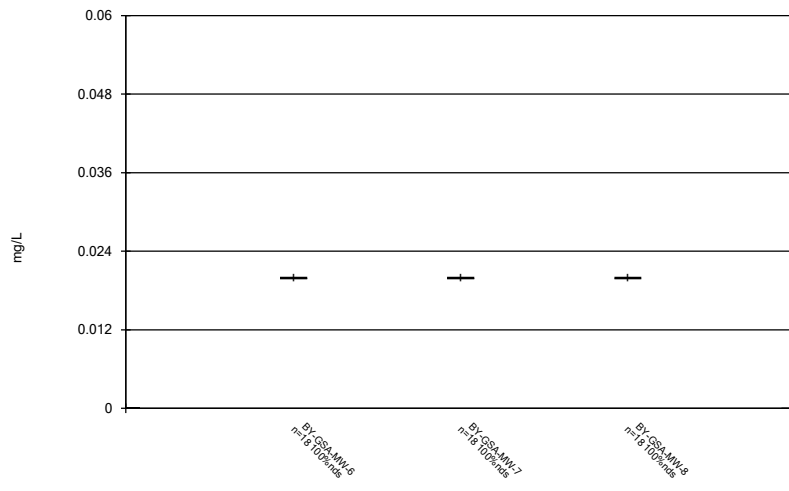
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



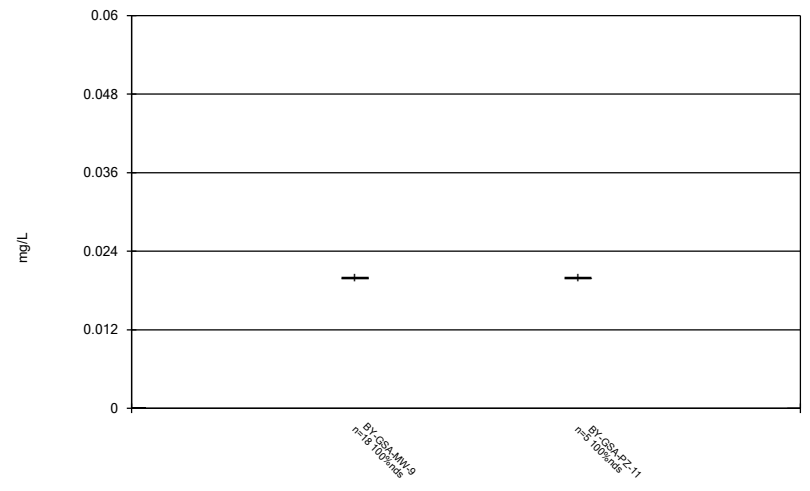
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



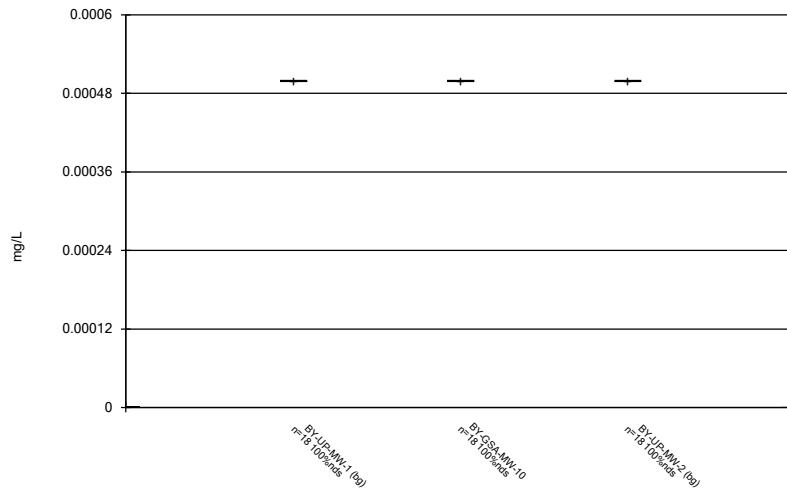
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



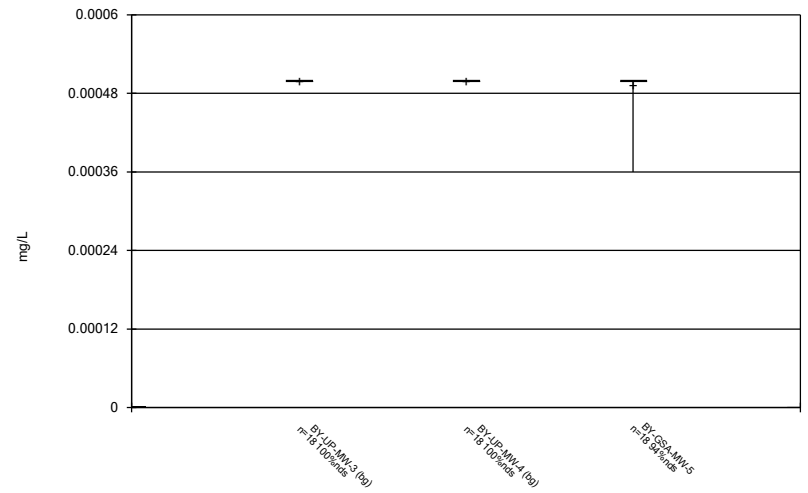
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Box & Whiskers Plot



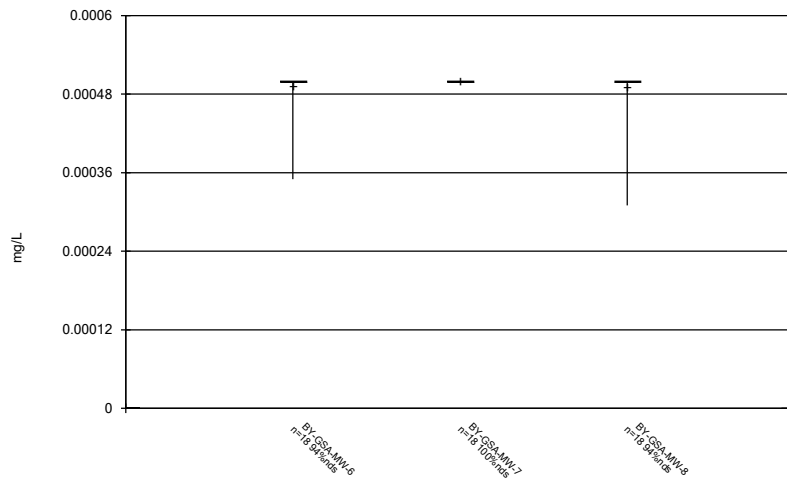
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



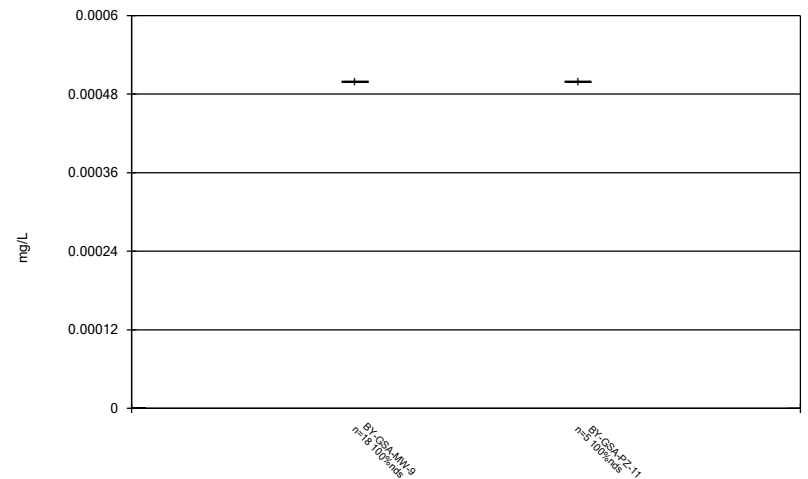
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Box & Whiskers Plot



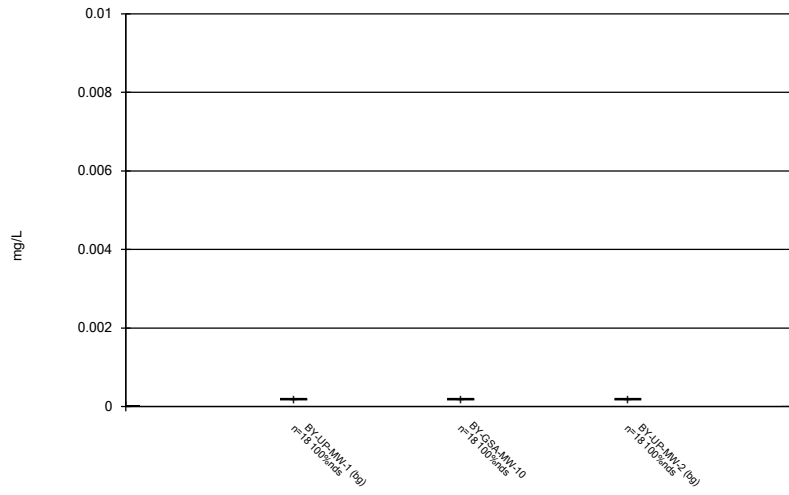
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



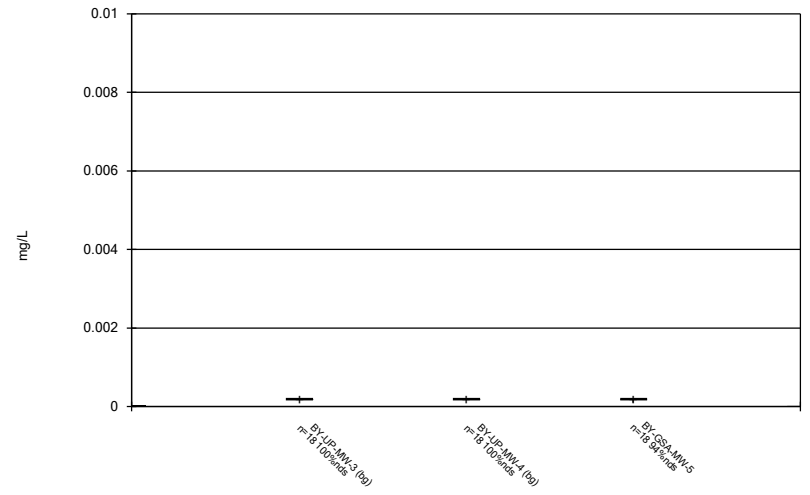
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



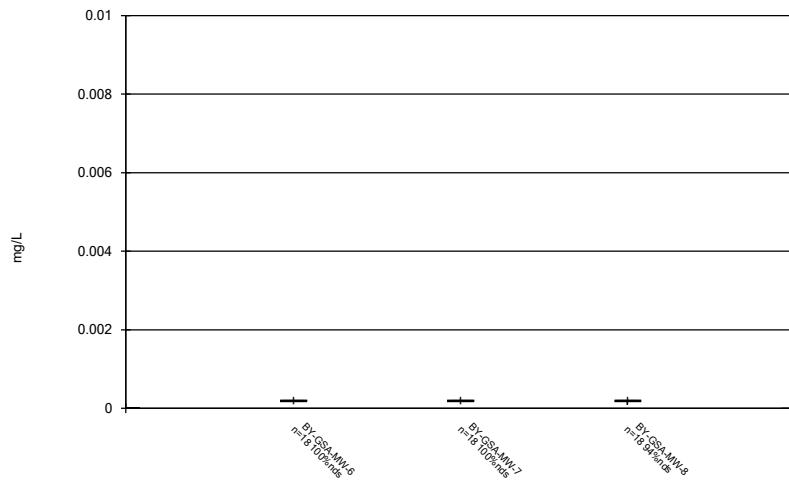
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Box & Whiskers Plot



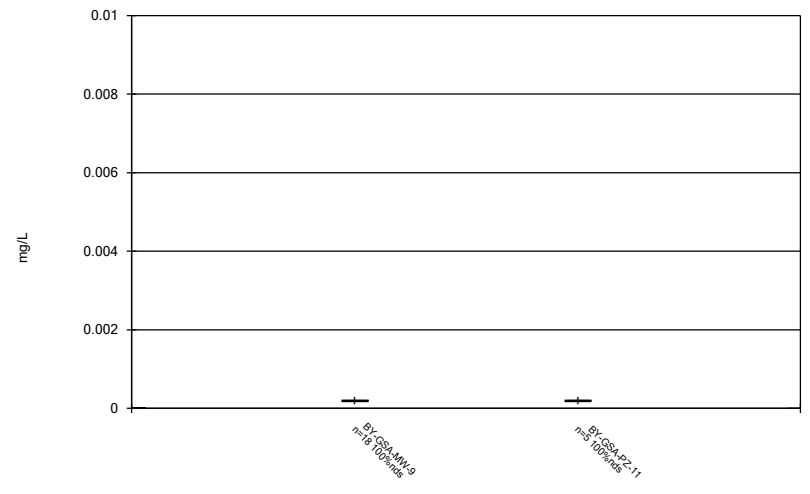
Constituent: Molybdenum Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



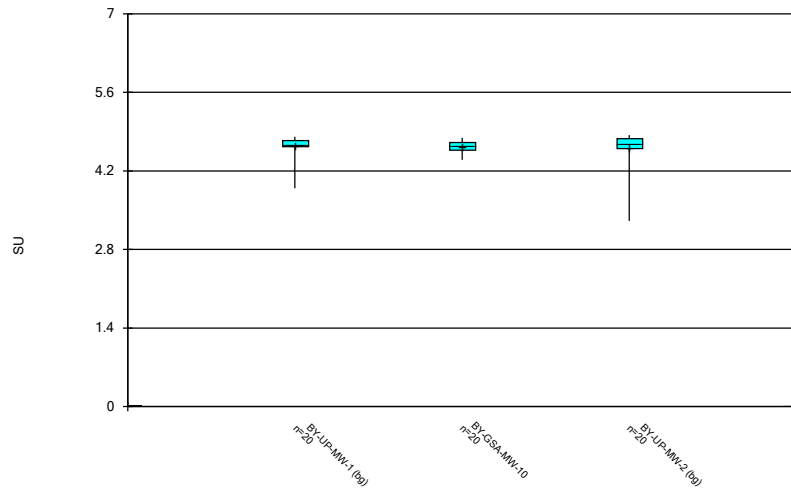
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



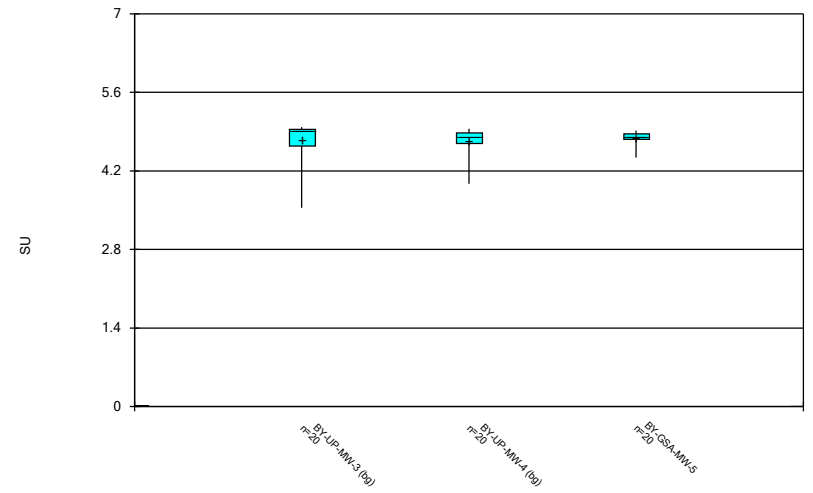
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



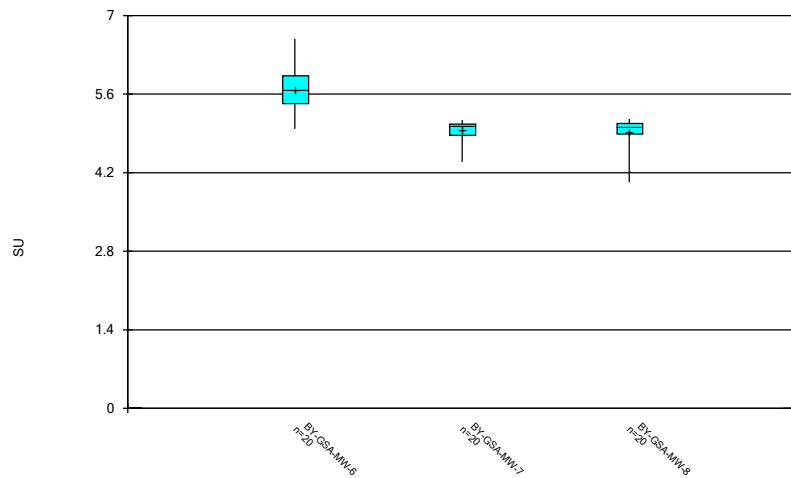
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



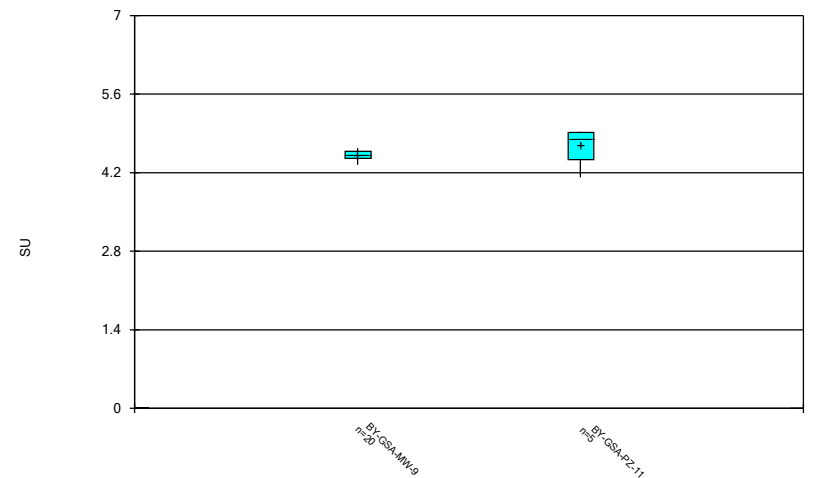
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



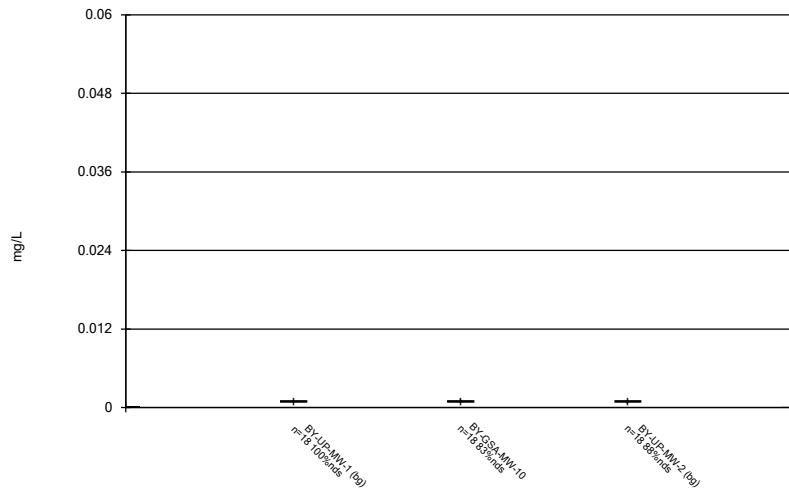
Constituent: pH, Field Analysis Run 7/26/2022 10:23 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



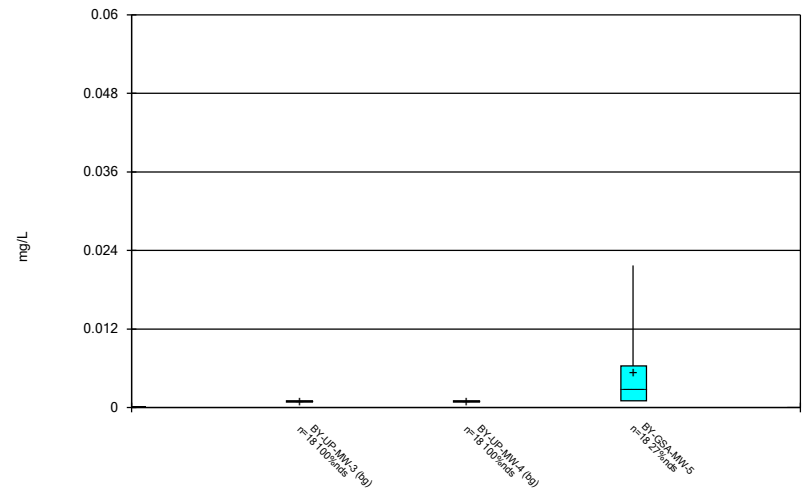
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



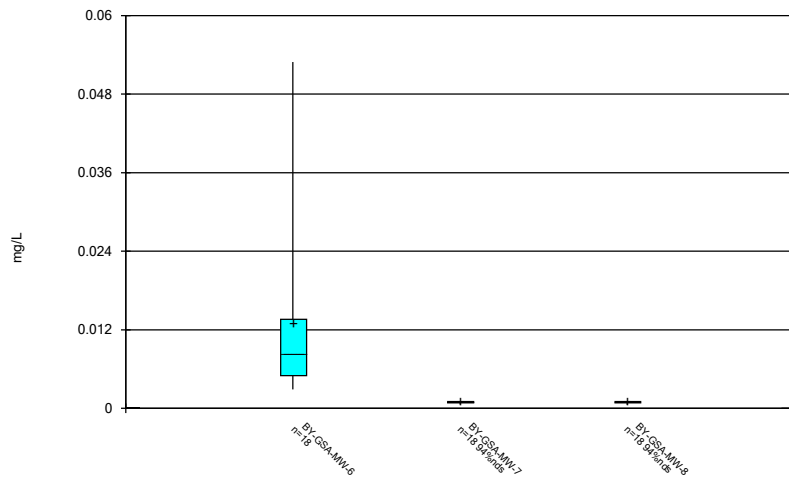
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



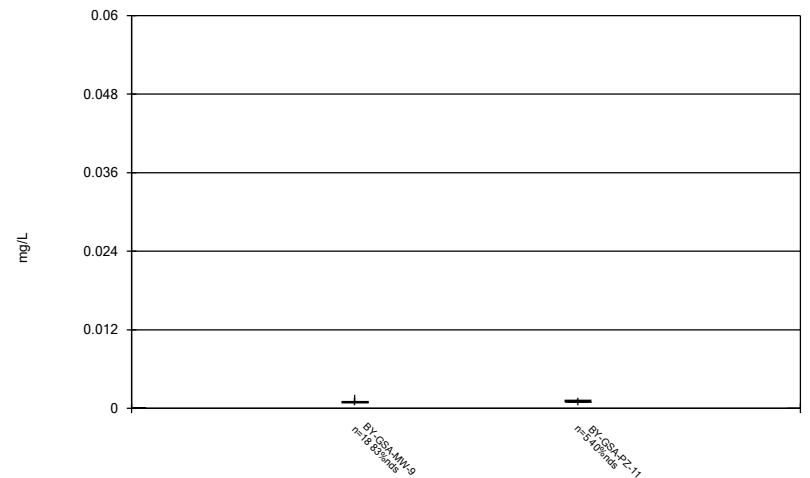
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Box & Whiskers Plot



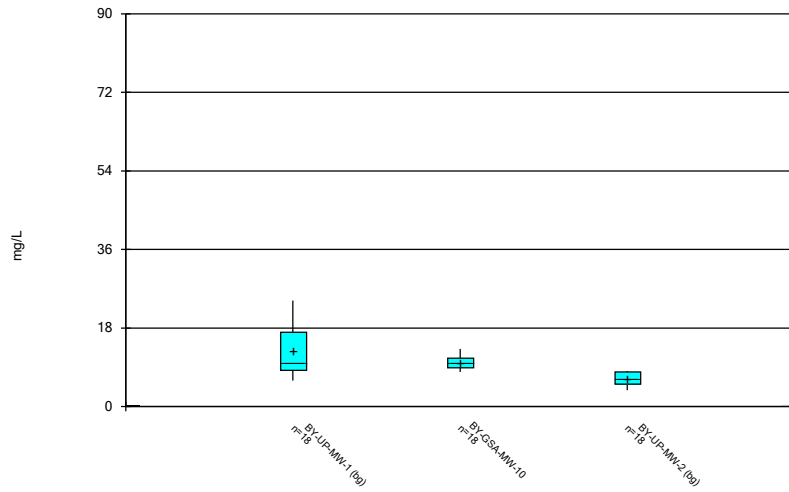
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



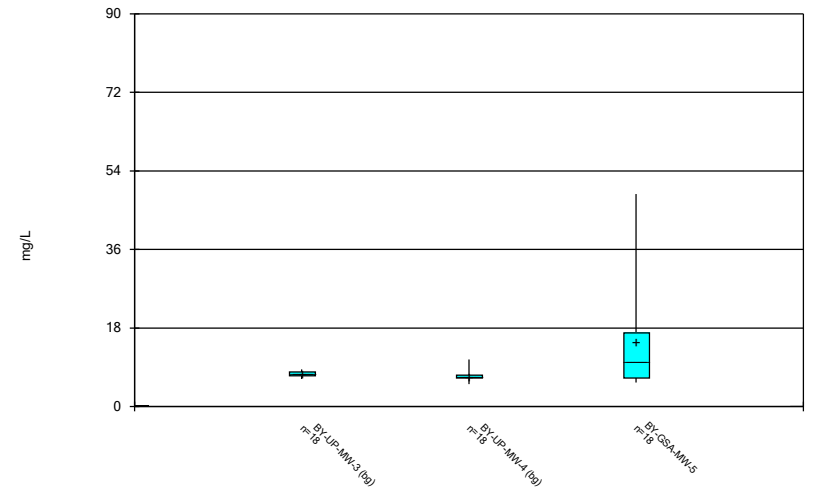
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Box & Whiskers Plot



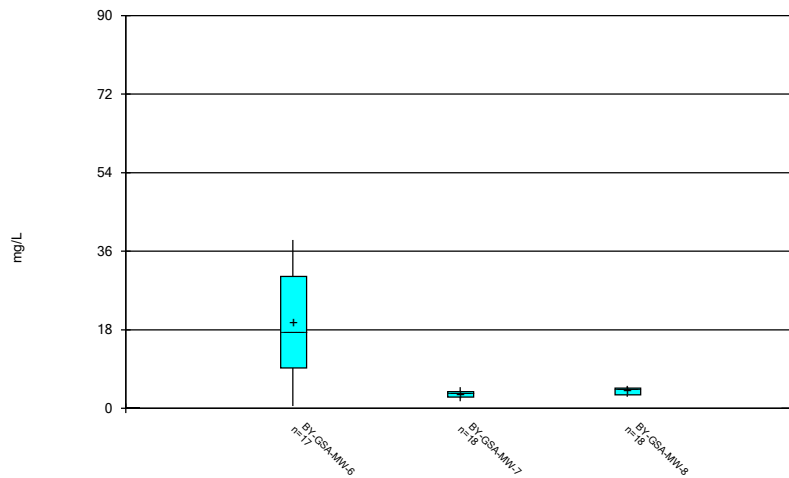
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



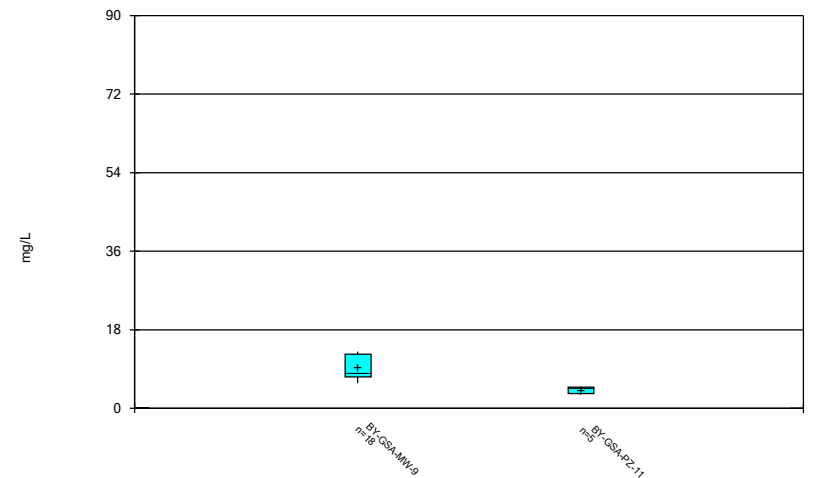
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



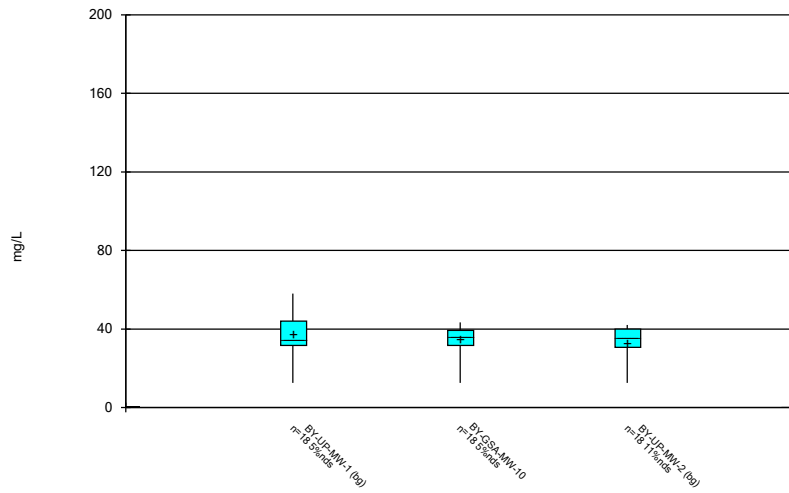
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



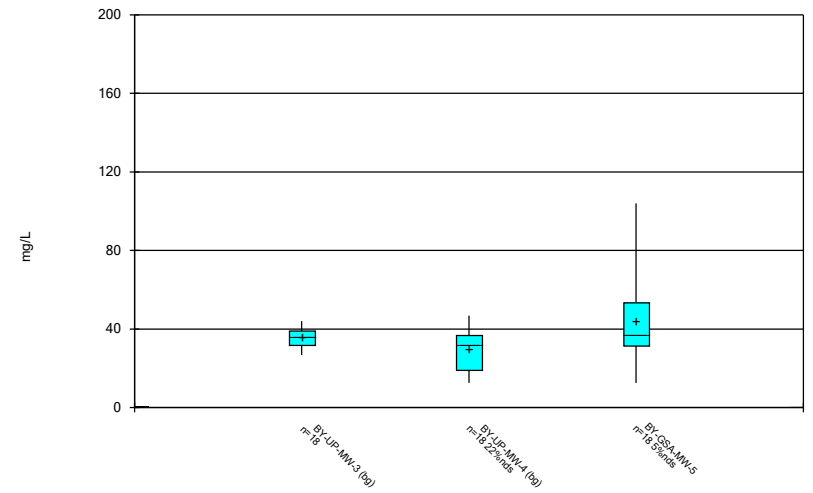
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



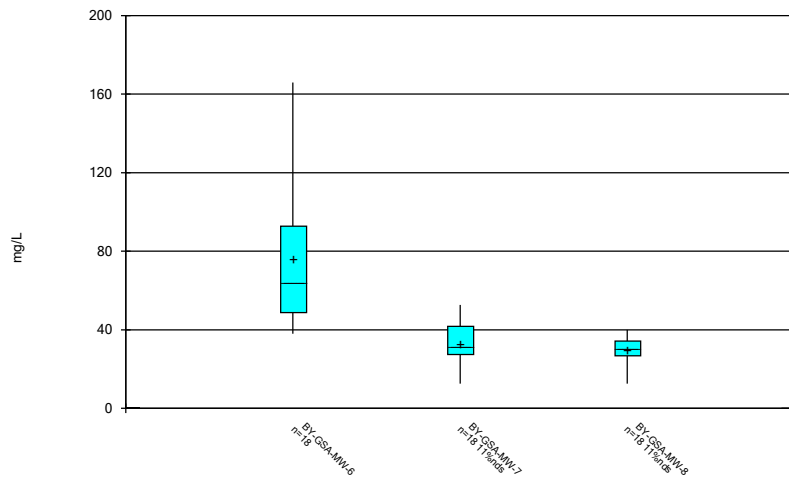
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



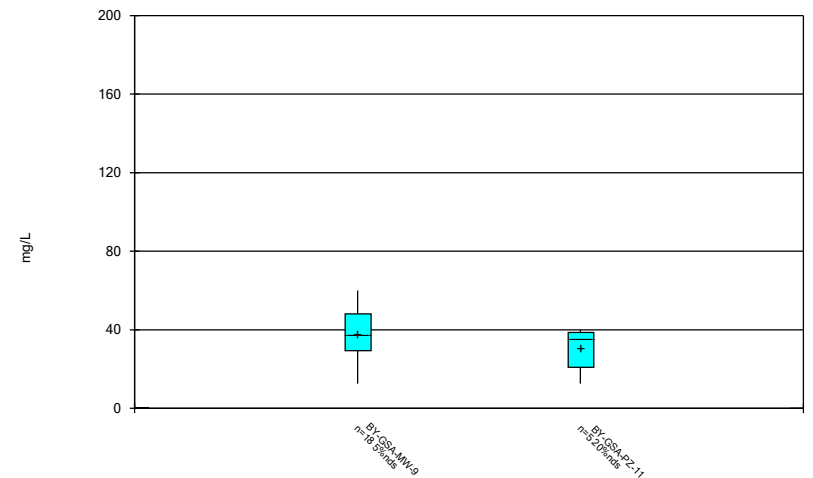
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



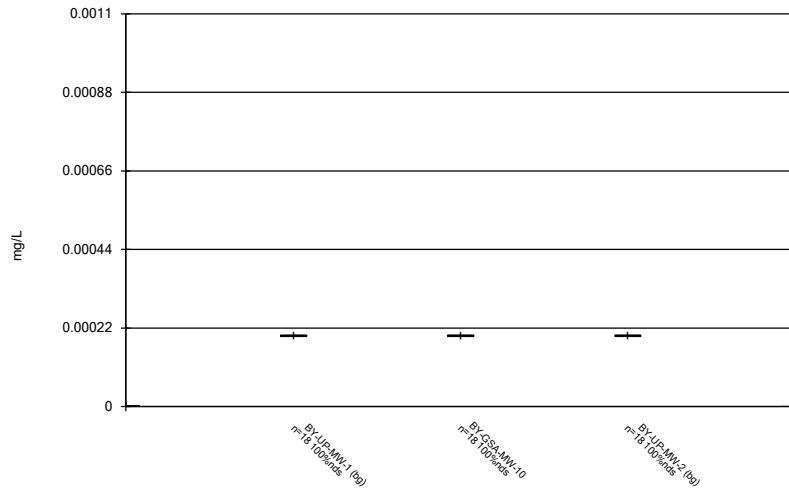
Constituent: TDS Analysis Run 7/26/2022 10:24 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



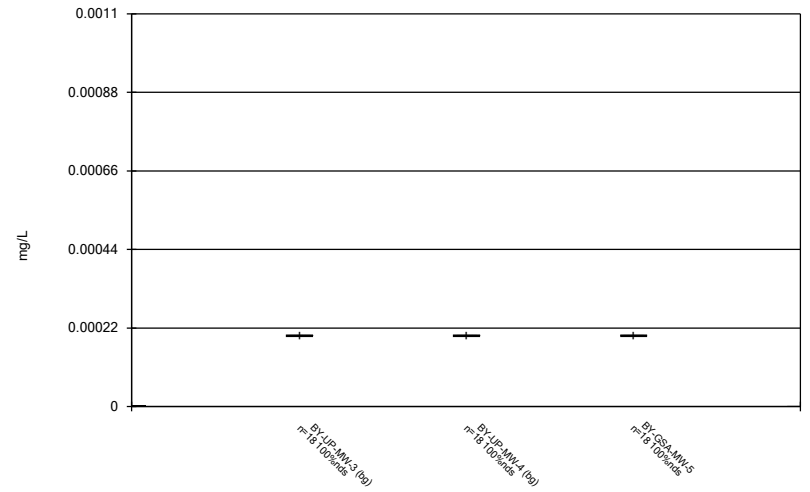
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



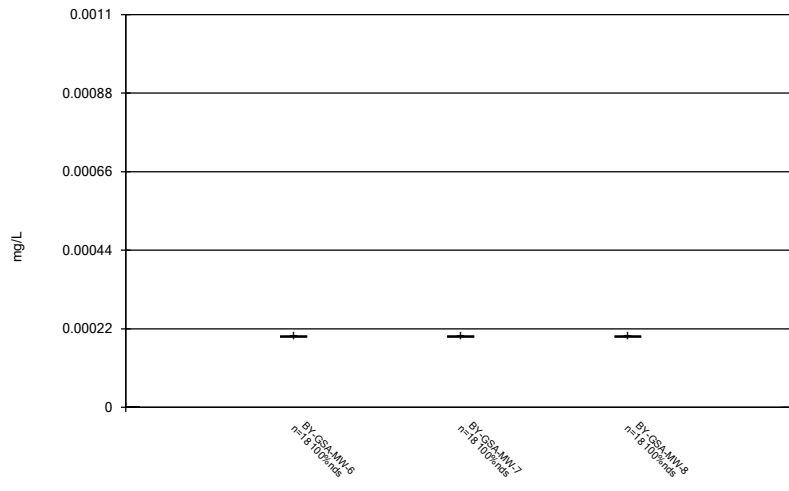
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



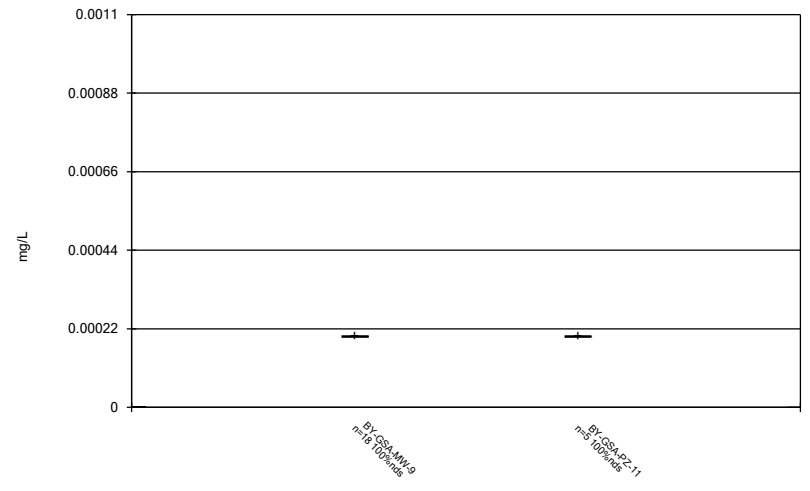
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/26/2022 10:24 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/26/2022 10:24 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/20/2022, 3:56 PM

BY-GSA-MW-6 Sulfate (mg/L)

4/18/2016

80.2 (O)

FIGURE D.

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg. N	Bg. Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	5/31/2022	7.83	Yes	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	5/31/2022	48.7	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2

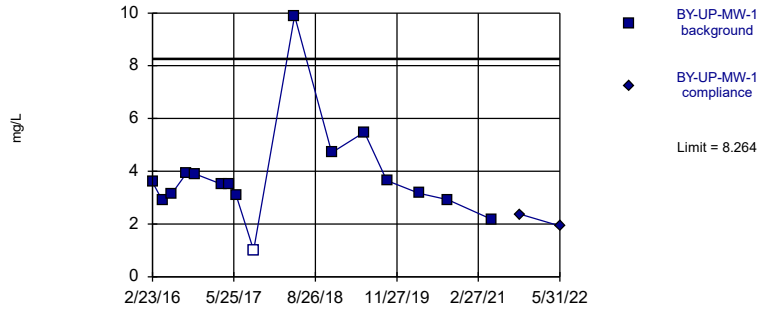
Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-UP-MW-1	8.264	n/a	5/31/2022	1.93	No	16	1.897	0.4435	6.25	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	6/1/2022	3.35	No	16	3.79	0.6038	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.698	n/a	5/31/2022	2.17	No	16	3.416	1.035	6.25	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	5/31/2022	3.39	No	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	5/31/2022	3.31	No	16	1.912	0.08933	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	5/31/2022	7.83	Yes	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	5/31/2022	7.22	No	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	6/1/2022	14.7	No	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	6/1/2022	5.38	No	16	4.673	0.412	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	6/1/2022	4.29	No	16	6.335	2.163	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	5/31/2022	12.8	No	16	3.458	0.85	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	6/1/2022	11.4	No	16	9.999	1.445	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	5/31/2022	8.09	No	16	6.282	1.406	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	5/31/2022	7.02	No	16	7.496	0.6224	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	5/31/2022	7.94	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	5/31/2022	48.7	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	5/31/2022	38.6	No	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	6/1/2022	3.4	No	16	3.349	0.8938	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	6/1/2022	5.11	No	16	3.852	0.8066	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	6/1/2022	13	No	16	8.877	2.273	0	None	No	0.001254	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

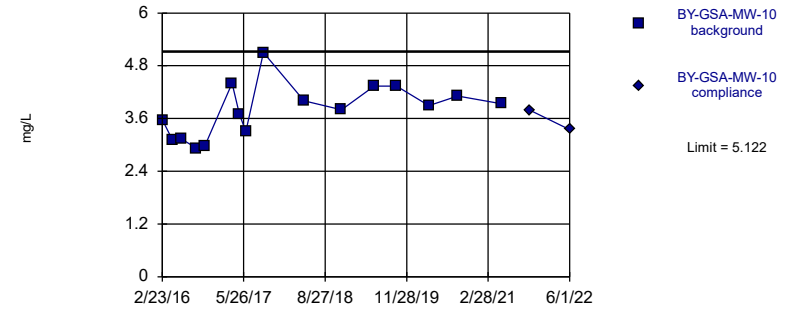


Background Data Summary (based on square root transformation): Mean=1.897, Std. Dev.=0.4435, n=16, 6.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8589, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

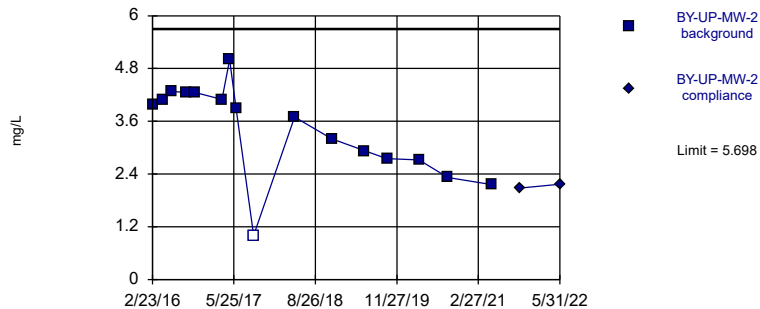


Background Data Summary: Mean=3.79, Std. Dev.=0.6038, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9569, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

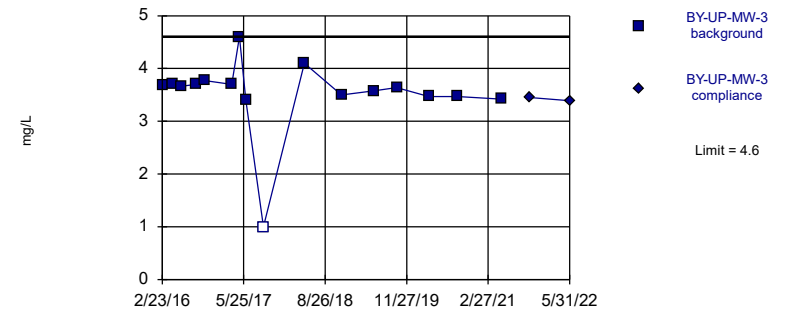


Background Data Summary: Mean=3.416, Std. Dev.=1.035, n=16, 6.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Non-parametric

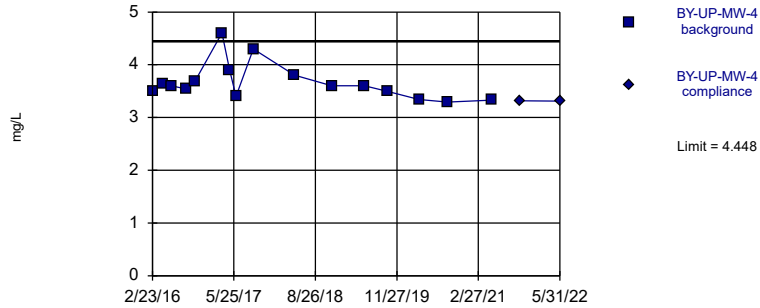


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

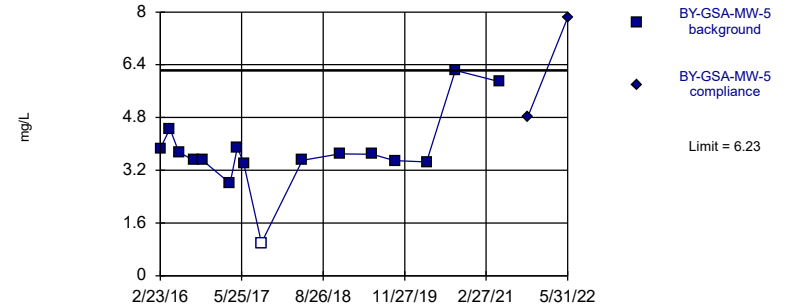
Prediction Limit
Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.912, Std. Dev.=0.08933, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8449, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit
Intrawell Non-parametric

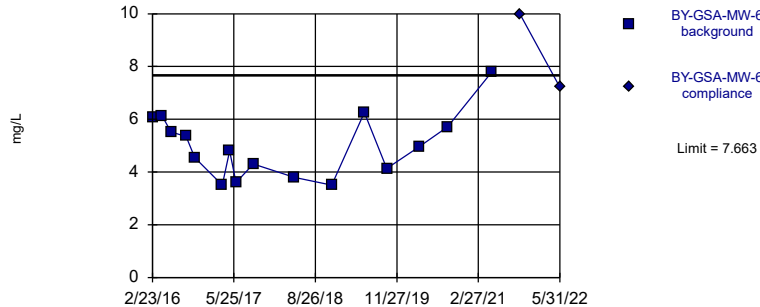


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

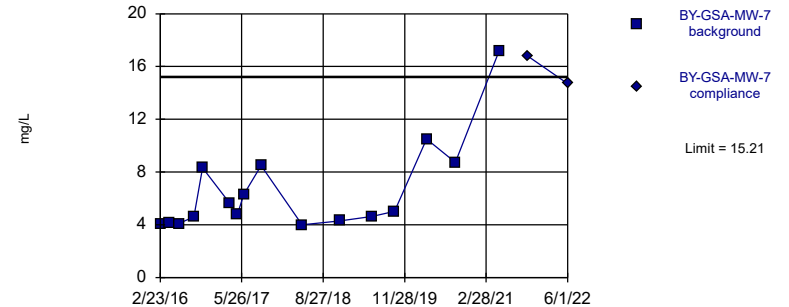


Background Data Summary: Mean=4.996, Std. Dev.=1.21, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

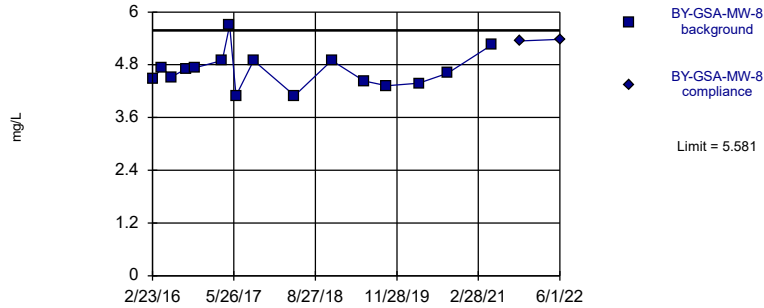


Background Data Summary (based on natural log transformation): Mean=1.782, Std. Dev.=0.4263, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8462, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

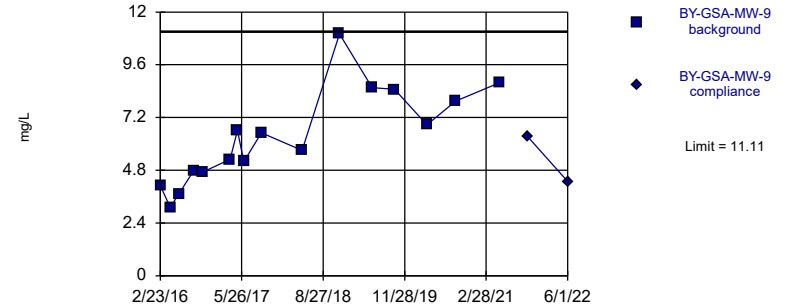


Background Data Summary: Mean=4.673, Std. Dev.=0.412, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9362, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

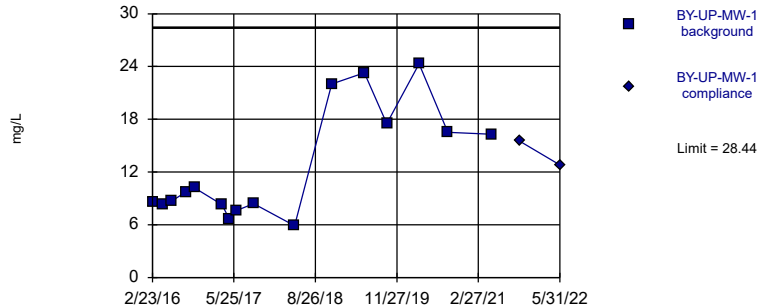


Background Data Summary: Mean=6.335, Std. Dev.=2.163, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9628, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

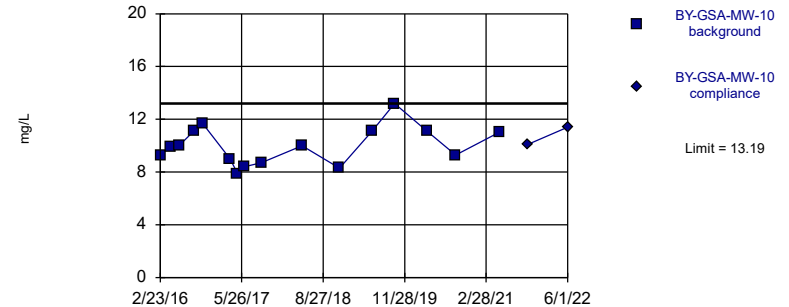


Background Data Summary (based on square root transformation): Mean=3.458, Std. Dev.=0.85, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

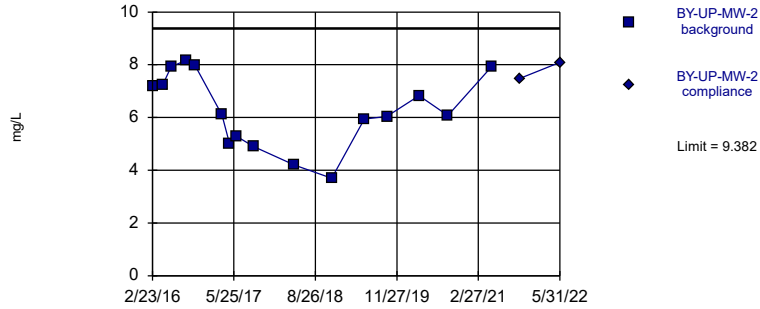


Background Data Summary: Mean=9.999, Std. Dev.=1.445, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9529, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

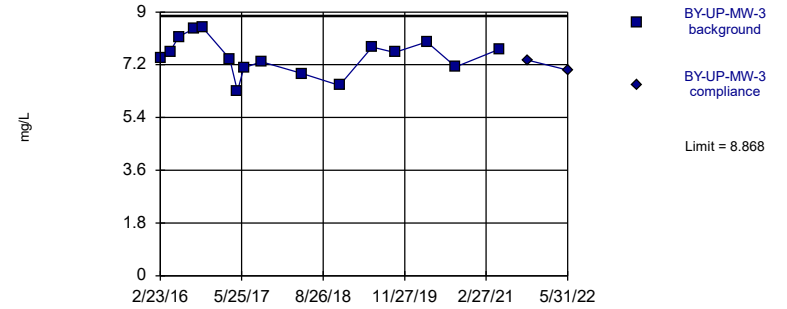


Background Data Summary: Mean=6.282, Std. Dev.=1.406, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9428, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

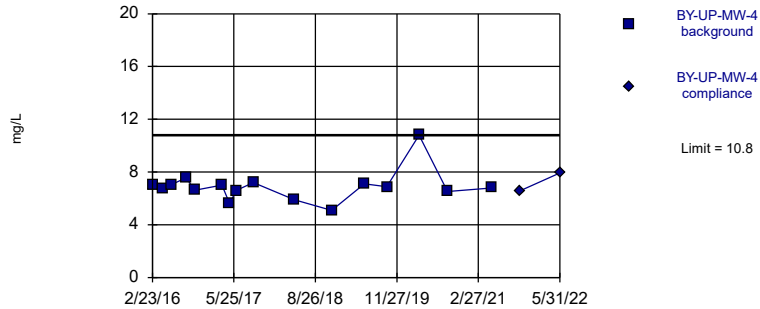


Background Data Summary: Mean=7.496, Std. Dev.=0.6224, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9756, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Non-parametric

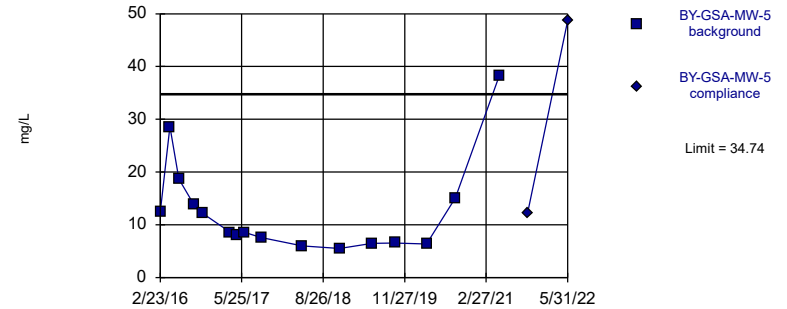


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit

Prediction Limit Intrawell Parametric

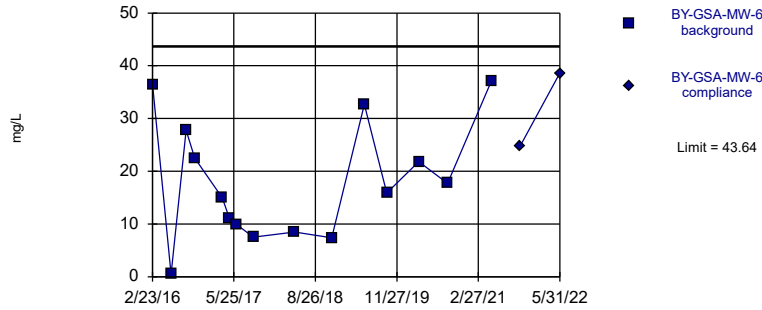


Background Data Summary (based on cube root transformation): Mean=2.238, Std. Dev.=0.4647, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8593, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

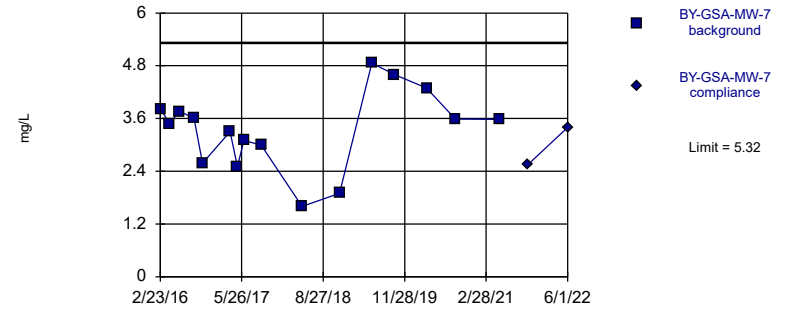


Background Data Summary: Mean=18.13, Std. Dev.=11.34, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9407, critical = 0.835. Kappa = 2.25 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

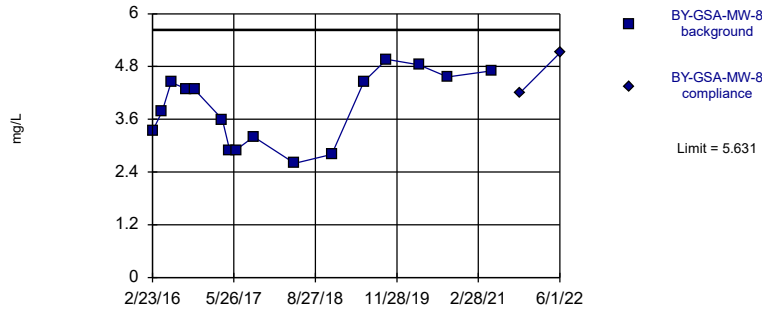


Background Data Summary: Mean=3.349, Std. Dev.=0.8938, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9701, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

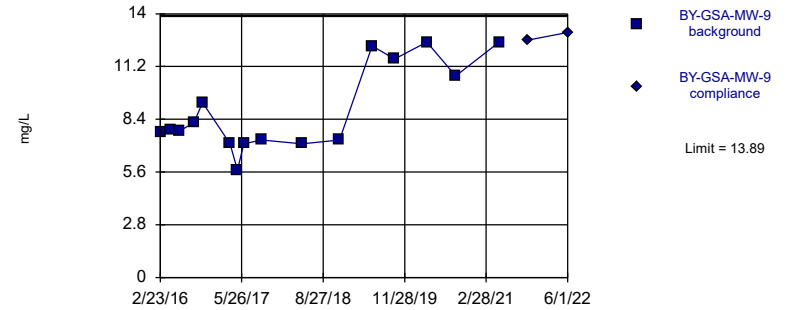


Background Data Summary: Mean=3.852, Std. Dev.=0.8066, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9127, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=8.877, Std. Dev.=2.273, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8511, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	3.59	
4/19/2016	2.89	
6/6/2016	3.12	
8/30/2016	3.91	
10/18/2016	3.9	
3/20/2017	3.5	
5/2/2017	3.5	
6/6/2017	3.1	
9/13/2017	<2 (U*)	
5/2/2018	9.9	
11/27/2018	4.7	
5/29/2019	5.48	
10/2/2019	3.65	
3/31/2020	3.17	
9/9/2020	2.92	
5/12/2021	2.18	
10/19/2021		2.37
5/31/2022		1.93

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.57	
4/19/2016	3.12	
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/21/2017	4.4	
5/2/2017	3.7	
6/7/2017	3.3	
9/13/2017	5.1	
5/1/2018	4	
11/26/2018	3.8	
5/29/2019	4.34	
10/2/2019	4.34	
3/31/2020	3.89	
9/9/2020	4.11	
5/12/2021	3.94	
10/19/2021		3.79
6/1/2022		3.35

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	3.99	
4/19/2016	4.08	
6/7/2016	4.28	
8/30/2016	4.26	
10/18/2016	4.26	
3/20/2017	4.1	
5/2/2017	5	
6/6/2017	3.9	
9/13/2017	<2 (U*)	
5/1/2018	3.7	
11/27/2018	3.2	
5/29/2019	2.93	
10/2/2019	2.75	
3/31/2020	2.72	
9/9/2020	2.32	
5/11/2021	2.16	
10/19/2021		2.08
5/31/2022		2.17

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	3.68	
4/19/2016	3.72	
6/7/2016	3.66	
8/30/2016	3.7	
10/18/2016	3.77	
3/20/2017	3.7	
5/2/2017	4.6	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/1/2018	4.1	
11/27/2018	3.5	
5/29/2019	3.58	
10/2/2019	3.64	
3/31/2020	3.47	
9/9/2020	3.47	
5/11/2021	3.42	
10/18/2021		3.45
5/31/2022		3.39

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	3.5	
4/19/2016	3.63	
6/6/2016	3.6	
8/30/2016	3.54	
10/18/2016	3.68	
3/20/2017	4.6	
5/2/2017	3.9	
6/6/2017	3.4	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.6	
5/28/2019	3.6	
10/2/2019	3.5	
3/31/2020	3.34	
9/8/2020	3.29	
5/11/2021	3.33	
10/18/2021		3.32
5/31/2022		3.31

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	3.86	
4/18/2016	4.46	
6/7/2016	3.74	
8/30/2016	3.5	
10/18/2016	3.5	
3/21/2017	2.8	
5/2/2017	3.9	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/2/2018	3.5	
11/27/2018	3.7	
5/28/2019	3.69	
10/2/2019	3.49	
3/30/2020	3.45	
9/8/2020	6.23	
5/12/2021	5.89	
10/19/2021		4.81
5/31/2022		7.83

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	6.06	
4/18/2016	6.13	
6/6/2016	5.52	
8/30/2016	5.35	
10/18/2016	4.55	
3/21/2017	3.5	
5/2/2017	4.8	
6/6/2017	3.6	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.5	
5/28/2019	6.26	
10/2/2019	4.13	
3/30/2020	4.95	
9/8/2020	5.71	
5/12/2021	7.77	
10/18/2021		10
5/31/2022		7.22

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	4.08	
4/18/2016	4.14	
6/6/2016	4.09	
8/30/2016	4.6	
10/18/2016	8.32	
3/21/2017	5.6	
5/2/2017	4.8	
6/7/2017	6.3	
9/12/2017	8.5	
5/1/2018	4	
11/27/2018	4.3	
5/28/2019	4.63	
10/2/2019	5.02	
3/30/2020	10.5	
9/8/2020	8.74	
5/12/2021	17.2	
10/18/2021		16.8
6/1/2022		14.7

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	4.47	
4/18/2016	4.74	
6/7/2016	4.52	
8/30/2016	4.71	
10/18/2016	4.73	
3/21/2017	4.9	
5/2/2017	5.7	
6/7/2017	4.1	
9/13/2017	4.9	
5/2/2018	4.1	
11/27/2018	4.9	
5/28/2019	4.43	
10/2/2019	4.32	
3/30/2020	4.38	
9/8/2020	4.61	
5/12/2021	5.25	
10/19/2021		5.34
6/1/2022		5.38

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	
9/9/2020	7.94	
5/12/2021	8.77	
10/19/2021		6.33
6/1/2022		4.29

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021		15.5
5/31/2022		12.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	9.29	
4/19/2016	9.92	
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/21/2017	9	
5/2/2017	7.9	
6/7/2017	8.4	
9/13/2017	8.7	
5/1/2018	10	
11/26/2018	8.3	
5/29/2019	11.1	
10/2/2019	13.2	
3/31/2020	11.1	
9/9/2020	9.28	
5/12/2021	11	
10/19/2021		10.1
6/1/2022		11.4

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021		7.48
5/31/2022		8.09

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021		7.36
5/31/2022		7.02

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021		6.58
5/31/2022		7.94

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	12.5	
4/18/2016	28.6	
6/7/2016	18.7	
8/30/2016	13.8	
10/18/2016	12.2	
3/21/2017	8.6	
5/2/2017	8	
6/6/2017	8.6	
9/13/2017	7.6	
5/2/2018	6	
11/27/2018	5.5	
5/28/2019	6.5	
10/2/2019	6.55	
3/30/2020	6.34	
9/8/2020	15.1	
5/12/2021	38.2	
10/19/2021		12.3
5/31/2022		48.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	36.5	
4/18/2016	80.2 (O)	
6/6/2016	0.498 (J)	
8/30/2016	27.8	
10/18/2016	22.5	
3/21/2017	15	
5/2/2017	11	
6/6/2017	10	
9/12/2017	7.5	
5/1/2018	8.5	
11/26/2018	7.4	
5/28/2019	32.7	
10/2/2019	15.9	
3/30/2020	21.8	
9/8/2020	17.7	
5/12/2021	37.1	
10/18/2021		24.7
5/31/2022		38.6

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	3.82	
4/18/2016	3.48	
6/6/2016	3.76	
8/30/2016	3.62	
10/18/2016	2.58	
3/21/2017	3.3 (J)	
5/2/2017	2.5 (J)	
6/7/2017	3.1 (J)	
9/12/2017	3 (J)	
5/1/2018	1.6 (J)	
11/27/2018	1.9 (J)	
5/28/2019	4.86	
10/2/2019	4.6	
3/30/2020	4.29	
9/8/2020	3.59	
5/12/2021	3.58	
10/18/2021		2.54
6/1/2022		3.4

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.33	
4/18/2016	3.78	
6/7/2016	4.44	
8/30/2016	4.29	
10/18/2016	4.27	
3/21/2017	3.6 (J)	
5/2/2017	2.9 (J)	
6/7/2017	2.9 (J)	
9/13/2017	3.2 (J)	
5/2/2018	2.6 (J)	
11/27/2018	2.8 (J)	
5/28/2019	4.46	
10/2/2019	4.96	
3/30/2020	4.84	
9/8/2020	4.56	
5/12/2021	4.7	
10/19/2021		4.2
6/1/2022		5.11

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	
9/9/2020	10.7	
5/12/2021	12.5	
10/19/2021		12.6
6/1/2022		13

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	5/31/2022	0.939	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	5/31/2022	0.685	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.067	n/a	5/31/2022	8.52	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.067	n/a	5/31/2022	9.98	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	5/31/2022	104	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	5/31/2022	85.3	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2

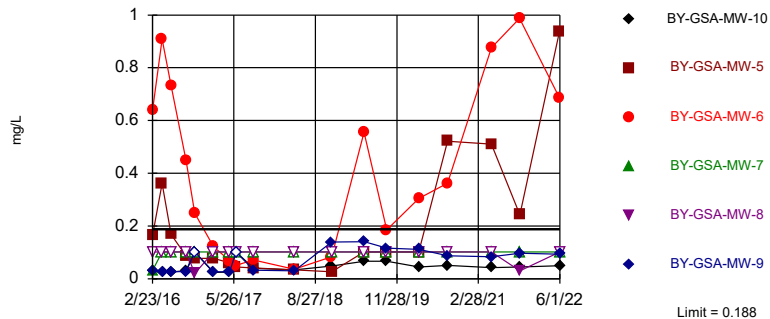
Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	6/1/2022	0.0493J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	5/31/2022	0.939	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	5/31/2022	0.685	Yes	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	6/1/2022	0.0933J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.067	n/a	6/1/2022	1.04	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.067	n/a	5/31/2022	8.52	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.067	n/a	5/31/2022	9.98	Yes	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-7	2.067	n/a	6/1/2022	1.27	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.067	n/a	6/1/2022	0.94	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.067	n/a	6/1/2022	1.55	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	5/31/2022	4.61	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	5/31/2022	4.98	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	6/1/2022	4.03	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	6/1/2022	4.49	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	6/1/2022	40.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	5/31/2022	104	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	5/31/2022	85.3	Yes	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	6/1/2022	41.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	6/1/2022	30.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	6/1/2022	39.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Non-parametric

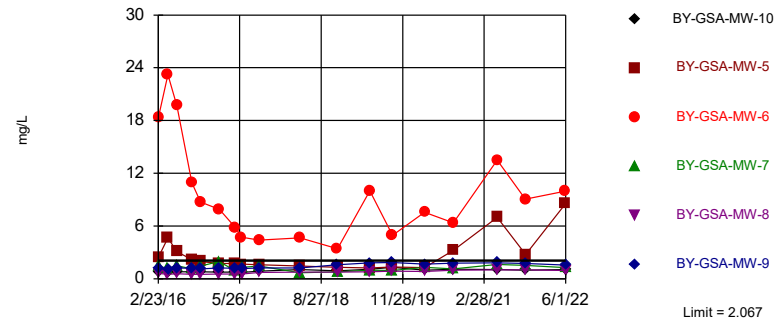


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 79.17% NDs. Annual per-constituent alpha = 0.004426. Individual comparison alpha = 0.0003696 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Parametric

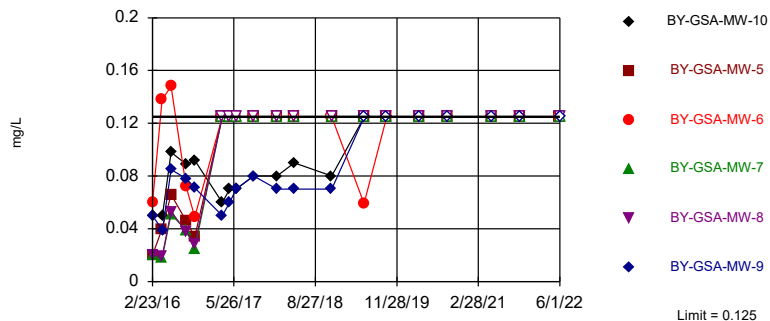


Background Data Summary: Mean=1.501, Std. Dev.=0.3034, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9742, critical = 0.954. Kappa = 1.866 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium, total Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Interwell Non-parametric

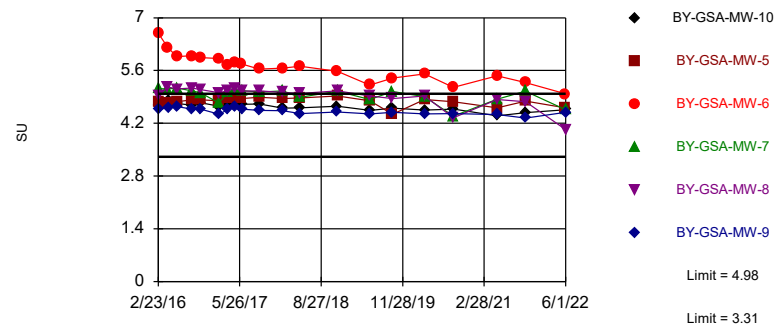


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 76 background values. 61.84% NDs. Annual per-constituent alpha = 0.004003. Individual comparison alpha = 0.0003342 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limits

Prediction Limit
Interwell Non-parametric

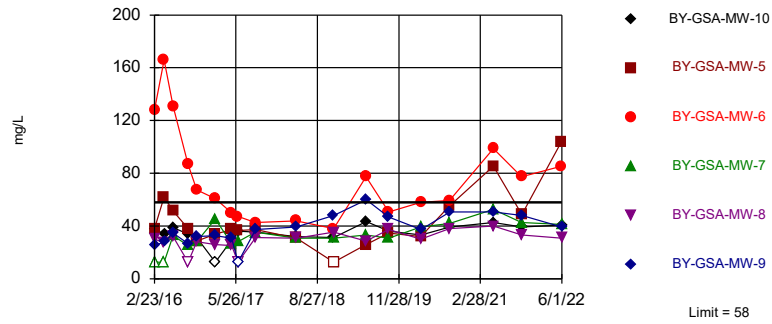


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 80 background values. Annual per-constituent alpha = 0.00716. Individual comparison alpha = 0.0005976 (1 of 2). Comparing 6 points to limit.

Constituent: pH, Field Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. 9.722% NDs. Annual per-constituent alpha = 0.004426. Individual comparison alpha = 0.0003696 (1 of 2). Comparing 6 points to limit.

Constituent: TDS Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)	BY-GSA-MW-6
2/23/2016	0.0294 (J)	0.0297 (J)	0.0314 (J)	0.0212 (J)	0.0252 (J)	<0.1015	0.163	0.0257 (J)	0.638
4/18/2016			<0.1015				0.361		0.908
4/19/2016	0.0257 (J)	0.0269 (J)		<0.1015	<0.1015	<0.1015		<0.1015	
6/6/2016			<0.1015	<0.1015				<0.1015	0.733
6/7/2016	0.0257 (J)	0.0271 (J)			0.0202 (J)	<0.1015	0.169		
8/30/2016	0.0317 (J)	0.0272 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.0858 (J)	<0.1015	0.448
10/18/2016	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015	0.0778 (J)	0.022 (J)	0.249
1/30/2017	0.0243 (J)	0.0269 (J)	<0.1015						
1/31/2017				<0.1015	<0.1015	<0.1015	0.077 (J)	<0.1015	0.121
5/2/2017	0.0259 (J)	0.027 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.0602 (J)	<0.1015	0.0695 (J)
6/6/2017				<0.1015	<0.1015	<0.1015	0.0442 (J)	<0.1015	0.0509 (J)
6/7/2017	<0.1015	<0.1015	<0.1015						
9/12/2017			<0.1015					<0.1015	0.0709 (J)
9/13/2017	0.0394 (J)	0.032 (J)		<0.1015	<0.1015	<0.1015	0.0411 (J)		
5/1/2018	0.0338 (J)	0.0302 (J)	<0.1015		<0.1015	<0.1015		<0.1015	0.0365 (J)
5/2/2018				0.0362 (J)			0.0334 (J)		
11/26/2018	0.0484 (J)	0.139						<0.1015	0.0836 (J)
11/27/2018			<0.1015	0.11	0.0207 (J)	<0.1015	0.0265 (J)		
5/28/2019			<0.1015				<0.1015	<0.1015	0.556
5/29/2019	0.0669 (J)	0.141		0.188	<0.1015	<0.1015			
10/2/2019	0.0671 (J)	0.116	<0.1015	0.097 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.186
3/30/2020			<0.1015				<0.1015		0.304
3/31/2020	0.0442 (J)	0.112		0.157	<0.1015	<0.1015		<0.1015	
9/8/2020			<0.1015				0.521	<0.1015	0.362
9/9/2020	0.0509 (J)	0.0873 (J)		0.0999 (J)	<0.1015	<0.1015			
5/11/2021					<0.1015	<0.1015		<0.1015	
5/12/2021	0.0423 (J)	0.0834 (J)	<0.1015	0.0841 (J)			0.511		0.876
10/18/2021			<0.1015			<0.1015		<0.1015	0.987
10/19/2021	0.0444 (J)	0.0966 (J)		0.0708 (J)	<0.1015		0.243		
5/31/2022				0.0567 (J)	<0.1015	<0.1015	0.939	<0.1015	0.685
6/1/2022	0.0493 (J)	0.0933 (J)	<0.1015						

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8
2/23/2016	<0.1015
4/18/2016	<0.1015
4/19/2016	
6/6/2016	
6/7/2016	<0.1015
8/30/2016	<0.1015
10/18/2016	0.0207 (J)
1/30/2017	
1/31/2017	<0.1015
5/2/2017	<0.1015
6/6/2017	
6/7/2017	<0.1015
9/12/2017	
9/13/2017	<0.1015
5/1/2018	
5/2/2018	<0.1015
11/26/2018	
11/27/2018	<0.1015
5/28/2019	<0.1015
5/29/2019	
10/2/2019	<0.1015
3/30/2020	<0.1015
3/31/2020	
9/8/2020	<0.1015
9/9/2020	
5/11/2021	
5/12/2021	<0.1015
10/18/2021	
10/19/2021	0.0303 (J)
5/31/2022	
6/1/2022	<0.1015

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)	BY-GSA-MW-6
2/23/2016	0.795	1.15	1.4	1.28	1.11	1.77	2.42	1.42	18.3
4/18/2016			1.2				4.65		23.2
4/19/2016	0.761	1.04		1.19	1.09	1.68		1.31	
6/6/2016			1.48	1.19				1.35	19.7
6/7/2016	0.799	1.22			1.16	1.68	3.1		
8/30/2016	0.788	1.18	1.13	1.11	1.08	1.62	2.19	1.31	10.9
10/18/2016	0.788	1.12	1.45	1.04	1.03	1.53	1.97	1.22	8.74
1/30/2017	0.755	1.23	1.95						
1/31/2017				1.19	1.23	1.65	1.73	1.36	7.89
5/2/2017	0.763	1.2	0.908	1.05	1.28	1.58	1.74	1.24	5.81
6/6/2017				0.978	1.25	1.55	1.66	1.28	4.72
6/7/2017	0.706	1.17	1.29						
9/12/2017			1.44					1.47	4.39
9/13/2017	0.873	1.25		1.14	1.6	1.71	1.61		
5/1/2018	1.05	1.25	0.695		1.58	1.76		1.47	4.66
5/2/2018				1.64			1.44		
11/26/2018	0.922	1.61						1.52	3.41
11/27/2018			0.798	2.01	1.49	1.69	1.3		
5/28/2019			0.973				1.25	1.6	10
5/29/2019	1.07	1.8		1.85	1.59	1.74			
10/2/2019	1.32	1.85	0.929	1.55	1.7	1.86	1.33	1.7	4.94
3/30/2020			1.32				1.26		7.56
3/31/2020	0.98	1.67		1.96	1.43	1.92		1.78	
9/8/2020			1.12				3.24	1.94	6.38
9/9/2020	1.1	1.79		1.43	1.5	1.97			
5/11/2021					1.39	2.06		1.93	
5/12/2021	1.06	1.82	1.63	1.34			7		13.5
10/18/2021			1.53			2.1		2.01	9.06
10/19/2021	0.977	1.75		1.17	1.32		2.75		
5/31/2022				1.14	1.24	1.95	8.52	2.02	9.98
6/1/2022	1.04	1.55	1.27						

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8
2/23/2016	0.618
4/18/2016	0.505
4/19/2016	
6/6/2016	
6/7/2016	0.587
8/30/2016	0.495 (J)
10/18/2016	0.503
1/30/2017	
1/31/2017	0.554
5/2/2017	0.548
6/6/2017	
6/7/2017	0.545
9/12/2017	
9/13/2017	0.723
5/1/2018	
5/2/2018	0.751
11/26/2018	
11/27/2018	0.743
5/28/2019	0.789
5/29/2019	
10/2/2019	0.882
3/30/2020	0.841
3/31/2020	
9/8/2020	0.981
9/9/2020	
5/11/2021	
5/12/2021	1.02
10/18/2021	
10/19/2021	1.01
5/31/2022	
6/1/2022	0.94

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5
2/23/2016	0.05 (J)	0.02 (J)	0.05 (J)	0.02 (J)	0.03 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)
4/18/2016		0.019 (J)		0.018 (J)			0.138 (J)		0.04 (J)
4/19/2016	0.05 (J)		0.039 (J)		0.023 (J)	0.021 (J)		0.016 (J)	
6/6/2016				0.051 (J)	0.062 (J)		0.148 (J)		
6/7/2016	0.098 (J)	0.053 (J)	0.085 (J)			0.06 (J)		0.052 (J)	0.066 (J)
8/30/2016	0.089 (J)	0.038 (J)	0.078 (J)	0.039 (J)	0.053 (J)	0.05 (J)	0.072 (J)	0.038 (J)	0.046 (J)
10/18/2016	0.092 (J)	0.028 (J)	0.071 (J)	0.025 (J)	0.042 (J)	0.04 (J)	0.049 (J)	0.03 (J)	0.034 (J)
3/20/2017					<0.125	<0.125		<0.125	
3/21/2017	0.06 (J)	<0.125	0.05 (J)	<0.125			<0.125		<0.125
5/2/2017	0.07 (J)	<0.125	0.06 (J)	<0.125	0.04 (J)	0.04 (J)	<0.125	<0.125	<0.125
6/6/2017					<0.125	0.04 (J)	<0.125	<0.125	<0.125
6/7/2017	0.07 (J)	<0.125	0.07 (J)	<0.125					
9/12/2017				<0.125			<0.125		
9/13/2017	0.08 (J)	<0.125	0.08 (J)		0.04 (J)	0.043 (J)		<0.125	<0.125
1/22/2018				<0.125			<0.125		
1/23/2018	0.08 (J)		0.07 (J)		<0.125	0.04 (J)		<0.125	
1/24/2018		<0.125							<0.125
5/1/2018	0.09 (J)		0.07 (J)	<0.125		0.04 (J)	<0.125	<0.125	
5/2/2018		<0.125			0.04 (J)				<0.125
11/26/2018	0.08 (J)		0.07 (J)				<0.125		
11/27/2018		<0.125		<0.125	<0.125	<0.125		<0.125	<0.125
5/28/2019		<0.125		<0.125			0.0591 (J)		<0.125
5/29/2019	<0.125		<0.125		0.0502 (J)	<0.125		<0.125	
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125		<0.125			<0.125		<0.125
3/31/2020	<0.125		<0.125		<0.125	<0.125		<0.125	
9/8/2020		<0.125		<0.125			<0.125		<0.125
9/9/2020	<0.125		<0.125		<0.125	<0.125		<0.125	
5/11/2021						<0.125		<0.125	
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125		<0.125		<0.125
10/18/2021				<0.125			<0.125	<0.125	
10/19/2021	<0.125	<0.125	<0.125		<0.125	<0.125			<0.125
5/31/2022					<0.125	<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125	<0.125	<0.125	<0.125					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	0.02 (J)
4/18/2016	
4/19/2016	0.015 (J)
6/6/2016	0.05 (J)
6/7/2016	
8/30/2016	0.036 (J)
10/18/2016	0.025 (J)
3/20/2017	<0.125
3/21/2017	
5/2/2017	<0.125
6/6/2017	<0.125
6/7/2017	
9/12/2017	<0.125
9/13/2017	
1/22/2018	
1/23/2018	<0.125
1/24/2018	
5/1/2018	<0.125
5/2/2018	
11/26/2018	<0.125
11/27/2018	
5/28/2019	<0.125
5/29/2019	
10/2/2019	<0.125
3/30/2020	
3/31/2020	<0.125
9/8/2020	<0.125
9/9/2020	
5/11/2021	<0.125
5/12/2021	
10/18/2021	<0.125
10/19/2021	
5/31/2022	<0.125
6/1/2022	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-6	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-8	BY-GSA-MW-9	BY-UP-MW-1 (bg)
2/23/2016	4.67	6.59	4.79	4.96	5.12	4.76	4.92	4.56	4.62
4/18/2016		6.21			5.11	4.75	5.16		
4/19/2016	4.79		4.84	4.94				4.62	4.74
6/6/2016		5.97			5.14				4.65
6/7/2016	4.73		4.81	4.96		4.77	5.11	4.64	
8/30/2016	4.68	5.99	4.76	4.92	5.06	4.82	5.14	4.58	4.64
10/18/2016	4.75	5.94	4.84	4.98	5.01	4.82	5.09	4.58	4.74
1/30/2017	4.65				4.74			4.44	
1/31/2017		5.92	4.6	4.74		4.8	5.01		4.54
3/20/2017			4.71	4.9					4.67
3/21/2017	4.68	5.74			5.04	4.86	5.07	4.57	
5/2/2017	4.75	5.82	4.8	4.98	5.08	4.89	5.13	4.64	4.79
6/6/2017		5.77	4.72	4.94		4.86			4.76
6/7/2017	4.7				5.07		5.05	4.58	
9/12/2017		5.64			5.03				
9/13/2017	4.71		4.71	4.93		4.89	5.06	4.54	4.81
1/22/2018		5.66			5.06				
1/23/2018	4.6		4.67	4.91				4.53	4.79
1/24/2018						4.86	5.02		
5/1/2018	4.61	5.71	4.61	4.87	4.89			4.46	
5/2/2018						4.87	4.99		4.62
11/26/2018	4.65	5.58						4.5	
11/27/2018			4.72	4.94	5.05	4.92	5.06		4.73
5/28/2019		5.21			4.83	4.8	4.92		
5/29/2019	4.54		4.58	4.8				4.45	4.65
10/2/2019	4.6	5.4	4.43	4.52	5.04	4.44	4.86	4.49	4.57
3/30/2020		5.51			4.91	4.83	4.92		
3/31/2020	4.55		4.6	4.4				4.45	4.64
9/8/2020		5.15			4.39	4.77	4.35		
9/9/2020	4.58		4.67	4.76				4.46	4.65
5/11/2021			4.29	4.53					
5/12/2021	4.4	5.46			4.84	4.61	4.83	4.43	4.74
10/18/2021		5.28		4.55	5.05				
10/19/2021	4.48		4.6			4.79	4.77	4.34	4.67
5/31/2022		4.98	3.31	3.54		4.61			3.89
6/1/2022	4.56				4.56		4.03	4.49	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 7/27/2022 11:21 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	4.74
4/18/2016	
4/19/2016	4.86
6/6/2016	4.88
6/7/2016	
8/30/2016	4.91
10/18/2016	4.95
1/30/2017	
1/31/2017	4.71
3/20/2017	4.83
3/21/2017	
5/2/2017	4.93
6/6/2017	4.9
6/7/2017	
9/12/2017	4.82
9/13/2017	
1/22/2018	
1/23/2018	4.85
1/24/2018	
5/1/2018	4.8
5/2/2018	
11/26/2018	4.88
11/27/2018	
5/28/2019	4.73
5/29/2019	
10/2/2019	4.67
3/30/2020	
3/31/2020	4.51
9/8/2020	4.75
9/9/2020	
5/11/2021	4.67
5/12/2021	
10/18/2021	4.38
10/19/2021	
5/31/2022	3.97
6/1/2022	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)	BY-GSA-MW-6
2/23/2016	37.3	25.3	<25	26.7	30.7	40	38	<25	128
4/18/2016			<25				62		166
4/19/2016	34	28		<25	<25	32		<25	
6/6/2016			32.7	32.7				28.7	131
6/7/2016	38.7	34.7			35.3	38.7	51.3		
8/30/2016	34	26.7	25.3	33.3	27.3	31.3	38	25.3	86.7
10/18/2016	31.3	32	28	27.3	<25	26.7	28.7	<25	67.3
1/30/2017	<25	32.7	45.3						
1/31/2017				32	32.7	30	34	26	60.7
5/2/2017	29.3	30.7	26.7	31.3	30.7	30.7	37.3	<25	50
6/6/2017				35.3	34.7	32.7	36.7	42.7	47.3
6/7/2017	36	<25	28						
9/12/2017			35.3					26.7	42.7
9/13/2017	35.3	37.3		36.7	39.3	38	37.3		
5/1/2018	32	39.3	30.7		42	35.3		34.7	44
5/2/2018				34			30.7		
11/26/2018	31.3	48						32.7	38
11/27/2018			30.7	50.7	31.3	36	<25		
5/28/2019			33.3				26	31.3	77.3
5/29/2019	43.3	60		58	40	37.3			
10/2/2019	36	46.7	30.7	46	41.3	36.7	34.7	36	50.7
3/30/2020			39.3				32		58
3/31/2020	33.3	37.3		53.3	40	39.3		36.7	
9/8/2020			42				55.3	39.3	59.3
9/9/2020	39.3	50.7		42	40.7	42.7			
5/11/2021					35.3	44		46.7	
5/12/2021	42.7	50.7	52.7	40.7			85.3		98.7
10/18/2021			42.7			36		36	77.3
10/19/2021	39.3	48		40	36		48.7		
5/31/2022				32	30.7	35.3	104	36.7	85.3
6/1/2022	40.7	39.3	41.3						

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8
2/23/2016	30
4/18/2016	27.3
4/19/2016	
6/6/2016	
6/7/2016	32
8/30/2016	<25
10/18/2016	28
1/30/2017	
1/31/2017	26
5/2/2017	25.3
6/6/2017	
6/7/2017	<25
9/12/2017	
9/13/2017	31.3
5/1/2018	
5/2/2018	30.7
11/26/2018	
11/27/2018	35.3
5/28/2019	28.7
5/29/2019	
10/2/2019	37.3
3/30/2020	30
3/31/2020	
9/8/2020	38
9/9/2020	
5/11/2021	
5/12/2021	40
10/18/2021	
10/19/2021	33.3
5/31/2022	
6/1/2022	30.7

FIGURE F.

Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

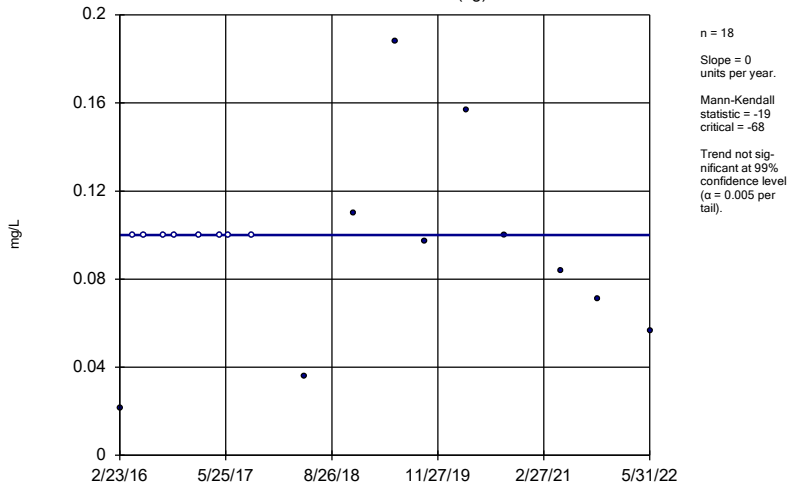
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.07505	86	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1262	111	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.385	-100	-68	Yes	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05925	-69	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	3.147	72	68	Yes	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	3.695	95	68	Yes	18	22.22	n/a	n/a	0.01	NP

Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

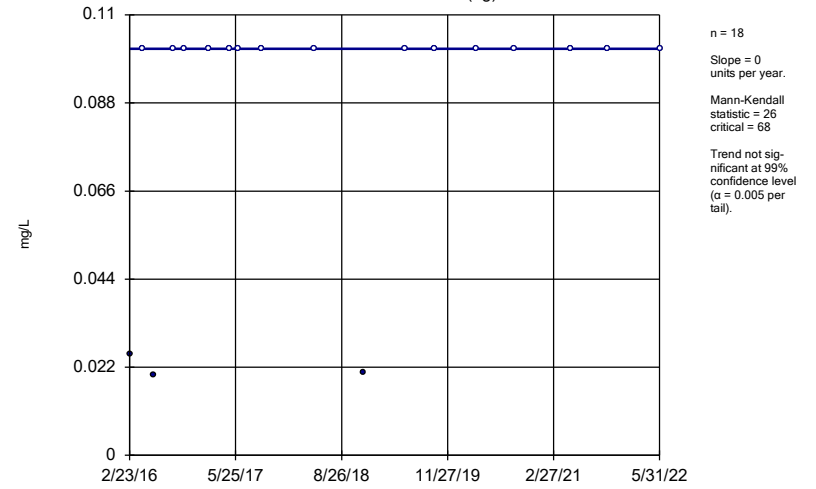
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-UP-MW-1 (bg)	0	-19	-68	No	18	44.44	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	26	68	No	18	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	25	68	No	18	88.89	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-5	0.008619	18	68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.01595	11	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	0.02597	19	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.06598	57	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.07505	86	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1262	111	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	-0.1695	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-1.153	-35	-68	No	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1727	-38	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.385	-100	-68	Yes	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.04978	-67	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05925	-69	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-5	0.1679	24	68	No	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	1.548	45	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0	0	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.07308	-27	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.02454	-6	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	-0.7242	-22	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	3.147	72	68	Yes	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	1.703	57	68	No	18	11.11	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	1.36	45	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	3.695	95	68	Yes	18	22.22	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-5	0.6798	5	68	No	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-6.309	-28	-68	No	18	0	n/a	n/a	0.01	NP

Sen's Slope Estimator
BY-UP-MW-1 (bg)



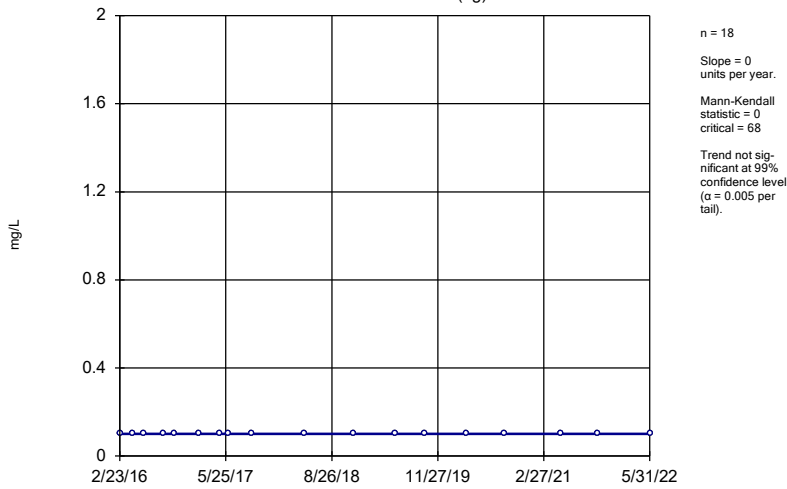
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator
BY-UP-MW-2 (bg)



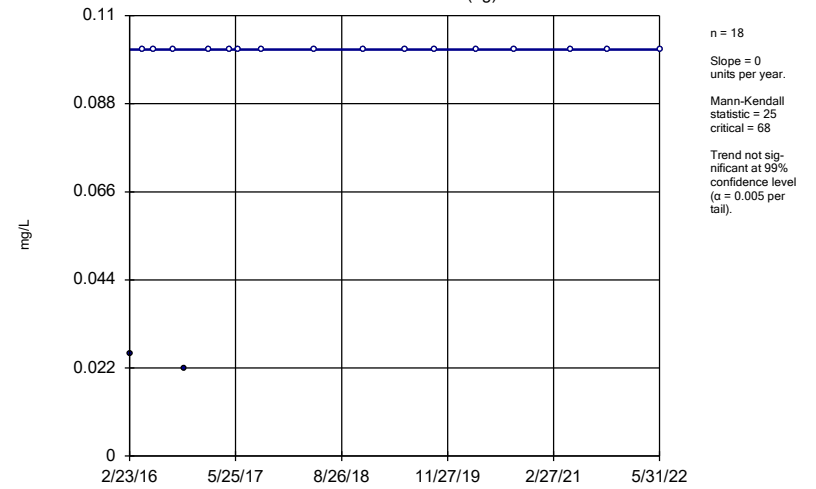
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator
BY-UP-MW-3 (bg)



Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

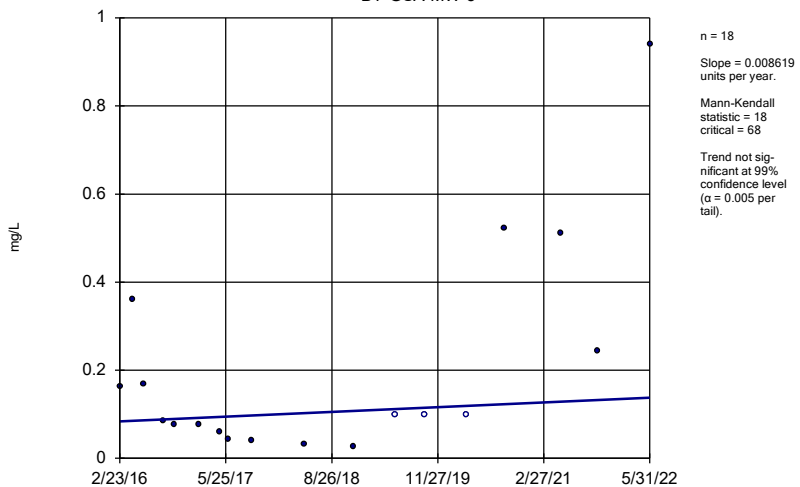
Sen's Slope Estimator
BY-UP-MW-4 (bg)



Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

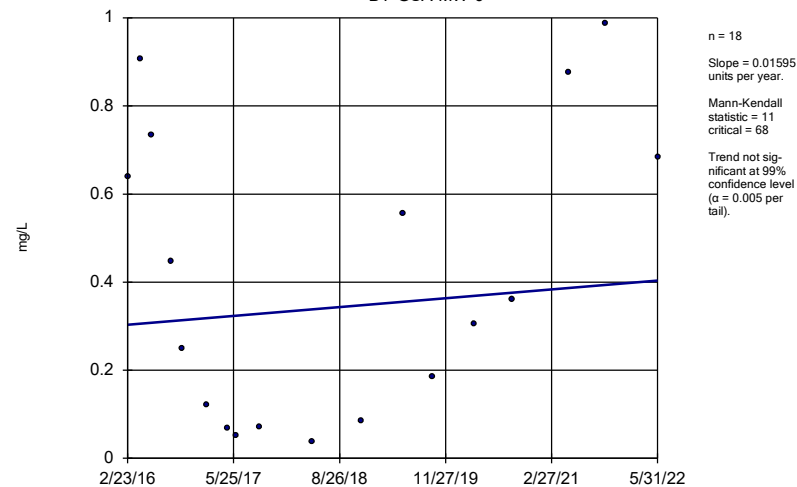
BY-GSA-MW-5



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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

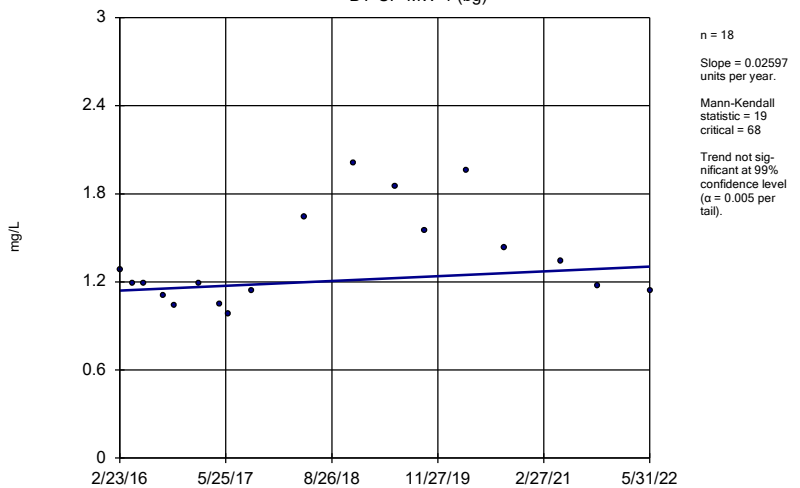
BY-GSA-MW-6



Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

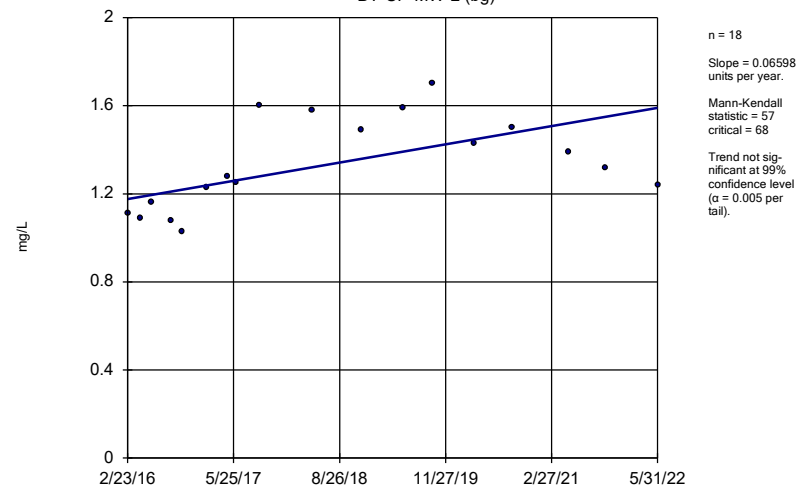
BY-UP-MW-1 (bg)



Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

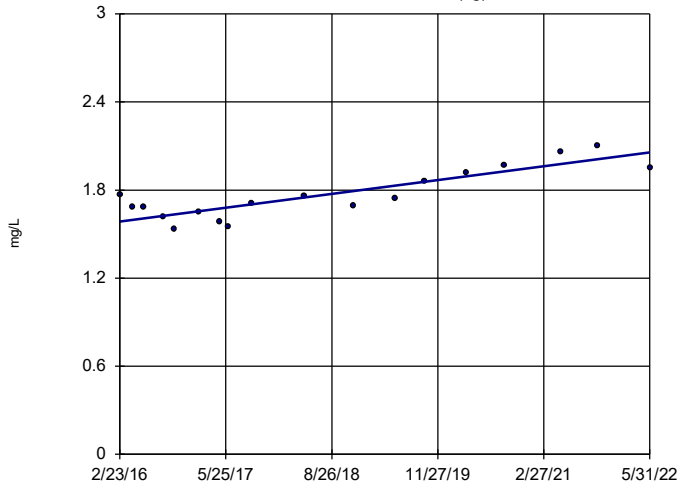
BY-UP-MW-2 (bg)



Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

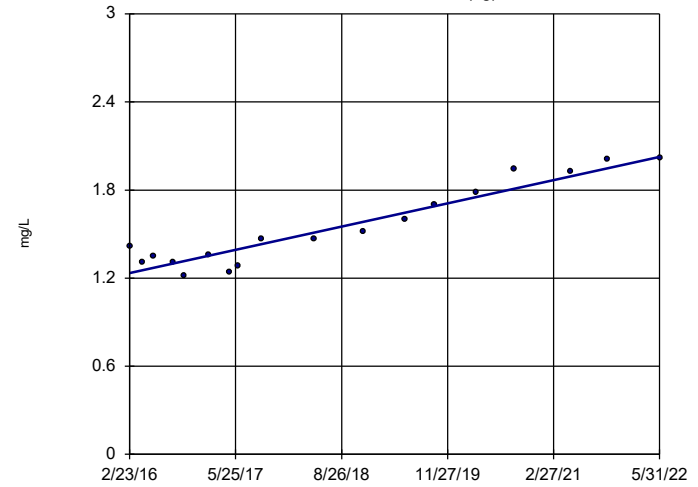
BY-UP-MW-3 (bg)



Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

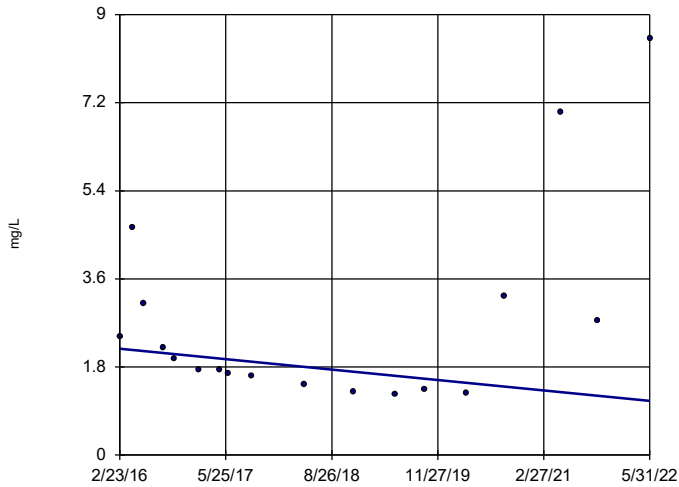
BY-UP-MW-4 (bg)



Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

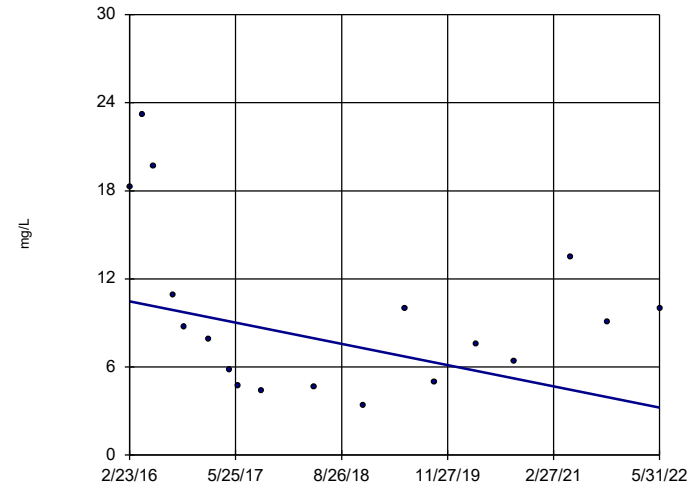
BY-GSA-MW-5



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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

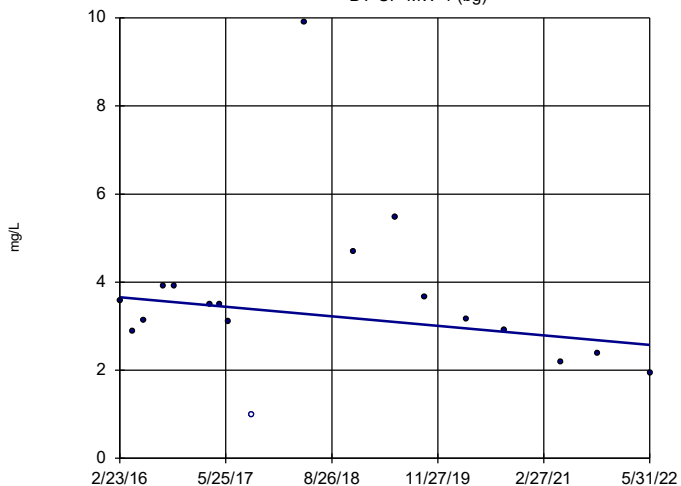
BY-GSA-MW-6



Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

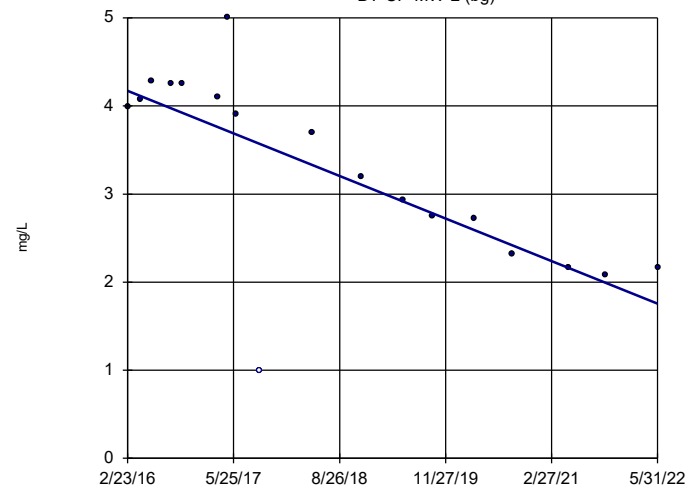


n = 18
Slope = -0.1727
units per year.
Mann-Kendall
statistic = -38
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

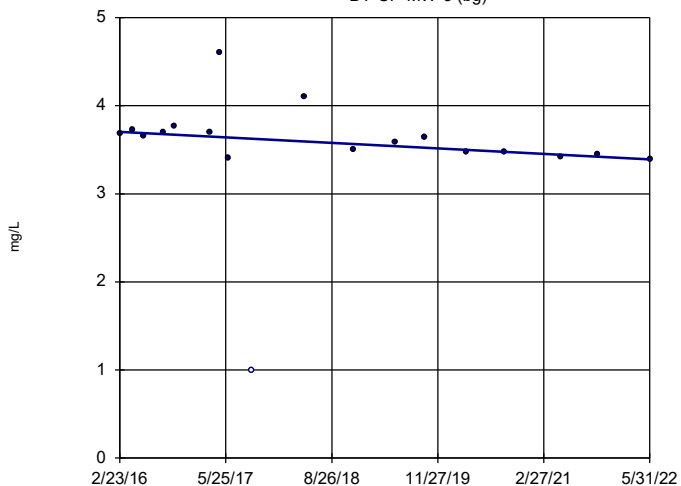


n = 18
Slope = -0.385
units per year.
Mann-Kendall
statistic = -100
critical = -68
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

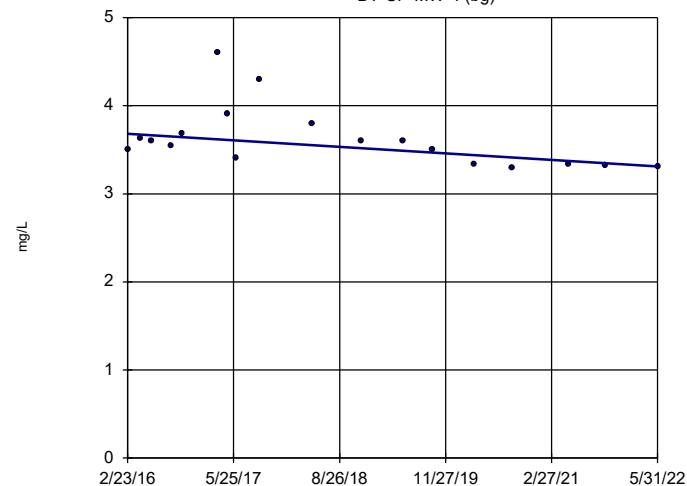


n = 18
Slope = -0.04978
units per year.
Mann-Kendall
statistic = -67
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

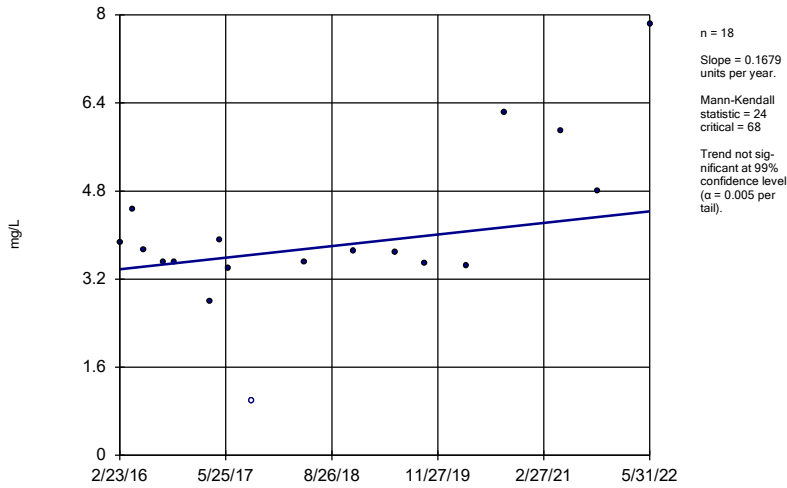
BY-UP-MW-4 (bg)



n = 18
Slope = -0.05925
units per year.
Mann-Kendall
statistic = -69
critical = -68
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

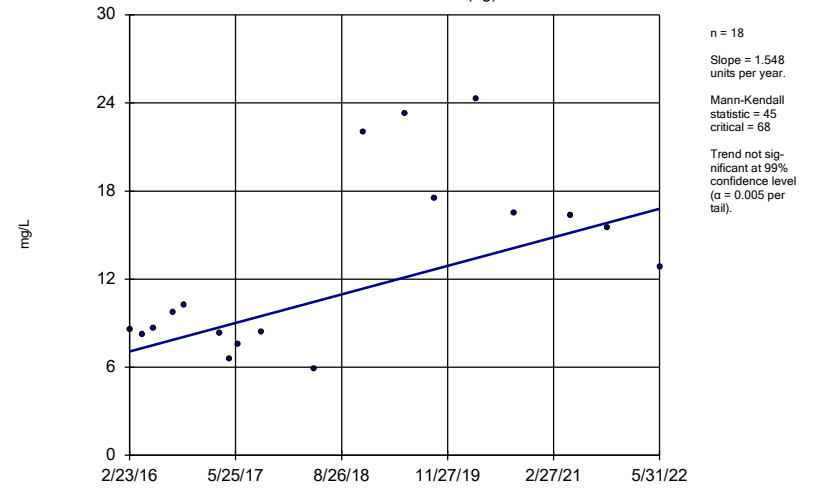
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator BY-GSA-MW-5



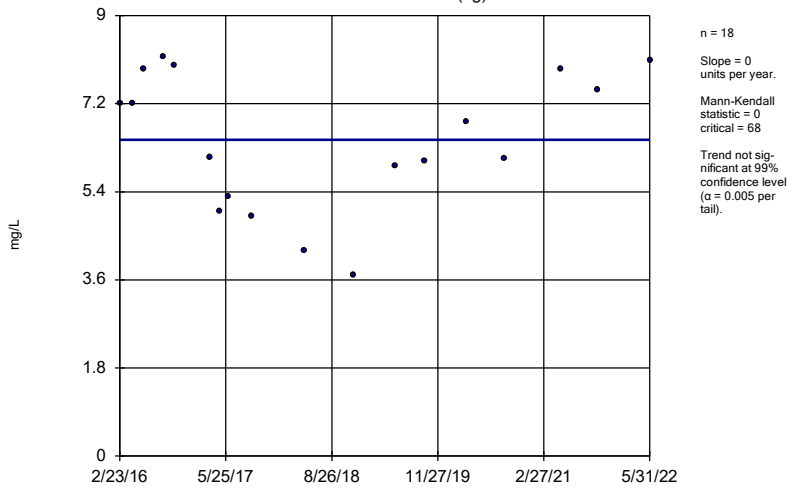
Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator BY-UP-MW-1 (bg)



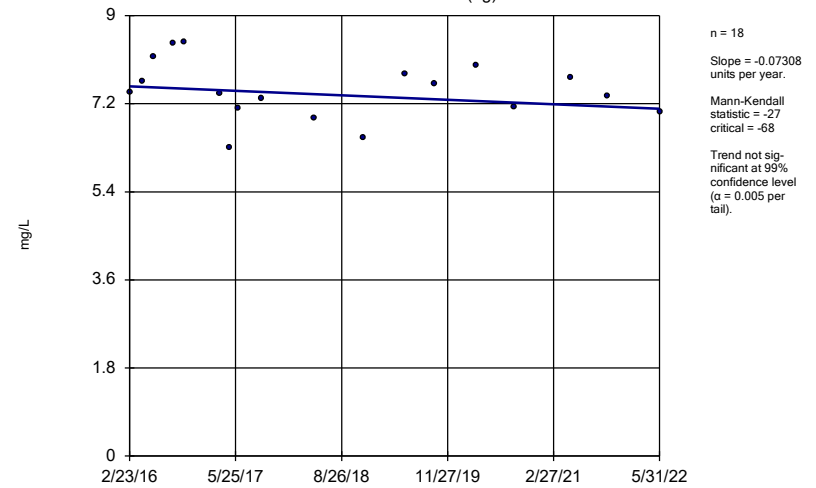
Constituent: Sulfate Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator BY-UP-MW-2 (bg)



Constituent: Sulfate Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

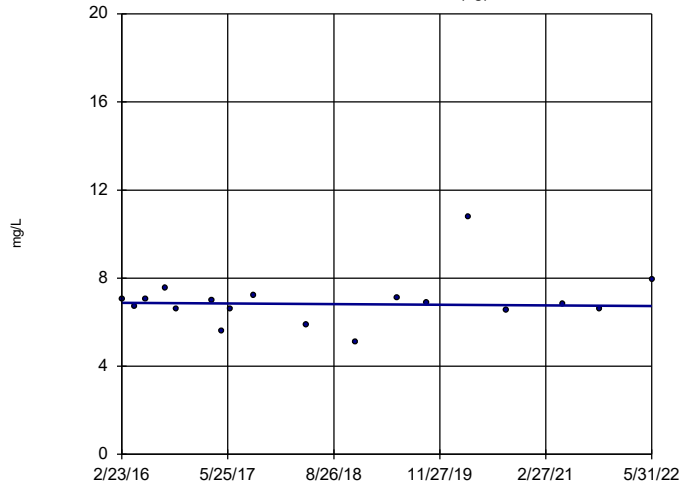
Sen's Slope Estimator BY-UP-MW-3 (bg)



Constituent: Sulfate Analysis Run 7/26/2022 10:37 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

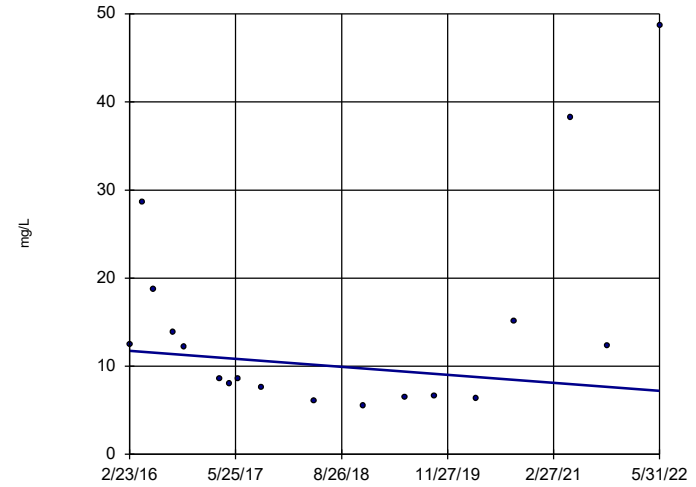


n = 18
 Slope = -0.02454
 units per year.
 Mann-Kendall
 statistic = -6
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 7/26/2022 10:37 PM View: Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-GSA-MW-5

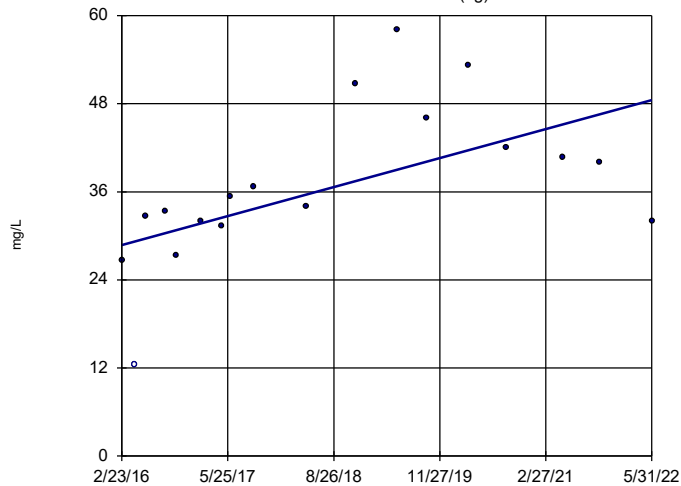


n = 18
 Slope = -0.7242
 units per year.
 Mann-Kendall
 statistic = -22
 critical = -68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 7/26/2022 10:37 PM View: Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

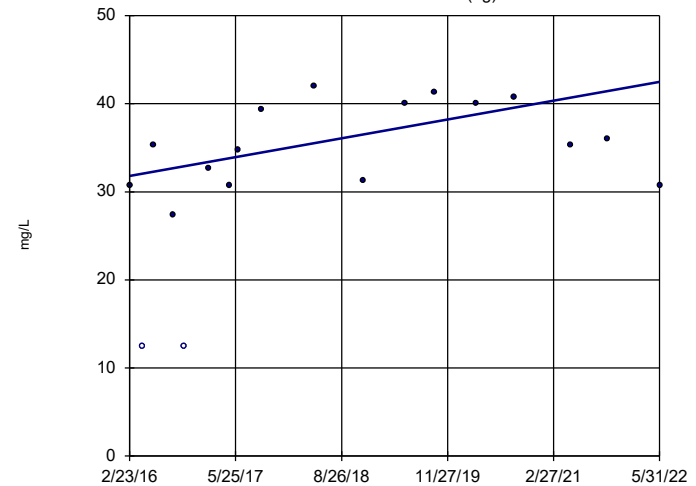


n = 18
 Slope = 3.147
 units per year.
 Mann-Kendall
 statistic = 72
 critical = 68
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

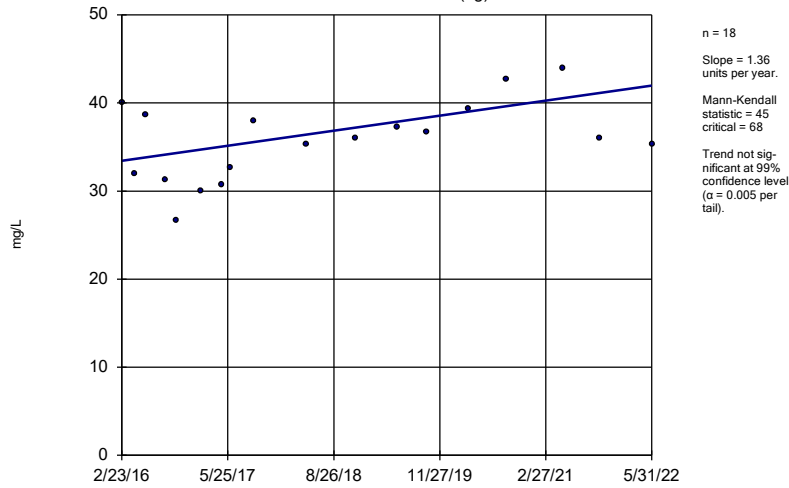


n = 18
 Slope = 1.703
 units per year.
 Mann-Kendall
 statistic = 57
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

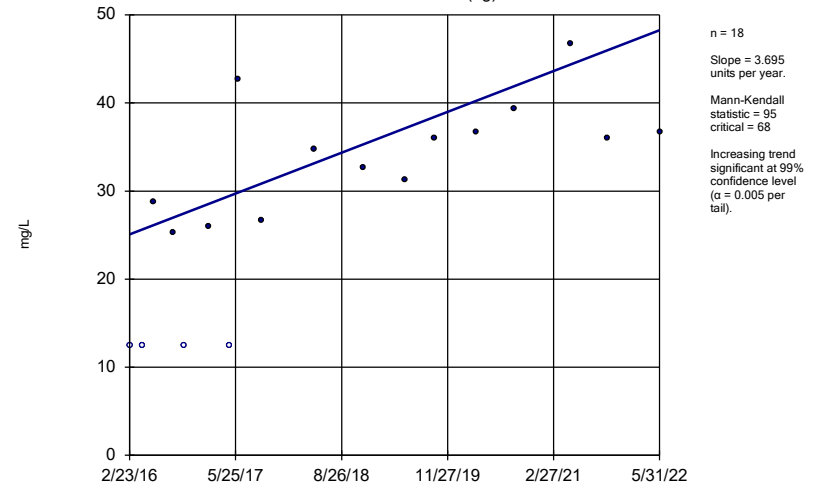


Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-4 (bg)

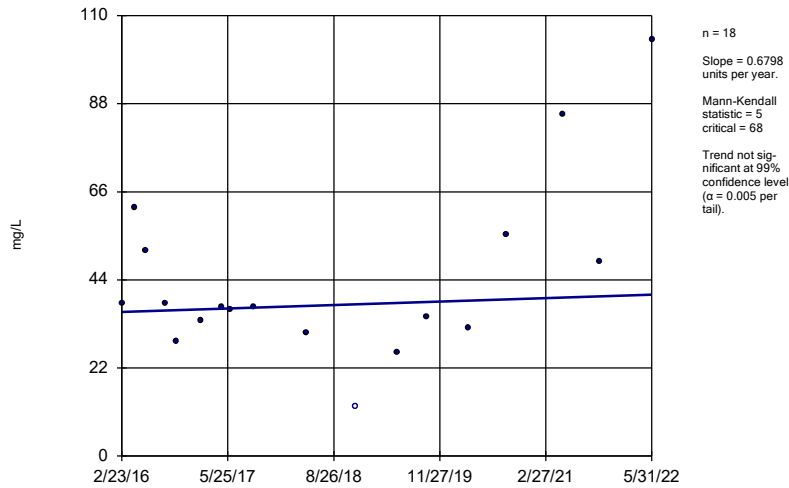


Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

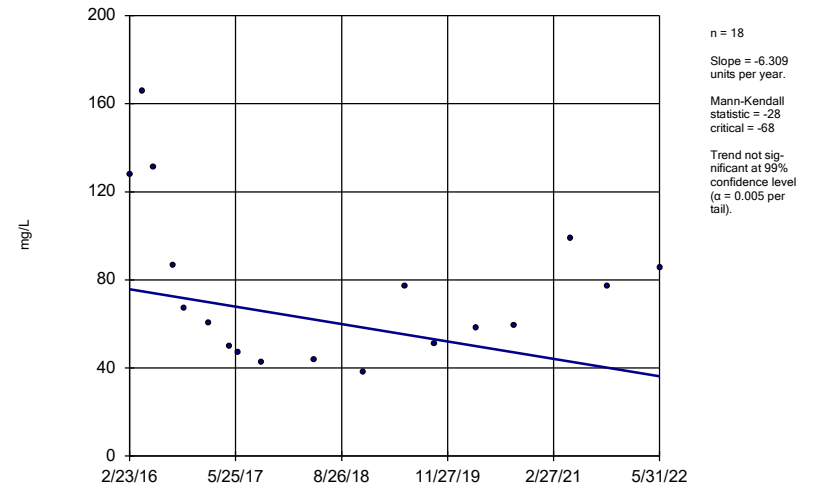
BY-GSA-MW-5



Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-GSA-MW-6



Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE G.

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

FIGURE H.

BARRY GYPSUM POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

FIGURE I.

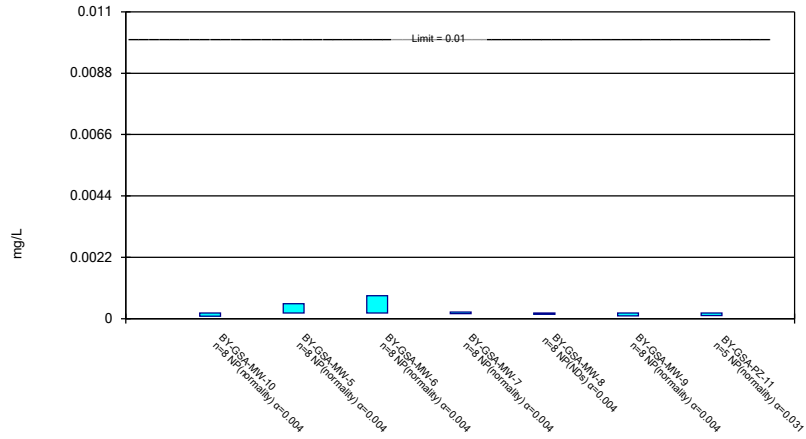
Confidence Interval Summary Table - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-GSA-MW-10	0.0002	0.00009	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.00053	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.000821	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-7	0.00024	0.000177	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-8	0.0002	0.00016	0.01	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.0002	0.0001	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-PZ-11	0.0002	0.000111	0.01	No	5	60	No	0.031	NP (normality)
Barium (mg/L)	BY-GSA-MW-10	0.1332	0.1148	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.226	0.0684	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1825	0.08783	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.09037	0.04733	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.04899	0.04121	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1737	0.146	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08233	0.03831	2	No	5	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.00066	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-7	0.00102	0.000464	0.004	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.001	0.0000867	0.005	No	8	62.5	No	0.004	NP (normality)
Cadmium (mg/L)	BY-GSA-MW-6	0.001	0.00011	0.005	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.000695	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	50	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-6	0.01	0.00223	0.1	No	8	25	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.00131	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.01	0.00209	0.1	No	8	12.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.000783	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003411	0.002233	0.1	No	5	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002657	0.002223	0.006	No	8	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.00606	0.00217	0.006	No	8	50	No	0.004	NP (Cohens/xfrm)
Cobalt (mg/L)	BY-GSA-MW-6	0.006267	0.00304	0.006	No	8	25	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000437	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.00131	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	5	40	No	0.031	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.163	0.8366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.309	0.4039	5	No	8	0	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.368	0.7306	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.202	0.03543	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.412	0.2366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.72	5	No	8	0	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.274	0.3067	5	No	5	0	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.125	0.08	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.125	0.0591	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.125	0.07	4	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.0001	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.005	0.0000994	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.00011	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.0000798	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.00023	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.005	0.00012	0.015	No	5	40	No	0.031	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	87.5	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.0002	0.0001	0.1	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.0002	0.00008	0.1	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.00125	0.000778	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-5	0.0217	0.00102	0.05	No	8	50	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-6	0.01143	0.003687	0.05	No	8	0	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.00102	0.00058	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.00102	0.00052	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.00204	0.00102	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.001376	0.0007653	0.05	No	5	40	No	0.01	Param.

Non-Parametric Confidence Interval

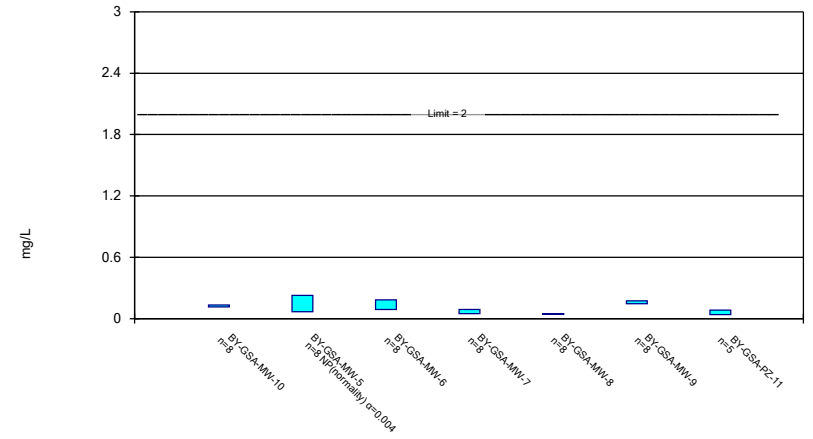
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

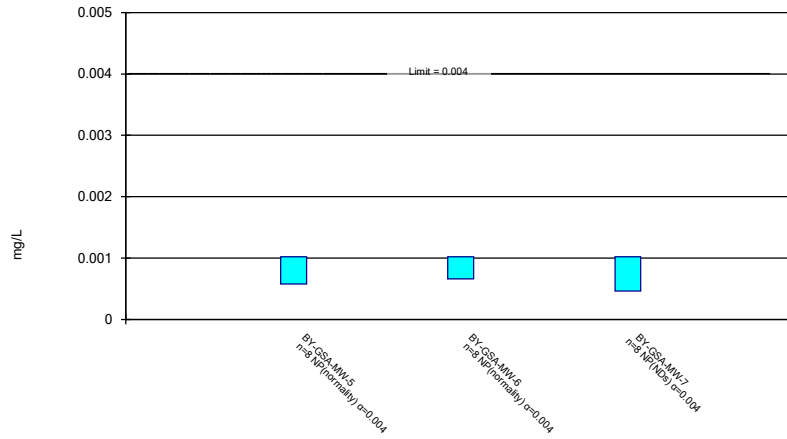
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

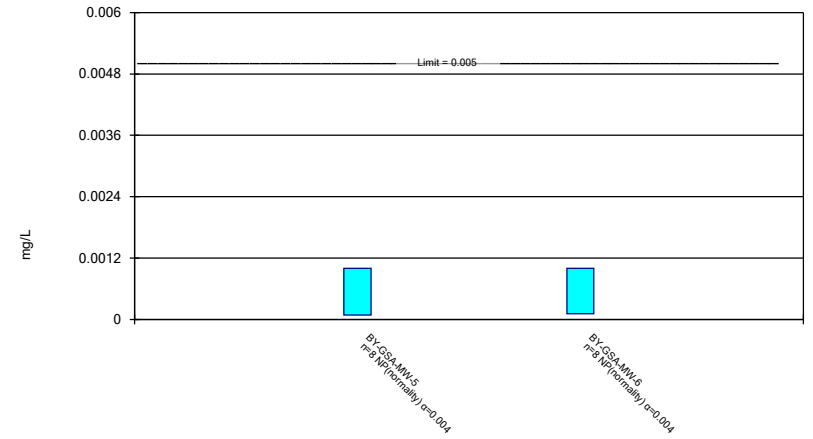
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Constituent: Beryllium Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

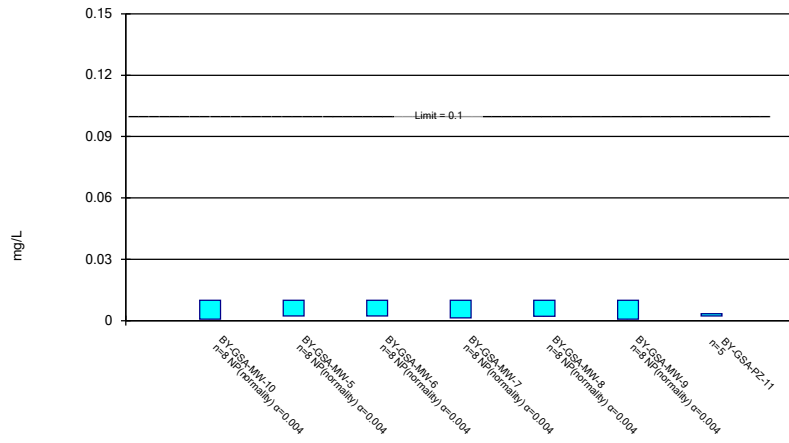
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

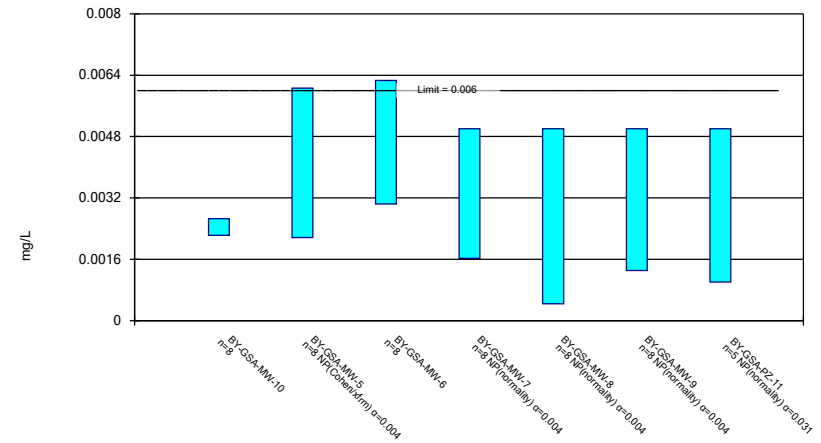
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 7/26/2022 10:48 PM View: AIV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

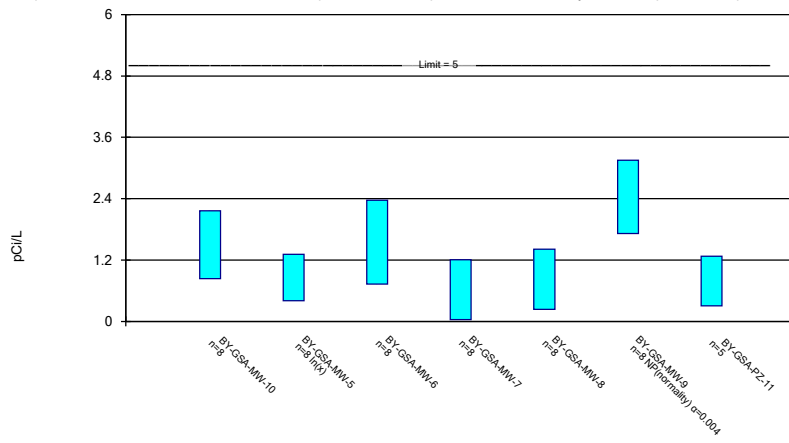
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 7/26/2022 10:48 PM View: AIV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

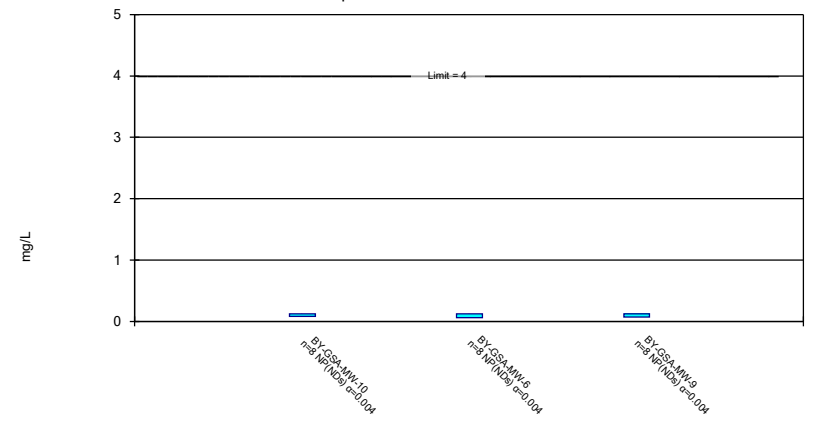
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:48 PM View: AIV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

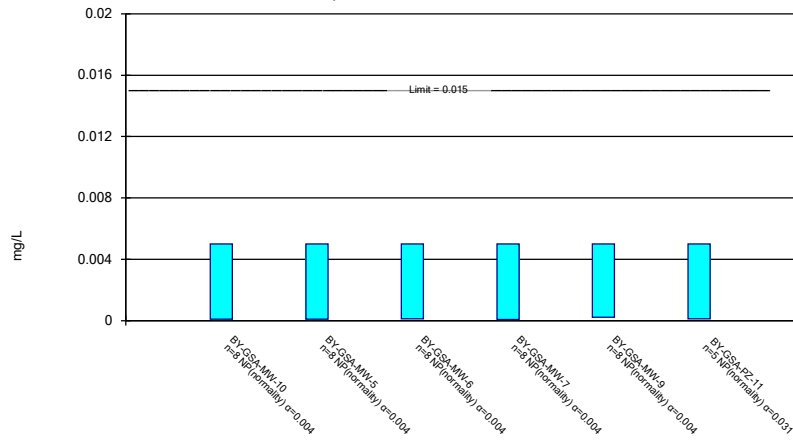
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



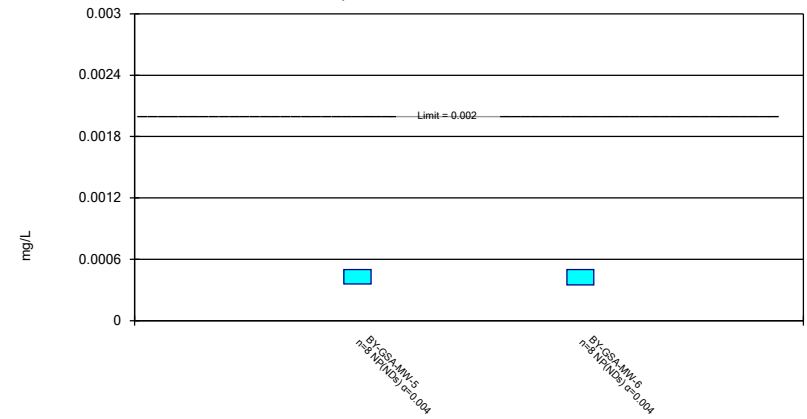
Constituent: Fluoride Analysis Run 7/26/2022 10:48 PM View: AIV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



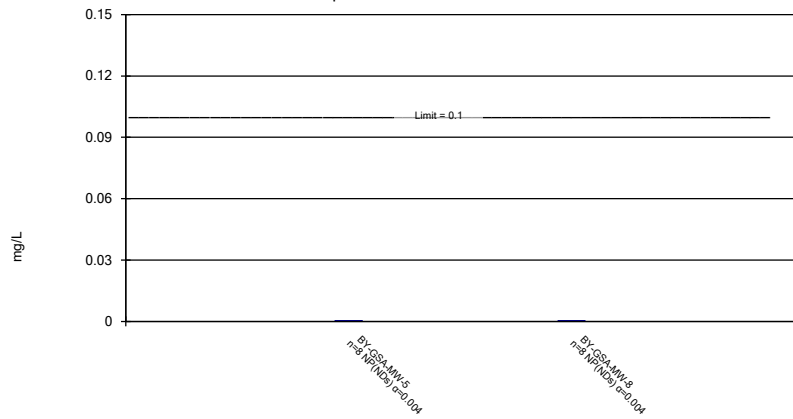
Constituent: Lead Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

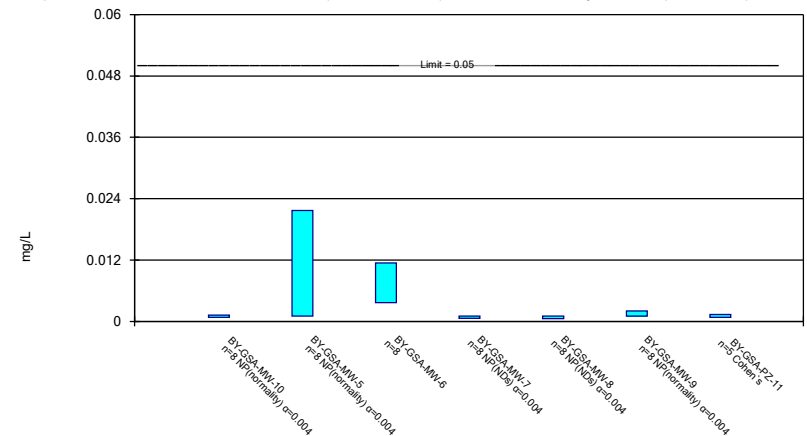
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.0002		<0.0002			<0.0002	
11/27/2018		<0.0002		<0.0002	<0.0002		
5/28/2019		<0.0002	<0.0002	<0.0002	<0.0002		
5/29/2019	<0.0002					<0.0002	
10/2/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
3/30/2020		<0.0002	<0.0002	<0.0002	<0.0002		
3/31/2020	<0.0002					<0.0002	<0.0002
9/8/2020		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
9/9/2020	<0.0002					<0.0002	
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.0002	0.000173 (J)	0.000111 (J)
10/18/2021			0.00032	0.00023			
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.0002	0.00013 (J)
5/31/2022		0.00053	0.00052				
6/1/2022	9E-05 (J)			0.00024	<0.0002	0.0001 (J)	<0.0002
Mean	0.0001686	0.0002789	0.0003326	0.0002059	0.000195	0.0001841	0.0001682
Std. Dev.	4.499E-05	0.0001463	0.0002273	1.983E-05	1.414E-05	3.528E-05	4.406E-05
Upper Lim.	0.0002	0.00053	0.000821	0.00024	0.0002	0.0002	0.0002
Lower Lim.	9E-05	0.0002	0.0002	0.000177	0.00016	0.0001	0.000111

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	0.112		0.0657			0.152	
11/27/2018		0.072		0.0427	0.0388		
5/28/2019		0.0684	0.17	0.0524	0.0412		
5/29/2019	0.125					0.155	
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16	
3/30/2020		0.0718	0.142	0.0788	0.0444		
3/31/2020	0.122					0.165	0.0499
9/8/2020		0.181	0.0981	0.0615	0.0494		0.05
9/9/2020	0.125					0.17	
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184	0.0597
10/18/2021			0.146	0.0859			
10/19/2021	0.115	0.0998			0.0452	0.151	0.0599
5/31/2022		0.226	0.202				
6/1/2022	0.136			0.0803	0.0477	0.142	0.0821
Mean	0.124	0.1122	0.1352	0.06885	0.0451	0.1599	0.06032
Std. Dev.	0.008685	0.05928	0.04465	0.0203	0.003672	0.01307	0.01313
Upper Lim.	0.1332	0.226	0.1825	0.09037	0.04899	0.1737	0.08233
Lower Lim.	0.1148	0.0684	0.08783	0.04733	0.04121	0.146	0.03831

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	0.000575 (J)	0.000763 (J)	0.000464 (J)
10/18/2021		<0.00102	<0.00102
10/19/2021	<0.00102		
5/31/2022	0.00071 (J)	0.00066 (J)	
6/1/2022			<0.00102
Mean	0.0009256	0.0009429	0.0009505
Std. Dev.	0.0001784	0.0001454	0.0001966
Upper Lim.	0.00102	0.00102	0.00102
Lower Lim.	0.000575	0.00066	0.000464

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
11/26/2018		<0.001
11/27/2018	<0.001	
5/28/2019	<0.001	<0.001
10/2/2019	<0.001	<0.001
3/30/2020	<0.001	<0.001
9/8/2020	<0.001	<0.001
5/12/2021	8.67E-05 (J)	0.000154 (J)
10/18/2021		0.00011 (J)
10/19/2021	0.00014 (J)	
5/31/2022	0.00012 (J)	0.00023
Mean	0.0006683	0.0006868
Std. Dev.	0.000458	0.0004335
Upper Lim.	0.001	0.001
Lower Lim.	8.67E-05	0.00011

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.01		<0.01			<0.01	
11/27/2018		<0.01		<0.01	<0.01		
5/28/2019		<0.01	0.00223 (J)	<0.01	0.00209 (J)		
5/29/2019	<0.01					<0.01	
10/2/2019	<0.01	<0.01	<0.01	<0.01	0.00223 (J)	<0.01	
3/30/2020		<0.01	0.00273 (J)	<0.01	0.00275 (J)		
3/31/2020	<0.01					<0.01	0.00249 (J)
9/8/2020		0.00221 (J)	0.00237 (J)	<0.01	0.00224 (J)		0.00253 (J)
9/9/2020	<0.01					<0.01	
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)	0.00281
10/18/2021			0.00335	0.00131			
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)	0.00336
5/31/2022		0.00281	0.00412				
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104	0.00292
Mean	0.006547	0.006252	0.004775	0.006784	0.003276	0.006579	0.002822
Std. Dev.	0.004766	0.004011	0.003282	0.004439	0.002725	0.004722	0.0003517
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.003411
Lower Lim.	0.000695	0.00221	0.00223	0.00131	0.00209	0.000783	0.002233

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	0.00205 (J)		<0.005			<0.005	
11/27/2018		<0.005		<0.005	<0.005		
5/28/2019		<0.005	0.00301 (J)	<0.005	<0.005		
5/29/2019	0.00261 (J)					<0.005	
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005		
3/31/2020	0.00238 (J)					<0.005	<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005		<0.005
9/9/2020	0.00241 (J)					<0.005	
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177	0.00101
10/18/2021			0.00552	0.00164			
10/19/2021	0.00238	0.00217			0.00049	0.00156	0.00117
5/31/2022		0.00606	0.00724				
6/1/2022	0.0027			0.00162	0.00048	0.00131	0.00143
Mean	0.00244	0.004387	0.004654	0.003772	0.003301	0.003705	0.002722
Std. Dev.	0.0002049	0.001401	0.001522	0.001696	0.002345	0.001792	0.002085
Upper Lim.	0.002657	0.00606	0.006267	0.005	0.005	0.005	0.005
Lower Lim.	0.002223	0.00217	0.00304	0.00162	0.000437	0.00131	0.00101

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	1.04		0.815			1.72	
11/27/2018		0.611		0.109 (U)	0.691		
5/28/2019		0.391 (U)	2.08	-0.428 (U)	0.311 (U)		
5/29/2019	0.548 (U)					2.2	
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2	
3/30/2020		0.525	1.54	0.939	0.397 (U)		
3/31/2020	1.01					1.88	0.968
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)		0.468 (U)
9/9/2020	1.32					2.11	
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94	0.515 (U)
10/18/2021			2.03	0.69 (U)			
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15	0.87 (U)
5/31/2022		2.31	2.22				
6/1/2022	2.27			0.99	1.37	2.05	1.13
Mean	1.5	0.8525	1.549	0.6188	0.8241	2.131	0.7902
Std. Dev.	0.6256	0.6189	0.7723	0.5503	0.5543	0.4368	0.2885
Upper Lim.	2.163	1.309	2.368	1.202	1.412	3.15	1.274
Lower Lim.	0.8366	0.4039	0.7306	0.03543	0.2366	1.72	0.3067

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-6	BY-GSA-MW-9
11/26/2018	0.08 (J)	<0.125	0.07 (J)
5/28/2019		0.0591 (J)	
5/29/2019	<0.125		<0.125
10/2/2019	<0.125	<0.125	<0.125
3/30/2020		<0.125	
3/31/2020	<0.125		<0.125
9/8/2020		<0.125	
9/9/2020	<0.125		<0.125
5/12/2021	<0.125	<0.125	<0.125
10/18/2021		<0.125	
10/19/2021	<0.125		<0.125
5/31/2022		<0.125	
6/1/2022	<0.125		<0.125
Mean	0.1194	0.1168	0.1181
Std. Dev.	0.01591	0.0233	0.01945
Upper Lim.	0.125	0.125	0.125
Lower Lim.	0.08	0.0591	0.07

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.005		<0.005		<0.005	
11/27/2018		<0.005		<0.005		
5/28/2019		<0.005	<0.005	<0.005		
5/29/2019	<0.005				<0.005	
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	<0.005	<0.005		
3/31/2020	<0.005				<0.005	<0.005
9/8/2020		<0.005	<0.005	<0.005		<0.005
9/9/2020	<0.005				<0.005	
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	0.000288	0.000208
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			0.00025	0.00014 (J)
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	0.00023	0.00012 (J)
Mean	0.003164	0.003192	0.003179	0.003155	0.003221	0.002094
Std. Dev.	0.002534	0.002495	0.002513	0.002546	0.002455	0.002653
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0001	9.94E-05	0.00011	7.98E-05	0.00023	0.00012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
11/26/2018		<0.0005
11/27/2018	<0.0005	
5/28/2019	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005
9/8/2020	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005
10/18/2021		<0.0005
10/19/2021	<0.0005	
5/31/2022	0.00036 (J)	0.00035 (J)
Mean	0.0004825	0.0004813
Std. Dev.	4.95E-05	5.303E-05
Upper Lim.	0.0005	0.0005
Lower Lim.	0.00036	0.00035

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-8
11/27/2018	<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002
10/19/2021	0.0001 (J)	8E-05 (J)
5/31/2022	<0.0002	
6/1/2022		<0.0002
Mean	0.0001875	0.000185
Std. Dev.	3.536E-05	4.243E-05
Upper Lim.	0.0002	0.0002
Lower Lim.	0.0001	8E-05

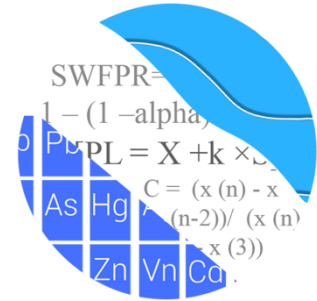
Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.00102		0.00286 (J)			<0.00102	
11/27/2018		<0.00102		<0.00102	<0.00102		
5/28/2019		<0.00102	0.0089 (J)	<0.00102	<0.00102		
5/29/2019	<0.00102					<0.00102	
10/2/2019	<0.00102	<0.00102	0.00472 (J)	<0.00102	<0.00102	<0.00102	
3/30/2020		<0.00102	0.00658 (J)	<0.00102	<0.00102		
3/31/2020	<0.00102					<0.00102	<0.00102
9/8/2020		0.0052 (J)	0.0052 (J)	<0.00102	<0.00102		<0.00102
9/9/2020	<0.00102					<0.00102	
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.00102	<0.00102	0.00128	0.00111
10/18/2021			0.00672	<0.00102			
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118	0.00114
5/31/2022		0.0217	0.0132				
6/1/2022	0.00125			0.00058 (J)	<0.00102	0.00204	0.00132
Mean	0.0009947	0.006272	0.00756	0.000965	0.0009575	0.0012	0.001122
Std. Dev.	0.0001427	0.008119	0.003654	0.0001556	0.0001768	0.0003534	0.000123
Upper Lim.	0.00125	0.0217	0.01143	0.00102	0.00102	0.00204	0.001376
Lower Lim.	0.000778	0.00102	0.003687	0.00058	0.00052	0.00102	0.0007653

GROUNDWATER STATS CONSULTING



January 4, 2023

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Gypsum Pond
2nd Semi-Annual Analysis – November 2022

Dear Mr. Dyer,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the November 2022 2nd semi-annual sample event for Alabama Power Company's Plant Barry Gypsum Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-MW-10, and BY-GSA-PZ-11

Note that BY-GSA-PZ-11 was converted from a piezometer to a downgradient monitoring well. Since this well has the required minimum of 4 samples, data from this well are evaluated with confidence intervals for Appendix IV constituents. Prediction limits will be used to evaluate Appendix III constituents when a minimum of 8 samples are available.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Kristina Rayner, Founder and Senior Statistician for Groundwater Stats Consulting.

The CCR program consists of the following constituents:

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). A substitution of the most recent reporting limit is used for non-detect data. Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Any flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. Summary tables of all flagged values follow this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 15
- # Background Samples (Interwell): 76
- # Constituents: 7
- # Downgradient wells: 6

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for chloride and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, fluoride, pH, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (USEPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.

- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update – Conducted in Fall 2021

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, were updated during the Fall 2021 by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new data points. Historical data were evaluated for updating with newer data through May 2021 through the use of time series graphs to identify potential outliers, when necessary, as well as the Mann Whitney test for equality of medians. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate chloride and sulfate at all wells due to natural spatial variation for these parameters.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, fluoride, pH and TDS.

Outlier Analysis

Proposed background data through May 2021 were reviewed to identify any newly suspected outliers at all wells for chloride and sulfate, and through October 2021 at

upgradient wells for boron, calcium, fluoride, pH, and TDS. No new outliers were noted. When values are identified as outliers, these measurements are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative (i.e., lower) from a regulatory perspective. Also, outliers that are not identified as significant by Tukey's test may be identified visually. Typically, the most recent value is not flagged as an outlier in the event that it precedes future trends. As mentioned above, all flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through May 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- Sulfate: BY-GSA-MW-8 and BY-GSA-MW-9

Decrease

- Chloride: BY-UP-MW-4 (upgradient)

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a naturally occurring shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

The record for chloride at upgradient well BY-GSA-MW-4 was updated since data at upgradient wells represent naturally occurring groundwater quality unimpacted by the facility. Additionally, the decreasing shift between historical and compliance data was small and signifies lower concentrations, which subsequently results in a more conservative (i.e., lower) statistical limit.

Regarding the statistically significant increases in medians for sulfate at wells BY-GSA-MW-8 and BY-GSA-MW-9, the group of new measurements were similar to those observed historically for both wells, and similar to reported concentrations of sulfate in at least one upgradient well which typically indicates natural variation in groundwater quality rather than a result of practices from the facility. Therefore, these records were updated with more recent data.

Trend Tests – Upgradient Wells

The Sen’s Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. The following upgradient well/constituent pairs were found to have statistically significant trends:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-2
- TDS: BY-UP-MW-1, BY-UP-MW-2, and BY-UP-MW-4

Decreasing

- pH: BY-UP-MW-2, BY-UP-MW-3 and BY-UP-MW-4

The median slopes for calcium, pH and TDS at the above wells were small relative to average concentrations at these wells and reported measurements were similar across all upgradient wells. In the case of fluoride, the increasing trend is a result of non-detects in the more recent portion of the record compared to trace values reported in the historical portion of the record. Therefore, no adjustments were required to any of the records.

Evaluation of Appendix III Parameters – November 2022

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. The most recent sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release

from the facility. Background data are re-evaluated when a minimum of 4 compliance samples are available.

Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

Prediction Limits – November 2022

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for chloride and sulfate using screened background data through May 2021 at each well (Figure D). The November 2022 sample at each well was compared to its respective intrawell prediction limit. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs, and a summary of all flagged outliers follows this report (Figure C).

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, fluoride, pH, and TDS (Figure E).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. A summary of the prediction limits results may be found in the Prediction Limit Summary tables following this letter (pages 14-17). The following exceedances were noted for the interwell and intrawell prediction limits:

Intrawell:

- Chloride: BY-GSA-MW-5 and BY-GSA-MW-7
- Sulfate: BY-GSA-MW-5

Interwell:

- Boron: BY-GSA-MW-5 and BY-GSA-MW-6
- Calcium: BY-GSA-MW-5 and BY-GSA-MW-6
- TDS: BY-GSA-MW-5 and BY-GSA-MW-6

Trend Tests

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (Figure F). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. A summary of the trend test results follows this letter (pages 18-19). Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Calcium: BY-UP-MW-3 and BY-UP-MW-4 (both upgradient)
- Chloride: BY-GSA-MW-7
- TDS: BY-UP-MW-1 and BY-UP-MW-4 (both upgradient)

Decreasing:

- Chloride: BY-UP-MW-2, BY-UP-MW-3, BY-UP-MW-4 (all upgradient)

Evaluation of Appendix IV Parameters – November 2022

Data from upgradient wells for Appendix IV parameters were reassessed for outliers during previous analyses. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2023 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

Note that due to varying reporting limits, the most recent reporting limits of 0.002 mg/L for arsenic, 0.0002 mg/L for cadmium, and 0.005 mg/L for cobalt were substituted for all non-detects.

Interwell Upper Tolerance Limits

First, background limits were determined using tolerance limits constructed from pooled upgradient well data through October 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed. A summary table of the upper tolerance limits (page 20).

Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure J, page 21) in the confidence interval comparisons described below.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through November 2022 for each of the Appendix IV parameters (Figure I). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the highest and lowest values in background as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects.

As mentioned above, well/constituent pairs with 100% non-detects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of deselected well/constituent pairs also follows this report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter (page 22). No exceedances were noted for any of the well/constituent pairs.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Barry Gypsum Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

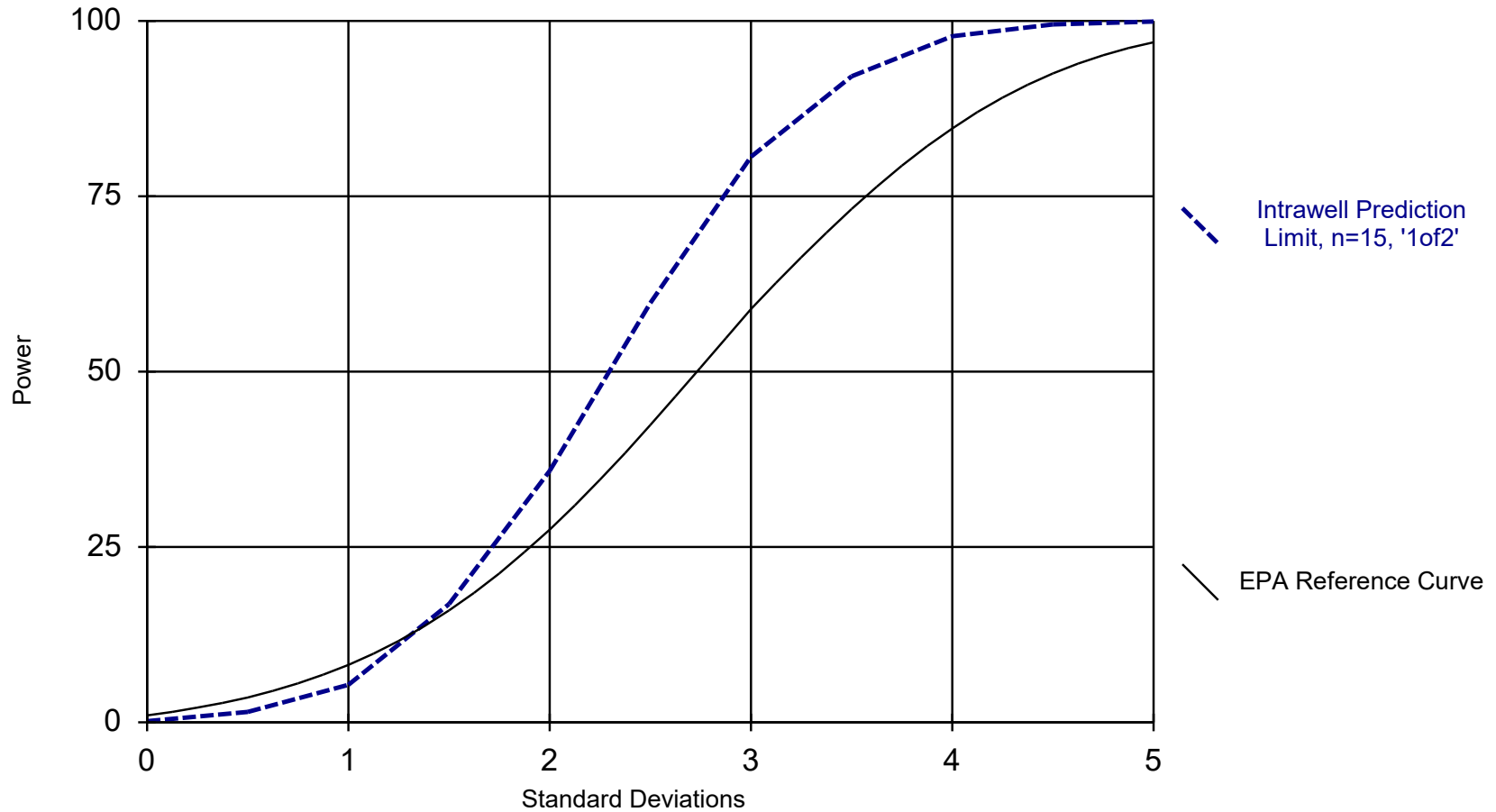


Project Manager
Andrew Collins



Senior Statistician
Kristina Rayner

Intrawell Power Curve

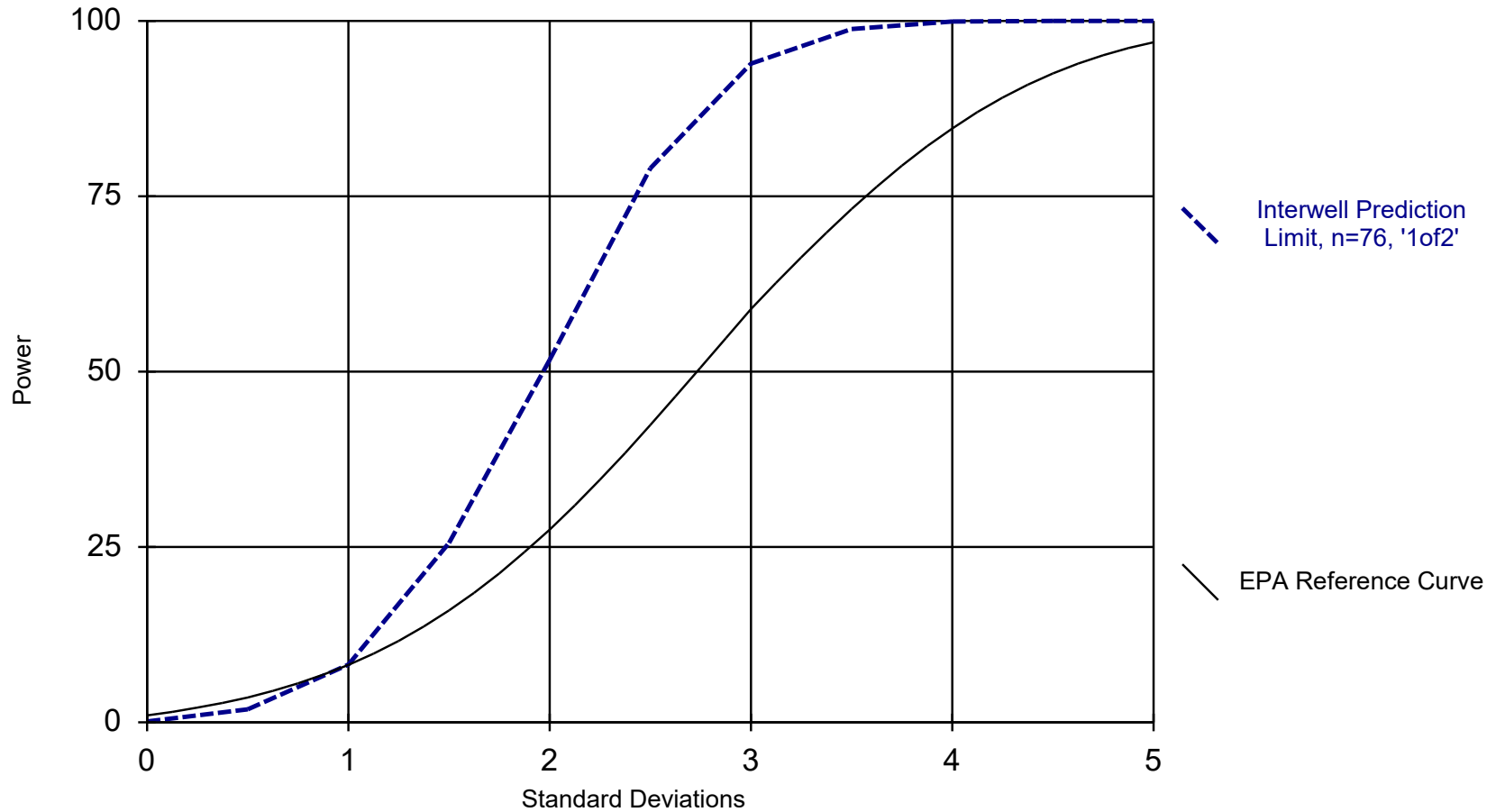


Kappa = 2.25, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/3/2023 3:15 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Interwell Power Curve



Kappa = 1.861, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/3/2023 3:15 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

100% Non-Detects: Appendix IV Downgradient

Analysis Run 1/3/2023 2:15 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Antimony (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Beryllium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Cadmium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Fluoride (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Lead (mg/L)

BY-GSA-MW-8

Lithium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Mercury (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Molybdenum (mg/L)

BY-GSA-MW-10, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-9, BY-GSA-PZ-11

Thallium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:08 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	11/2/2022	8.44	Yes	16	n/a	n/a	6.25	n/a	n/a	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	11/2/2022	22.7	Yes	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2		
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	11/2/2022	51.4	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2		

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:08 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	11/2/2022	3.07	No	16	3.79	0.6038	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	11/2/2022	8.44	Yes	16	n/a	n/a	6.25	n/a	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	11/2/2022	6.58	No	16	4.996	1.21	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	11/2/2022	22.7	Yes	16	1.782	0.4263	0	None	In(x)	0.001254	Param Intra 1 of 2	
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	11/2/2022	5.08	No	16	4.673	0.412	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	11/2/2022	3.14	No	16	6.335	2.163	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-1	8.264	n/a	11/1/2022	2.37	No	16	1.897	0.4435	6.25	None	sqrt(x)	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.698	n/a	11/1/2022	2.22	No	16	3.416	1.035	6.25	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	11/1/2022	3.09	No	16	n/a	n/a	6.25	n/a	n/a	No	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	11/1/2022	3.3	No	16	1.912	0.08933	0	None	sqrt(x)	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	11/2/2022	11.5	No	16	9.999	1.445	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	11/2/2022	51.4	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2	
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	11/2/2022	36.9	No	15	18.13	11.34	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	11/2/2022	2.35	No	16	3.349	0.8938	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	11/2/2022	5.34	No	16	3.852	0.8066	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	11/2/2022	12.2	No	16	8.877	2.273	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	11/1/2022	11.3	No	16	3.458	0.85	0	None	sqrt(x)	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	11/1/2022	7.11	No	16	6.282	1.406	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	11/1/2022	6.83	No	16	7.496	0.6224	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	11/1/2022	4.59	No	16	n/a	n/a	0	n/a	n/a	No	0.006456	NP Intra (normality) 1 of 2

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	11/2/2022	1.69	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	11/2/2022	0.741	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.069	n/a	11/2/2022	10.9	Yes	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2		
Calcium, total (mg/L)	BY-GSA-MW-6	2.069	n/a	11/2/2022	7.78	Yes	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2		
TDS (mg/L)	BY-GSA-MW-5	58	n/a	11/2/2022	115	Yes	76	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2		
TDS (mg/L)	BY-GSA-MW-6	58	n/a	11/2/2022	83.3	Yes	76	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2		

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	11/2/2022	0.0502J	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	11/2/2022	1.69	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	11/2/2022	0.741	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	11/2/2022	0.1015ND	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	11/2/2022	0.0343J	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	11/2/2022	0.0809J	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.069	n/a	11/2/2022	1.15	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-5	2.069	n/a	11/2/2022	10.9	Yes	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-6	2.069	n/a	11/2/2022	7.78	Yes	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-7	2.069	n/a	11/2/2022	1.96	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-8	2.069	n/a	11/2/2022	1.04	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-9	2.069	n/a	11/2/2022	1.67	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	11/2/2022	4.39	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	11/2/2022	4.42	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	11/2/2022	4.84	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	11/2/2022	4.75	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	11/2/2022	3.84	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	11/2/2022	3.93	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
TDS (mg/L)	BY-GSA-MW-10	58	n/a	11/2/2022	36.7	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	11/2/2022	115	Yes	76	n/a	n/a	9.211	n/a	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	11/2/2022	83.3	Yes	76	n/a	n/a	9.211	n/a	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	11/2/2022	56	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	11/2/2022	34	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	11/2/2022	34.7	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:13 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.06981	96	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.119	115	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.725	105	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.3672	-110	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.05489	-83	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05635	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	2.028	94	74	Yes	19	21.05	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:13 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.02314	36	74	No	19	15.79	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.02903	23	74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.00002481	-33	-74	No	19	42.11	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	29	74	No	19	84.21	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	74	No	19	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	27	74	No	19	89.47	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	-0.1003	-9	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-0.932	-37	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	0	3	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.04873	50	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.06981	96	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.119	115	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-5	0.2723	42	74	No	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.725	105	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1905	-49	-74	No	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.3672	-110	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.05489	-83	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05635	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	-0.1902	-4	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	1.189	47	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0.0178	2	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.09149	-41	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.04825	-24	-74	No	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-5	2.744	23	74	No	19	5.263	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-3.899	-22	-74	No	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	2.576	69	74	No	19	5.263	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	1.577	62	74	No	19	10.53	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.9846	45	74	No	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	2.028	94	74	Yes	19	21.05	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

BARRY GYPSUM POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

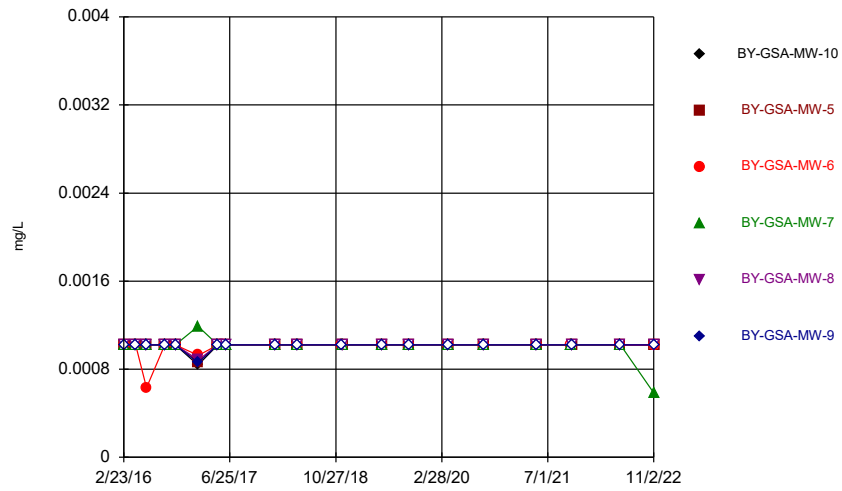
Confidence Intervals - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:17 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-7	0.00102	0.000586	0.006	No	8	0.0009657	0.0001534	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.002	0.00009	0.01	No	8	0.001062	0.001003	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.002	0.0002	0.01	No	8	0.001222	0.0008382	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.002	0.00032	0.01	No	8	0.001261	0.0008022	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-7	0.002	0.000177	0.01	No	8	0.001122	0.0009393	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-8	0.002	0.000083	0.01	No	8	0.00153	0.0008698	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.002	0.0001	0.01	No	8	0.001302	0.000963	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-PZ-11	0.002	0.000085	0.01	No	6	0.001054	0.001036	50	None	No	0.0155	NP (normality)
Barium (mg/L)	BY-GSA-MW-10	0.1347	0.1185	2	No	8	0.1266	0.007652	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.1828	0.06015	2	No	8	0.1215	0.05786	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-6	0.1954	0.1095	2	No	8	0.1525	0.04049	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.1085	0.05131	2	No	8	0.07989	0.02697	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.05151	0.04274	2	No	8	0.04713	0.004139	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1739	0.1431	2	No	8	0.1585	0.01451	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08862	0.04201	2	No	6	0.06532	0.01696	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	0.0009152	0.0001745	62.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.000408	0.004	No	8	0.0008664	0.0002334	62.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-7	0.00102	0.000464	0.004	No	8	0.0009505	0.0001966	87.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.0002	0.0000867	0.005	No	8	0.000167	0.00004508	50	None	No	0.004	NP (normality)
Cadmium (mg/L)	BY-GSA-MW-6	0.0001979	0.0001174	0.005	No	8	0.000184	0.00003694	50	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.000663	0.1	No	8	0.00538	0.00494	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	0.005326	0.003875	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-6	0.004305	0.002355	0.1	No	8	0.00333	0.0009198	12.5	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.00131	0.1	No	8	0.005714	0.004583	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.002512	0.002068	0.1	No	8	0.002288	0.0002202	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.000783	0.1	No	8	0.005444	0.004871	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003245	0.002378	0.1	No	6	0.002812	0.0003156	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002634	0.002356	0.006	No	8	0.002495	0.000131	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.00571	0.001993	0.006	No	8	0.004596	0.001614	37.5	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-6	0.006588	0.002554	0.006	No	8	0.004571	0.001903	12.5	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	0.003432	0.001688	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000437	0.006	No	8	0.00274	0.002416	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.00118	0.006	No	8	0.003227	0.001903	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	6	0.002508	0.001937	33.33	None	No	0.0155	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.176	0.8984	5	No	8	1.537	0.6027	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.521	0.3834	5	No	8	0.9311	0.6238	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.416	0.9038	5	No	8	1.66	0.7132	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.129	0.5618	5	No	8	0.7414	0.5294	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.461	0.2799	5	No	8	0.8702	0.557	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.88	5	No	8	2.158	0.4143	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.129	0.3962	5	No	6	0.7627	0.2667	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-6	0.125	0.0591	4	No	8	0.1168	0.0233	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.0001	0.015	No	8	0.002554	0.002614	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.005	0.0000994	0.015	No	8	0.002585	0.002582	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.00011	0.015	No	8	0.002572	0.002595	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.0000798	0.015	No	8	0.002546	0.002624	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.00023	0.015	No	8	0.002625	0.002539	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.000208	0.00012	0.015	No	6	0.000178	0.00003784	50	None	No	0.0155	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	0.0004825	0.0000495	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	0.0004813	0.00005303	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.0002	0.0001	0.1	No	8	0.0001875	0.00003536	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.0002	0.00008	0.1	No	8	0.000185	0.00004243	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.01	0.000778	0.05	No	8	0.005523	0.004789	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-5	0.01936	0.001381	0.05	No	8	0.0126	0.007672	37.5	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01346	0.004843	0.05	No	8	0.009153	0.004066	0	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.00102	0.00058	0.05	No	8	0.000965	0.0001556	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.00102	0.00052	0.05	No	8	0.0009575	0.0001768	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.01	0.00118	0.05	No	8	0.00581	0.004489	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.01	0.00111	0.05	No	6	0.0042	0.004496	33.33	None	No	0.0155	NP (normality)

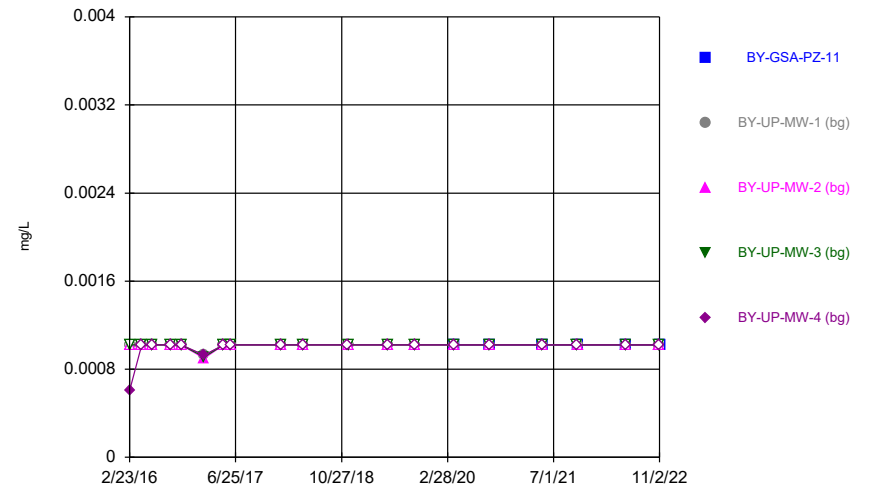
FIGURE A.

Time Series



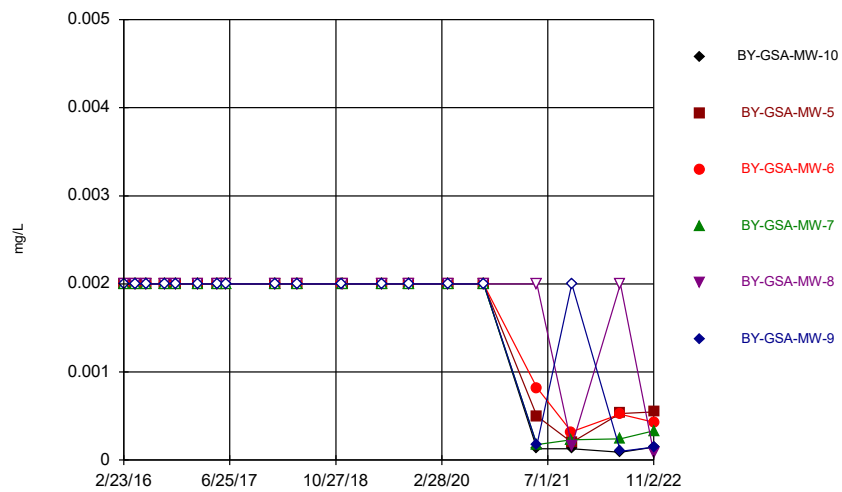
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



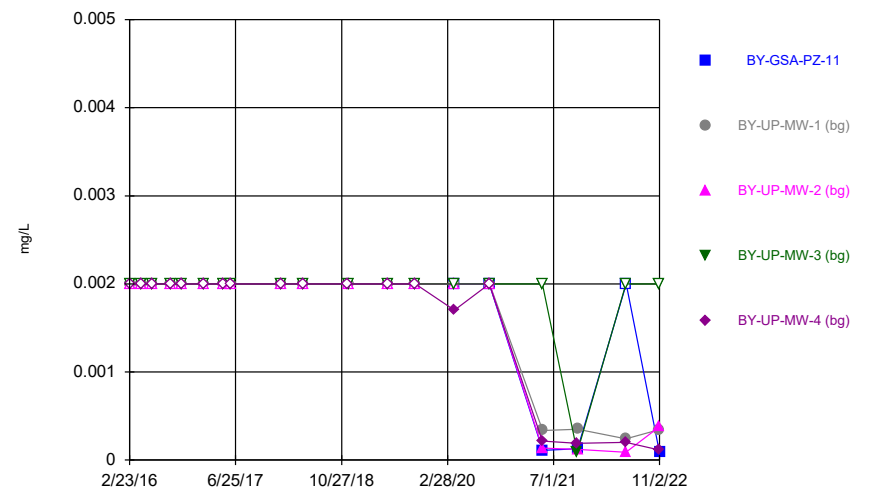
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



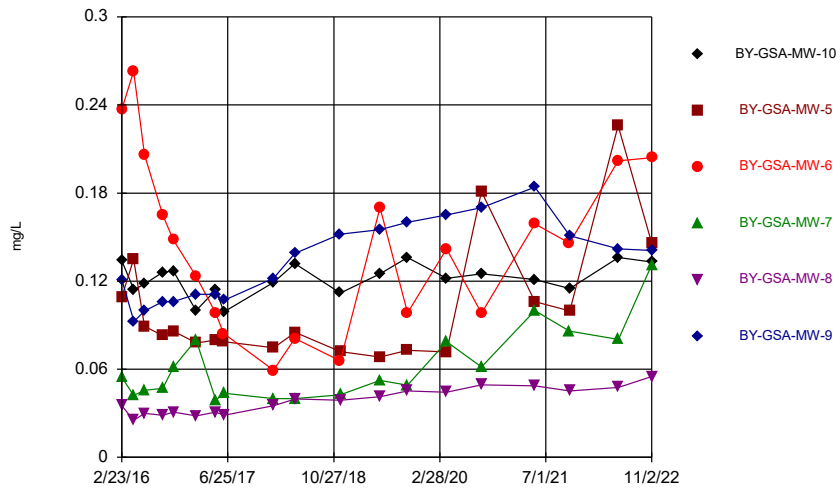
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



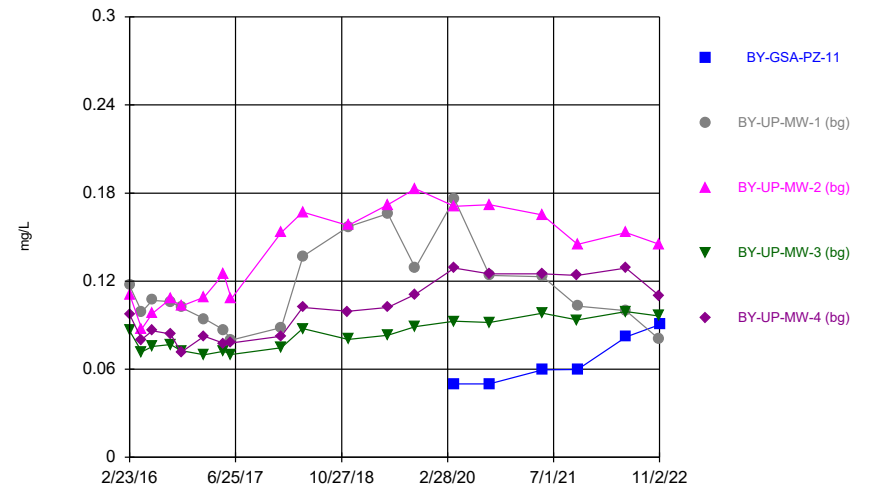
Constituent: Arsenic Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



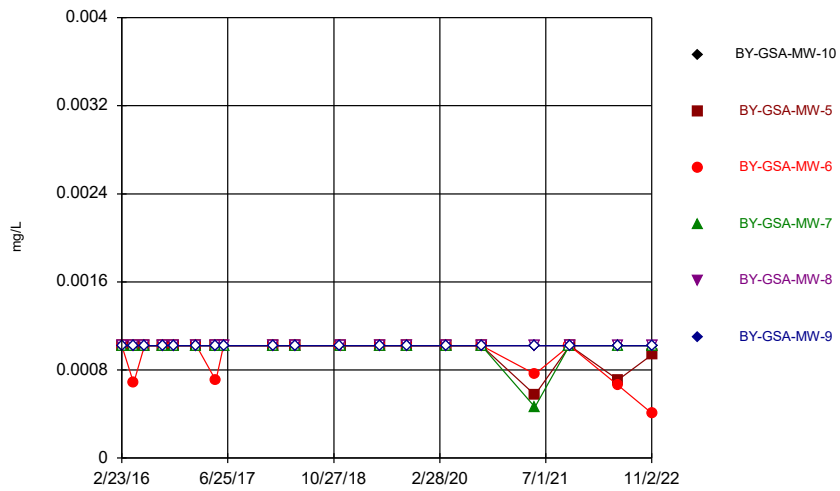
Constituent: Barium Analysis Run 1/3/2023 1:57 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



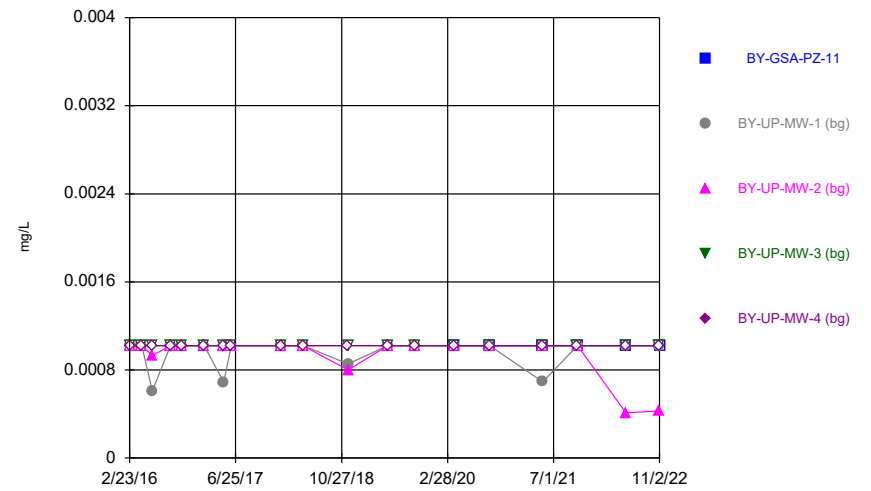
Constituent: Barium Analysis Run 1/3/2023 1:57 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



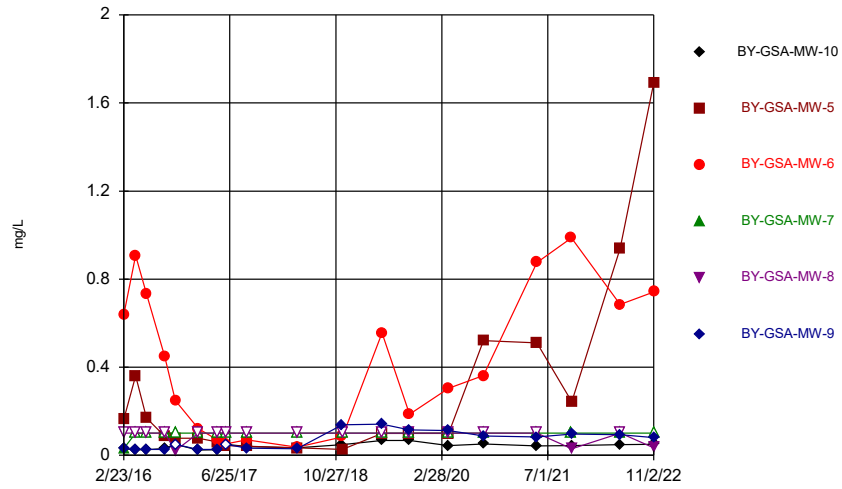
Constituent: Beryllium Analysis Run 1/3/2023 1:57 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



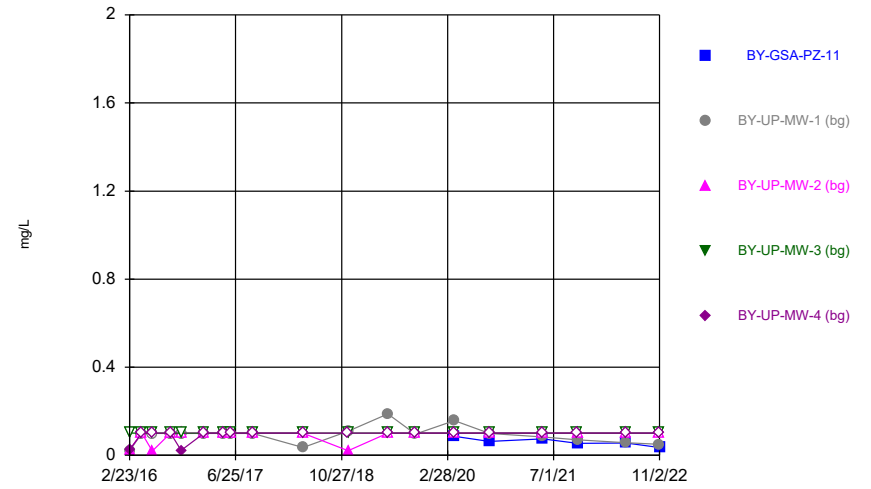
Constituent: Beryllium Analysis Run 1/3/2023 1:57 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



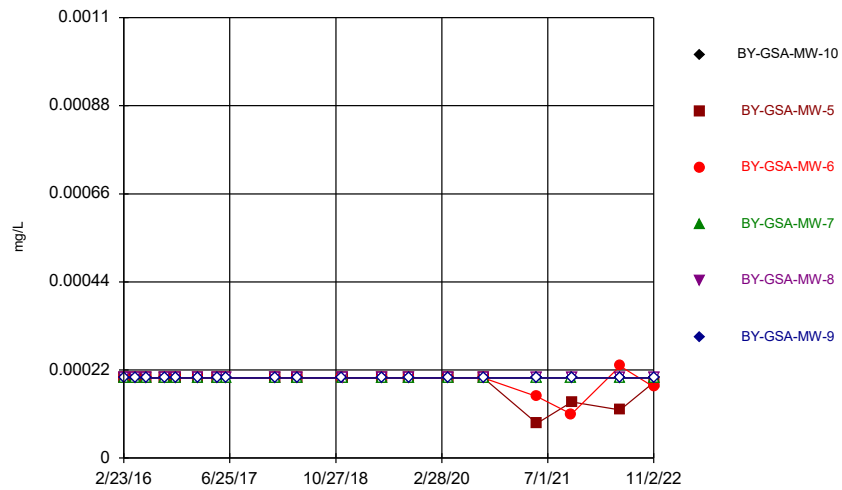
Constituent: Boron Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



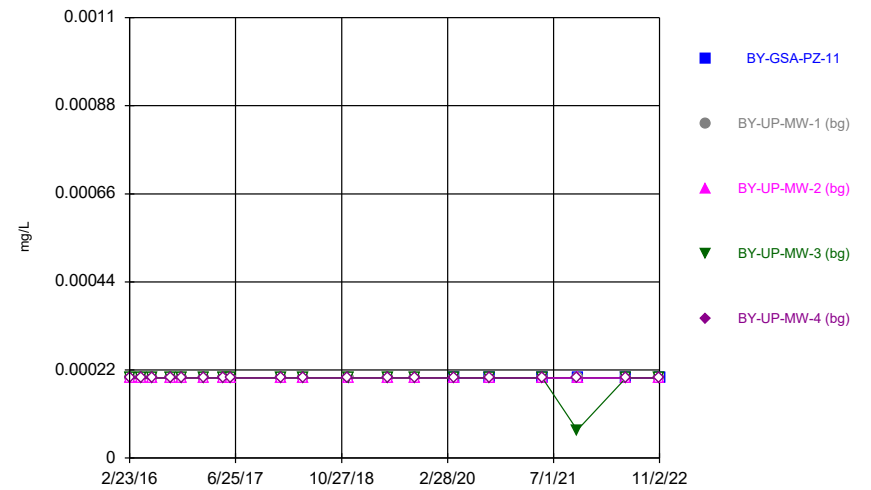
Constituent: Boron Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



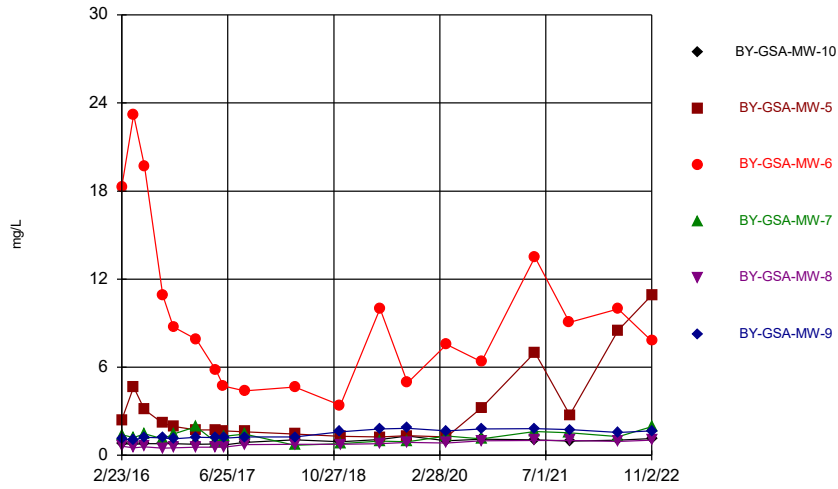
Constituent: Cadmium Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



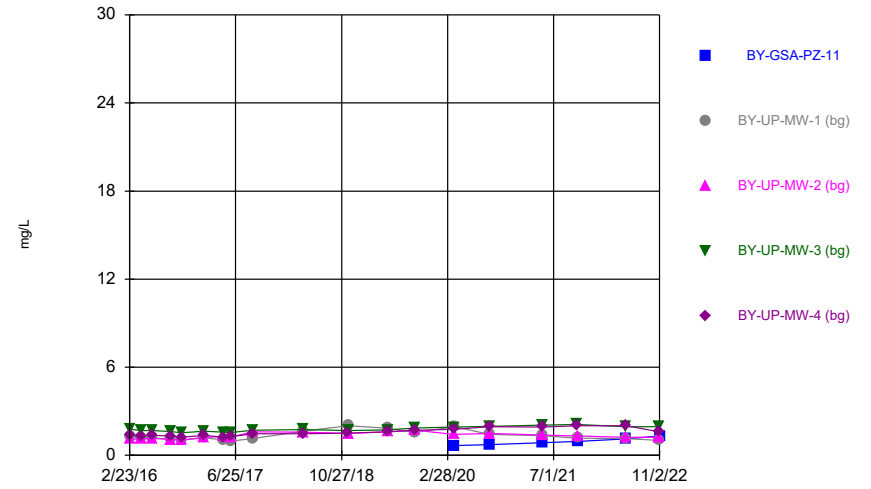
Constituent: Cadmium Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



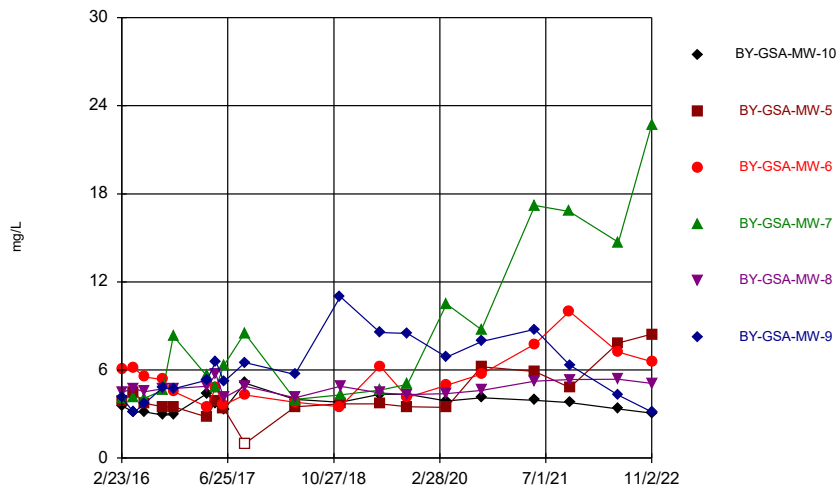
Constituent: Calcium, total Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



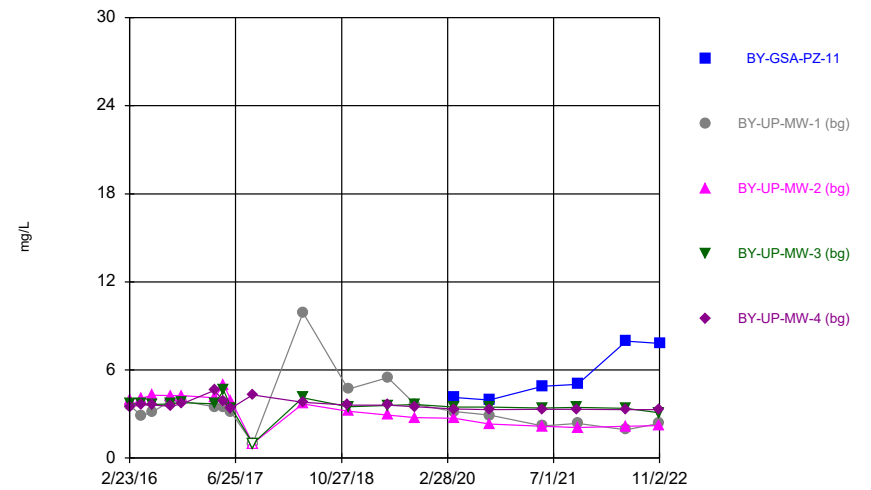
Constituent: Calcium, total Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



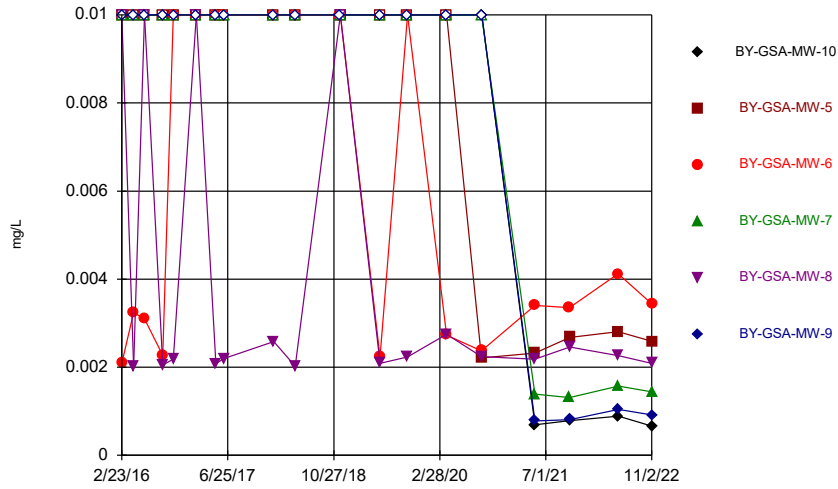
Constituent: Chloride, total Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



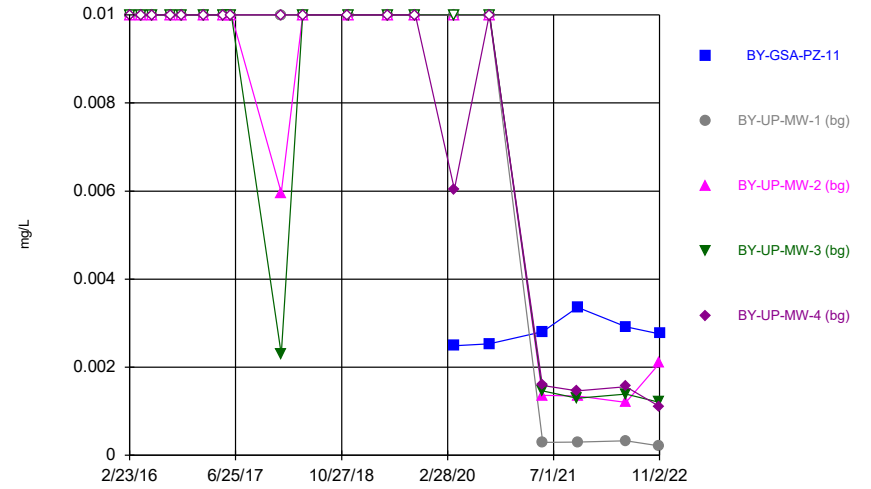
Constituent: Chloride, total Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



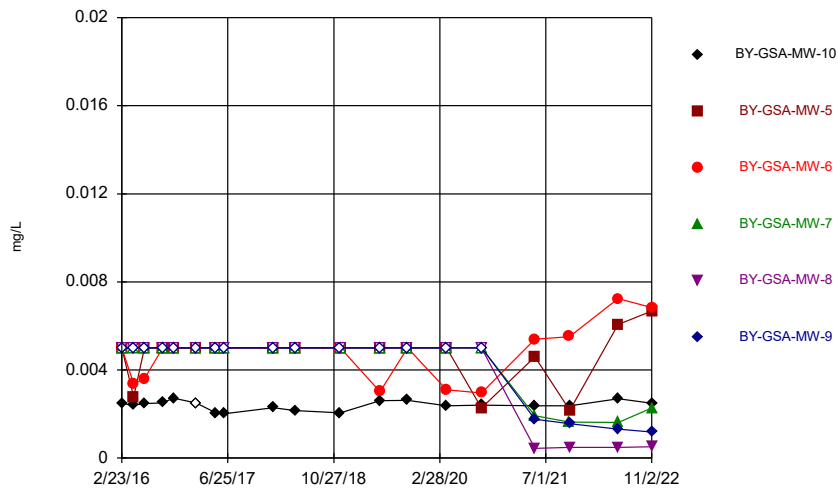
Constituent: Chromium Analysis Run 1/3/2023 1:57 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



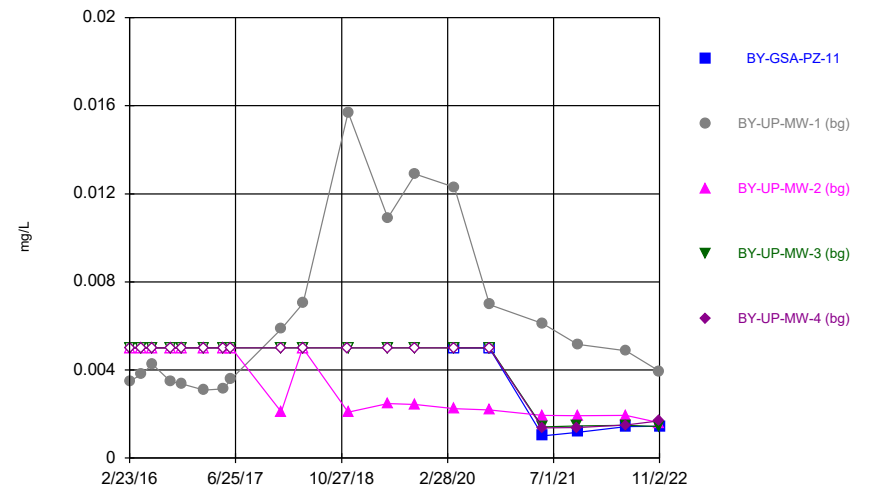
Constituent: Chromium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



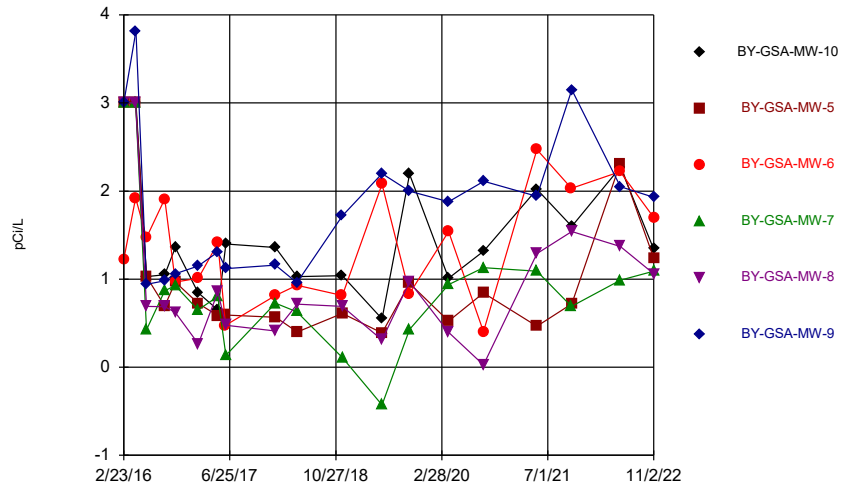
Constituent: Cobalt Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



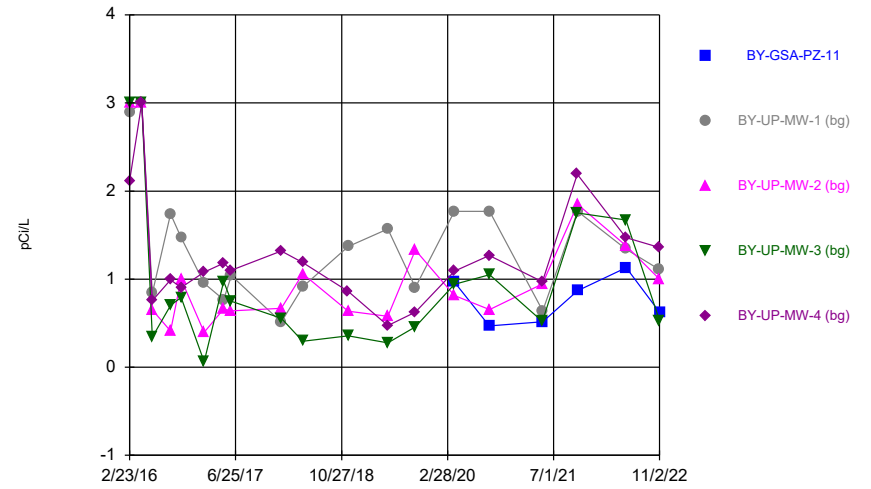
Constituent: Cobalt Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



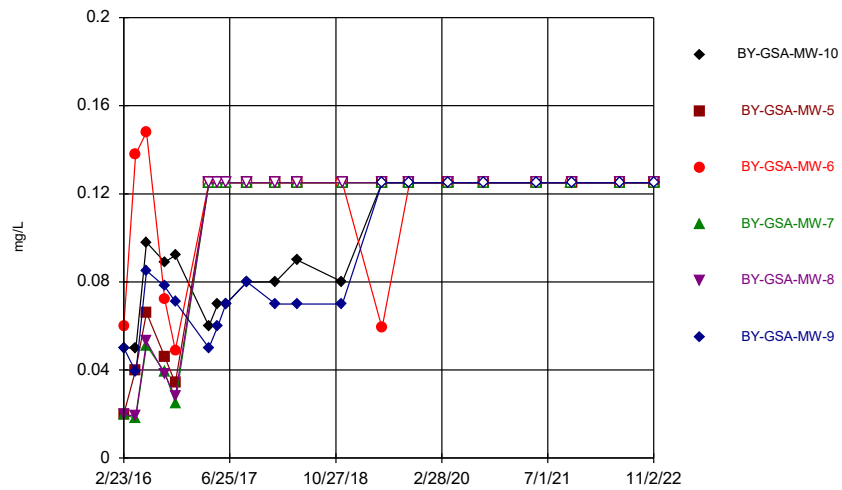
Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



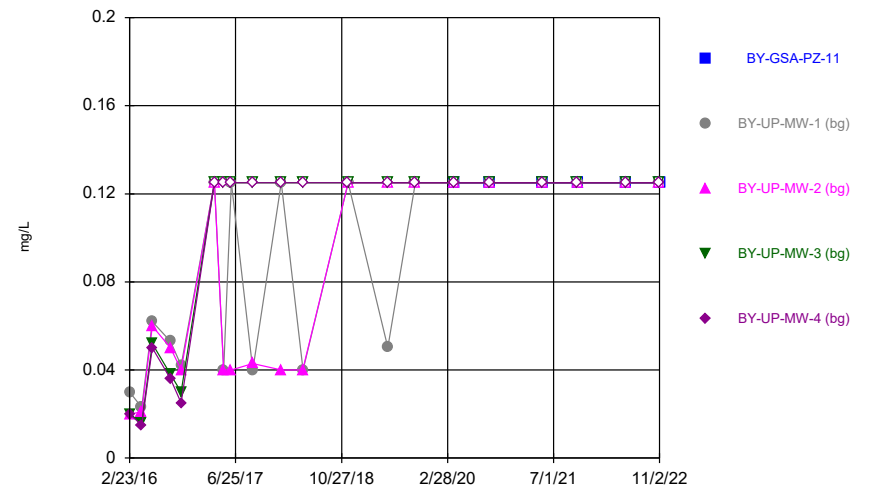
Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



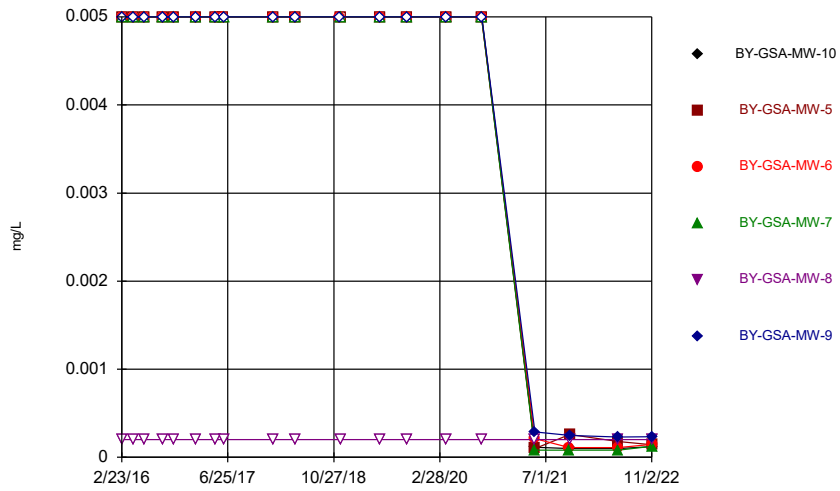
Constituent: Fluoride Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



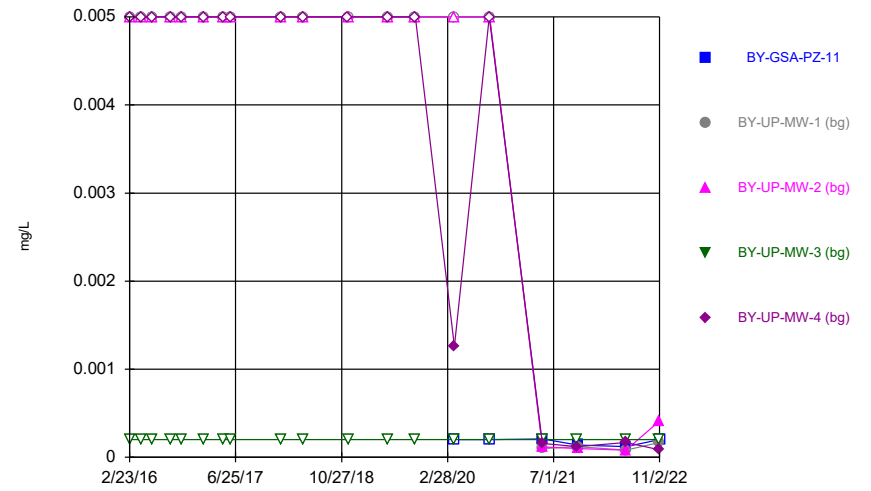
Constituent: Fluoride Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



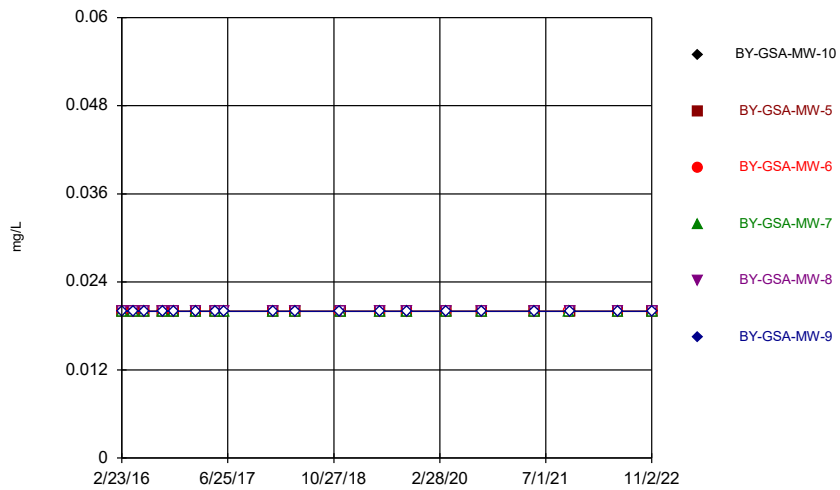
Constituent: Lead Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



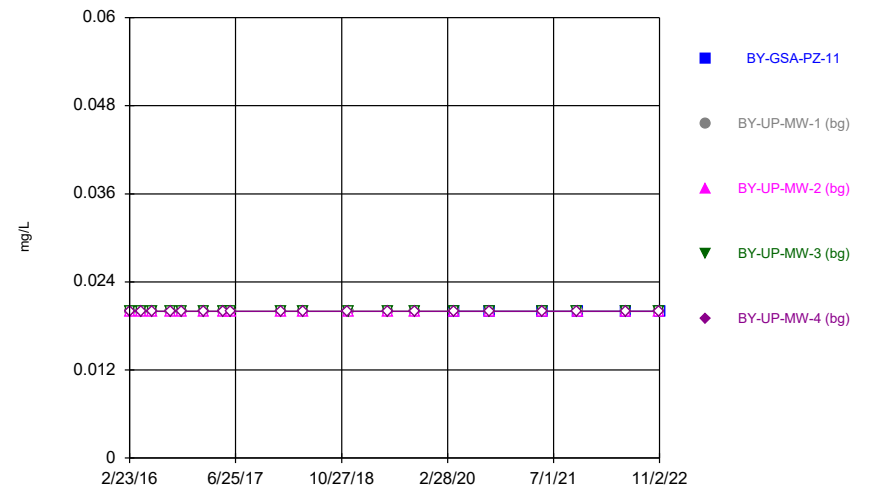
Constituent: Lead Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



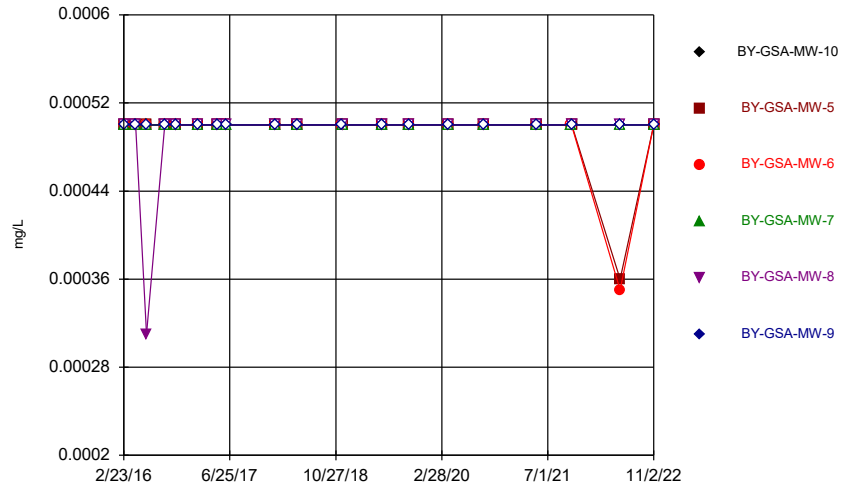
Constituent: Lithium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



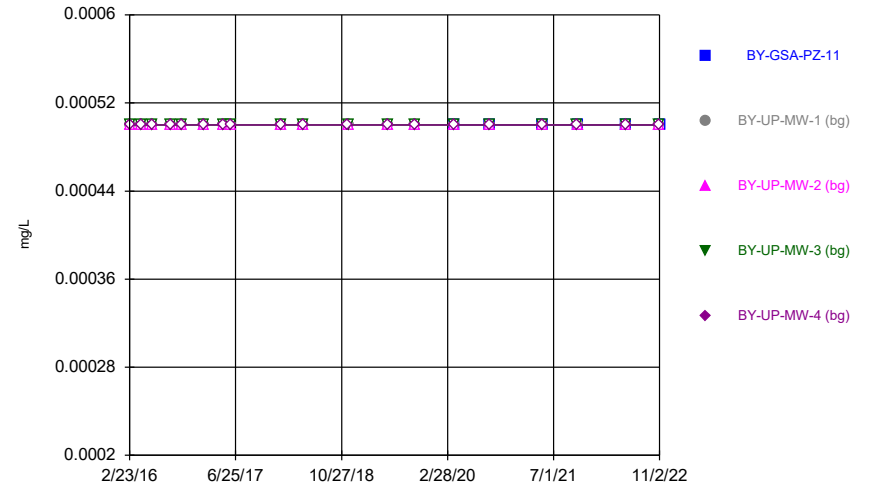
Constituent: Lithium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



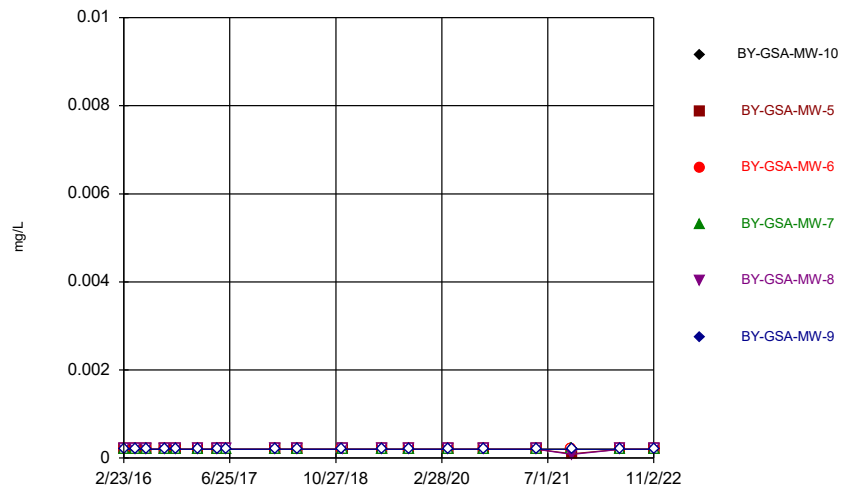
Constituent: Mercury Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



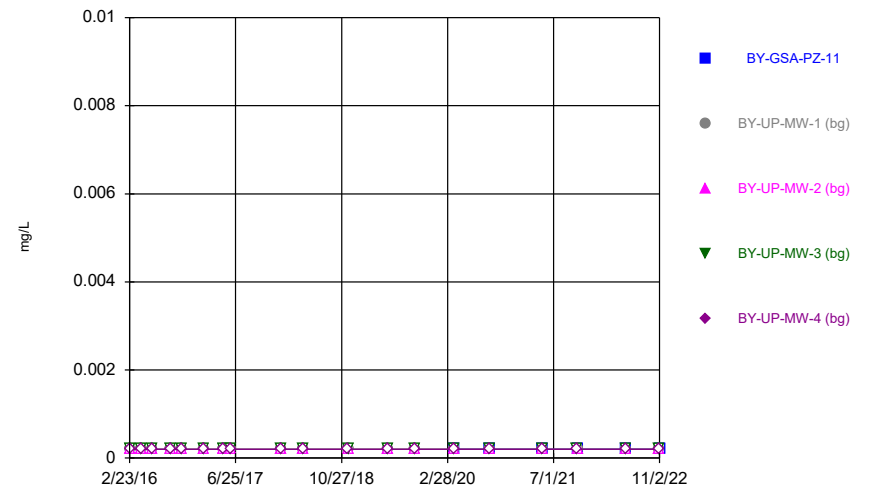
Constituent: Mercury Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



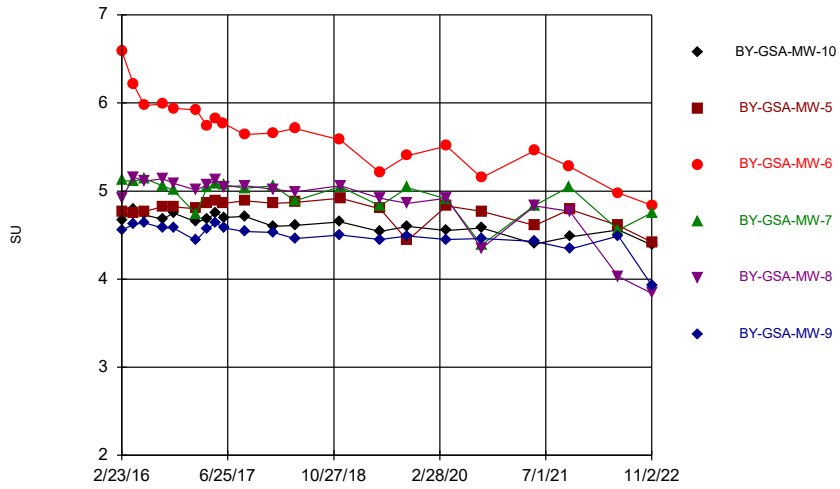
Constituent: Molybdenum Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



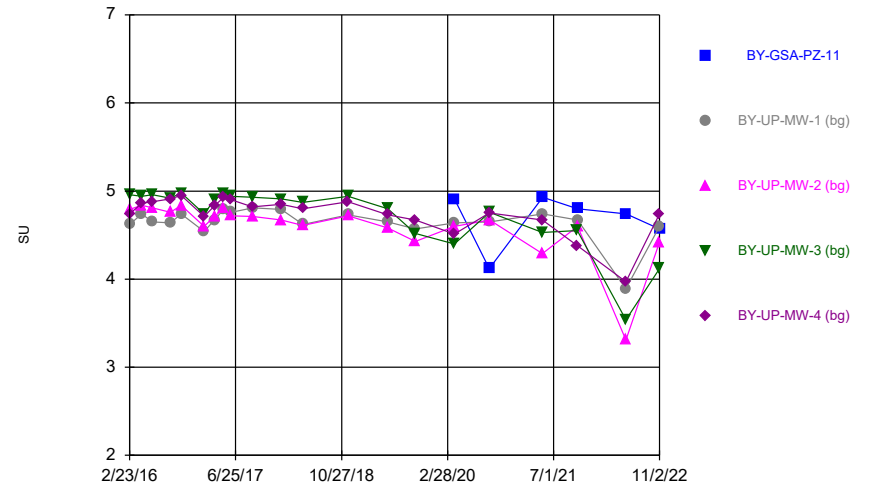
Constituent: Molybdenum Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



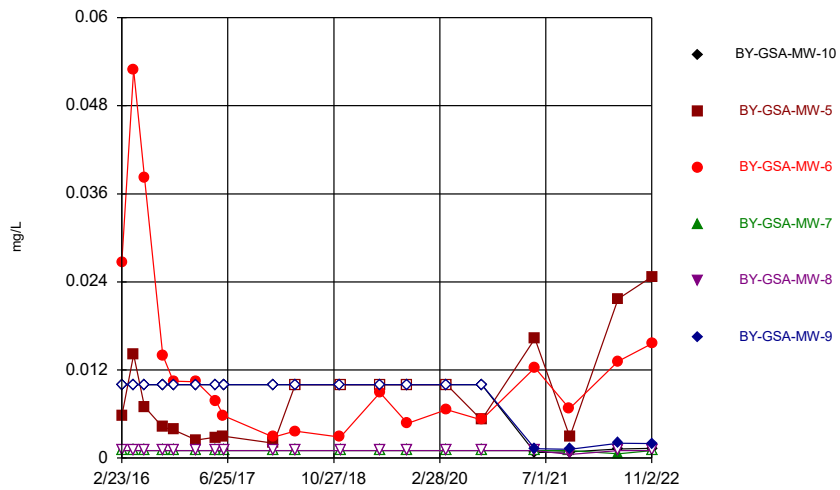
Constituent: pH, Field Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



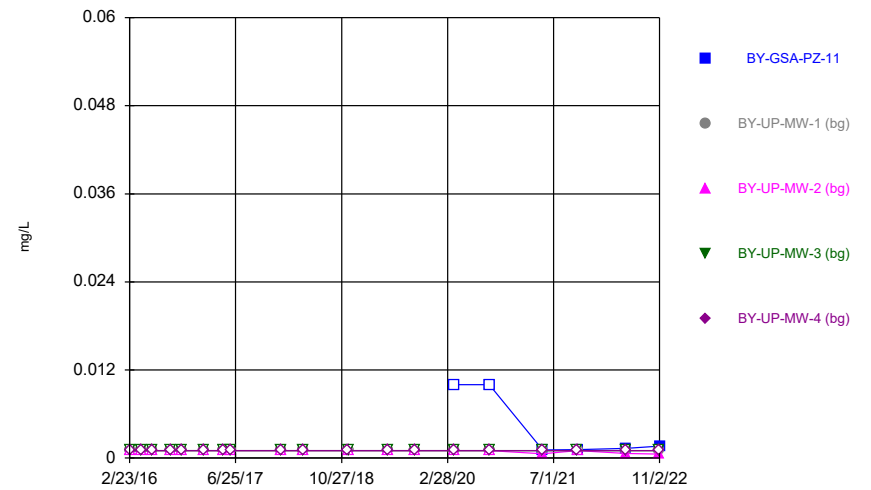
Constituent: pH, Field Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



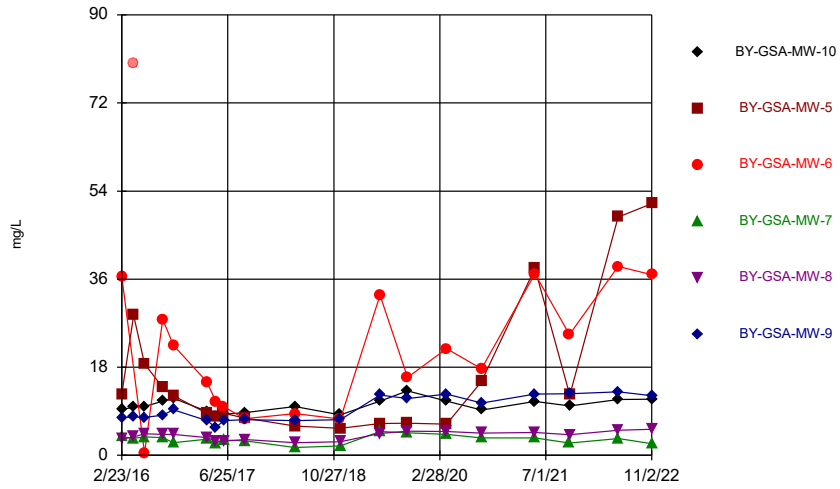
Constituent: Selenium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



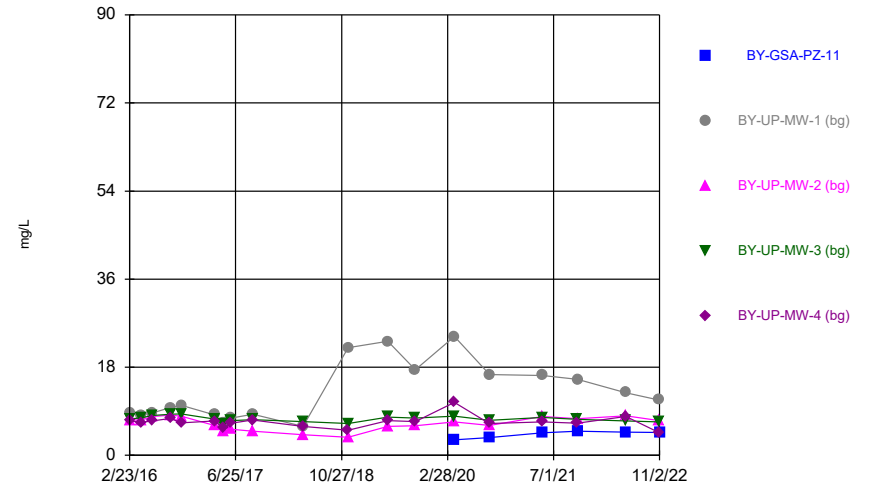
Constituent: Selenium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



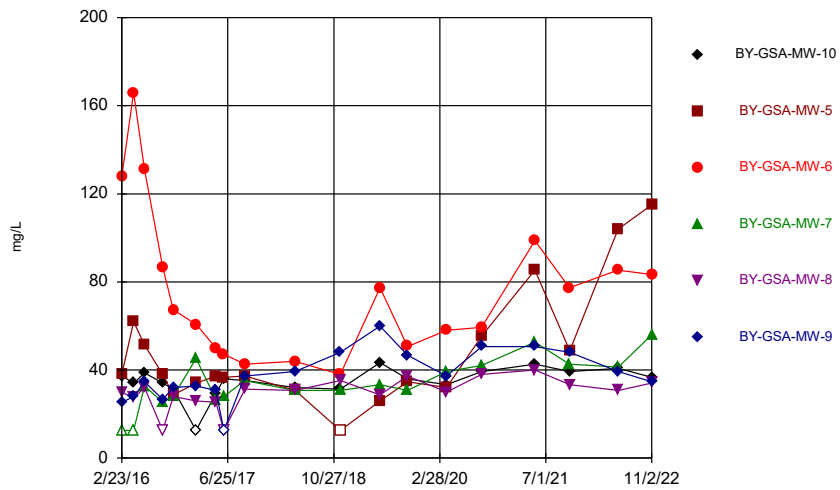
Constituent: Sulfate Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



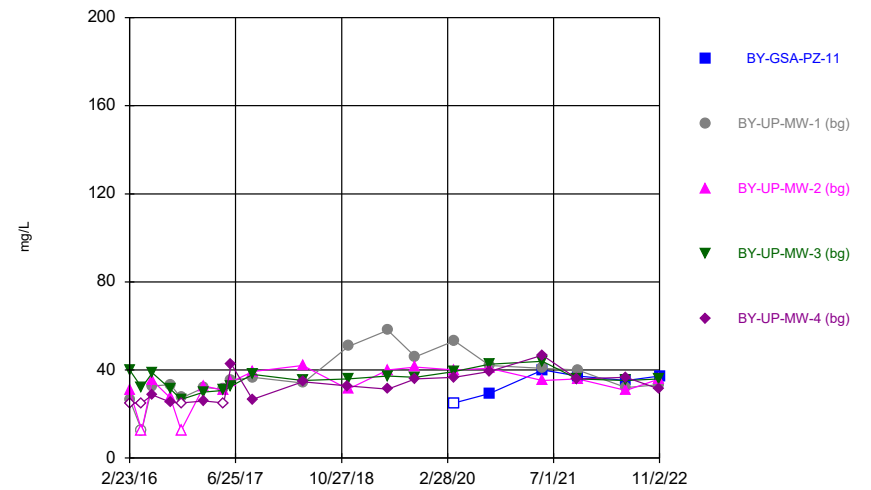
Constituent: Sulfate Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



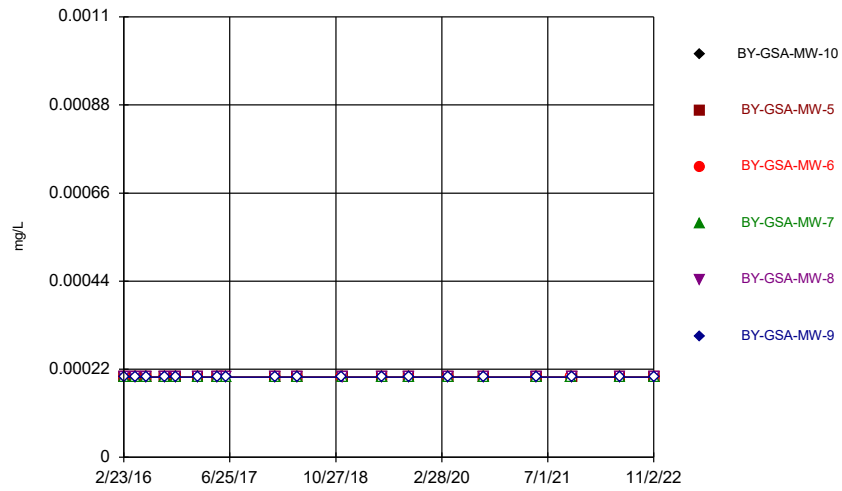
Constituent: TDS Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



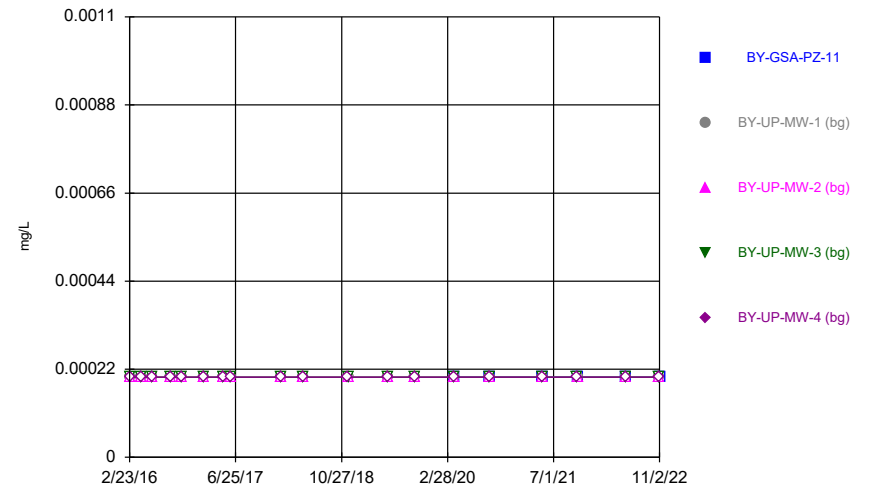
Constituent: TDS Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
4/18/2016		<0.00102	<0.00102	<0.00102	<0.00102	
4/19/2016	<0.00102					<0.00102
6/6/2016			0.000633 (J)	<0.00102		
6/7/2016	<0.00102	<0.00102			<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
1/30/2017	0.000838 (J)			0.00119 (J)		0.000859 (J)
1/31/2017		0.000866 (J)	0.000926 (J)		0.000885 (J)	
5/2/2017	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102			
6/7/2017	<0.00102			<0.00102	<0.00102	<0.00102
1/22/2018			<0.00102	<0.00102		
1/23/2018	<0.00102					<0.00102
1/24/2018		<0.00102			<0.00102	
5/1/2018	<0.00102		<0.00102	<0.00102		<0.00102
5/2/2018		<0.00102			<0.00102	
11/26/2018	<0.00102		<0.00102			<0.00102
11/27/2018		<0.00102		<0.00102	<0.00102	
5/28/2019		<0.00102	<0.00102	<0.00102	<0.00102	
5/29/2019	<0.00102					<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
3/30/2020		<0.00102	<0.00102	<0.00102	<0.00102	
3/31/2020	<0.00102					<0.00102
9/8/2020		<0.00102	<0.00102	<0.00102	<0.00102	
9/9/2020	<0.00102					<0.00102
5/12/2021	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
10/18/2021			<0.00102	<0.00102		
10/19/2021	<0.00102	<0.00102			<0.00102	<0.00102
5/31/2022		<0.00102	<0.00102			
6/1/2022	<0.00102			<0.00102	<0.00102	<0.00102
11/2/2022	<0.00102	<0.00102	<0.00102	0.000586 (J)	<0.00102	<0.00102

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.00102	<0.00102	<0.00102	0.000606 (J)
4/19/2016		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2016		<0.00102			<0.00102
6/7/2016			<0.00102	<0.00102	
8/30/2016		<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016		<0.00102	<0.00102	<0.00102	<0.00102
1/31/2017		0.000925 (J)	0.000898 (J)	0.000911 (J)	0.000928 (J)
5/2/2017		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102	<0.00102	<0.00102
1/23/2018		<0.00102	<0.00102	<0.00102	<0.00102
5/1/2018			<0.00102	<0.00102	<0.00102
5/2/2018		<0.00102			
11/26/2018					<0.00102
11/27/2018		<0.00102	<0.00102	<0.00102	
5/28/2019					<0.00102
5/29/2019		<0.00102	<0.00102	<0.00102	
10/2/2019		<0.00102	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102				<0.00102
9/9/2020		<0.00102	<0.00102	<0.00102	
5/11/2021			<0.00102	<0.00102	<0.00102
5/12/2021	<0.00102	<0.00102			
10/18/2021				<0.00102	<0.00102
10/19/2021	<0.00102	<0.00102	<0.00102		
5/31/2022		<0.00102	<0.00102	<0.00102	<0.00102
6/1/2022	<0.00102				
11/1/2022		<0.00102 (D)	<0.00102 (D)	<0.00102 (D)	<0.00102 (D)
11/2/2022	<0.00102				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/18/2016		<0.002	<0.002	<0.002	<0.002	
4/19/2016	<0.002					<0.002
6/6/2016			<0.002	<0.002		
6/7/2016	<0.002	<0.002			<0.002	<0.002
8/30/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
10/18/2016	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/30/2017	<0.002			<0.002		<0.002
1/31/2017		<0.002	<0.002		<0.002	
5/2/2017	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/6/2017		<0.002	<0.002			
6/7/2017	<0.002			<0.002	<0.002	<0.002
1/22/2018			<0.002	<0.002		
1/23/2018	<0.002					<0.002
1/24/2018		<0.002			<0.002	
5/1/2018	<0.002		<0.002	<0.002		<0.002
5/2/2018		<0.002			<0.002	
11/26/2018	<0.002		<0.002			<0.002
11/27/2018		<0.002		<0.002	<0.002	
5/28/2019		<0.002	<0.002	<0.002	<0.002	
5/29/2019	<0.002					<0.002
10/2/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/30/2020		<0.002	<0.002	<0.002	<0.002	
3/31/2020	<0.002					<0.002
9/8/2020		<0.002	<0.002	<0.002	<0.002	
9/9/2020	<0.002					<0.002
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.002	0.000173 (J)
10/18/2021			0.00032	0.00023		
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.002
5/31/2022		0.00053	0.00052			
6/1/2022	9E-05 (J)			0.00024	<0.002	0.0001 (J)
11/2/2022	0.000147 (J)	0.000548	0.000429	0.000331	8.3E-05 (J)	0.000146 (J)

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.002	<0.002	<0.002	<0.002
4/19/2016		<0.002	<0.002	<0.002	<0.002
6/6/2016		<0.002			<0.002
6/7/2016			<0.002	<0.002	
8/30/2016		<0.002	<0.002	<0.002	<0.002
10/18/2016		<0.002	<0.002	<0.002	<0.002
1/31/2017		<0.002	<0.002	<0.002	<0.002
5/2/2017		<0.002	<0.002	<0.002	<0.002
6/6/2017		<0.002	<0.002	<0.002	<0.002
1/23/2018		<0.002	<0.002	<0.002	<0.002
5/1/2018			<0.002	<0.002	<0.002
5/2/2018		<0.002			
11/26/2018					<0.002
11/27/2018		<0.002	<0.002	<0.002	
5/28/2019					<0.002
5/29/2019		<0.002	<0.002	<0.002	
10/2/2019		<0.002	<0.002	<0.002	<0.002
3/31/2020	<0.002	<0.002	<0.002	<0.002	0.0017 (J)
9/8/2020	<0.002				<0.002
9/9/2020		<0.002	<0.002	<0.002	
5/11/2021			0.000136 (J)	<0.002	0.000217
5/12/2021	0.000111 (J)	0.000336			
10/18/2021				9E-05 (J)	0.00019 (J)
10/19/2021	0.00013 (J)	0.00035	0.00012 (J)		
5/31/2022		0.00024	9E-05 (J)	<0.002	0.0002
6/1/2022	<0.002				
11/1/2022		0.000345 (D)	0.000379 (D)	<0.002 (D)	0.000115 (JD)
11/2/2022	8.5E-05 (J)				

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.134	0.109	0.237	0.0546	0.0352	0.121
4/18/2016		0.135	0.263	0.0421	0.0251	
4/19/2016	0.114					0.0926
6/6/2016			0.206	0.0457		
6/7/2016	0.118	0.0892			0.0299	0.0998
8/30/2016	0.126	0.083	0.165	0.0469	0.0287	0.106
10/18/2016	0.127	0.0859	0.148	0.0611	0.0309	0.106
1/30/2017	0.1			0.0801		0.111
1/31/2017		0.0779	0.123		0.0282	
5/2/2017	0.114	0.0799	0.098	0.0388	0.0309	0.111
6/6/2017		0.0788	0.0844			
6/7/2017	0.0991			0.0437	0.0287	0.107
1/22/2018			0.0593	0.0399		
1/23/2018	0.119					0.122
1/24/2018		0.0746			0.0351	
5/1/2018	0.132		0.081	0.04		0.139
5/2/2018		0.085			0.0398	
11/26/2018	0.112		0.0657			0.152
11/27/2018		0.072		0.0427	0.0388	
5/28/2019		0.0684	0.17	0.0524	0.0412	
5/29/2019	0.125					0.155
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16
3/30/2020		0.0718	0.142	0.0788	0.0444	
3/31/2020	0.122					0.165
9/8/2020		0.181	0.0981	0.0615	0.0494	
9/9/2020	0.125					0.17
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184
10/18/2021			0.146	0.0859		
10/19/2021	0.115	0.0998			0.0452	0.151
5/31/2022		0.226	0.202			
6/1/2022	0.136			0.0803	0.0477	0.142
11/2/2022	0.133	0.146	0.204	0.131	0.055	0.141

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.117	0.111	0.0862	0.0973
4/19/2016		0.099	0.0875	0.0718	0.0802
6/6/2016		0.107			0.0862
6/7/2016			0.0979	0.0754	
8/30/2016		0.106	0.108	0.0768	0.0841
10/18/2016		0.102	0.103	0.0727	0.0715
1/31/2017		0.0944	0.109	0.0698	0.0825
5/2/2017		0.0868	0.125	0.0723	0.0777
6/6/2017		0.0799	0.108	0.07	0.078
1/23/2018		0.0884	0.153	0.0747	0.0825
5/1/2018			0.167	0.0877	0.102
5/2/2018		0.137			
11/26/2018					0.0994
11/27/2018		0.157	0.158	0.0804	
5/28/2019					0.102
5/29/2019		0.166	0.172	0.0831	
10/2/2019		0.129	0.183	0.089	0.111
3/31/2020	0.0499	0.176	0.171	0.0927	0.129
9/8/2020	0.05				0.125
9/9/2020		0.124	0.172	0.0919	
5/11/2021			0.165	0.0981	0.125
5/12/2021	0.0597	0.123			
10/18/2021				0.0935	0.124
10/19/2021	0.0599	0.103	0.145		
5/31/2022		0.1	0.153	0.0992	0.129
6/1/2022	0.0821				
11/1/2022		0.0804 (D)	0.145 (D)	0.0963 (D)	0.11 (D)
11/2/2022	0.0903				

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
4/18/2016		<0.00102	0.000681 (J)	<0.00102	<0.00102	
4/19/2016	<0.00102					<0.00102
6/6/2016			<0.00102	<0.00102		
6/7/2016	<0.00102	<0.00102			<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
1/30/2017	<0.00102			<0.00102		<0.00102
1/31/2017		<0.00102	<0.00102		<0.00102	
5/2/2017	<0.00102	<0.00102	0.000704 (J)	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102			
6/7/2017	<0.00102			<0.00102	<0.00102	<0.00102
1/22/2018			<0.00102	<0.00102		
1/23/2018	<0.00102					<0.00102
1/24/2018		<0.00102			<0.00102	
5/1/2018	<0.00102		<0.00102	<0.00102		<0.00102
5/2/2018		<0.00102			<0.00102	
11/26/2018	<0.00102		<0.00102			<0.00102
11/27/2018		<0.00102		<0.00102	<0.00102	
5/28/2019		<0.00102	<0.00102	<0.00102	<0.00102	
5/29/2019	<0.00102					<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
3/30/2020		<0.00102	<0.00102	<0.00102	<0.00102	
3/31/2020	<0.00102					<0.00102
9/8/2020		<0.00102	<0.00102	<0.00102	<0.00102	
9/9/2020	<0.00102					<0.00102
5/12/2021	<0.00102	0.000575 (J)	0.000763 (J)	0.000464 (J)	<0.00102	<0.00102
10/18/2021			<0.00102	<0.00102		
10/19/2021	<0.00102	<0.00102			<0.00102	<0.00102
5/31/2022		0.00071 (J)	0.00066 (J)			
6/1/2022	<0.00102			<0.00102	<0.00102	<0.00102
11/2/2022	<0.00102	0.000937 (J)	0.000408 (J)	<0.00102	<0.00102	<0.00102

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.00102	<0.00102	<0.00102	<0.00102
4/19/2016		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2016		0.000612 (J)			<0.00102
6/7/2016			0.00093 (J)	<0.00102	
8/30/2016		<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016		<0.00102	<0.00102	<0.00102	<0.00102
1/31/2017		<0.00102	<0.00102	<0.00102	<0.00102
5/2/2017		0.00069 (J)	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102	<0.00102	<0.00102
1/23/2018		<0.00102	<0.00102	<0.00102	<0.00102
5/1/2018			<0.00102	<0.00102	<0.00102
5/2/2018		<0.00102			
11/26/2018					<0.00102
11/27/2018		0.000856 (J)	0.000801 (J)	<0.00102	
5/28/2019					<0.00102
5/29/2019		<0.00102	<0.00102	<0.00102	
10/2/2019		<0.00102	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102				<0.00102
9/9/2020		<0.00102	<0.00102	<0.00102	
5/11/2021			<0.00102	<0.00102	<0.00102
5/12/2021	<0.00102	0.000694 (J)			
10/18/2021				<0.00102	<0.00102
10/19/2021	<0.00102	<0.00102	<0.00102		
5/31/2022		<0.00102	0.00041 (J)	<0.00102	<0.00102
6/1/2022	<0.00102				
11/1/2022		<0.00102 (D)	0.000429 (JD)	<0.00102 (D)	<0.00102 (D)
11/2/2022	<0.00102				

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.0294 (J)	0.163	0.638	0.0314 (J)	<0.1015	0.0297 (J)
4/18/2016		0.361	0.908	<0.1015	<0.1015	
4/19/2016	0.0257 (J)					0.0269 (J)
6/6/2016			0.733	<0.1015		
6/7/2016	0.0257 (J)	0.169			<0.1015	0.0271 (J)
8/30/2016	0.0317 (J)	0.0858 (J)	0.448	<0.1015	<0.1015	0.0272 (J)
10/18/2016	<0.1	0.0778 (J)	0.249	<0.1015	0.0207 (J)	<0.1
1/30/2017	0.0243 (J)			<0.1015		0.0269 (J)
1/31/2017		0.077 (J)	0.121		<0.1015	
5/2/2017	0.0259 (J)	0.0602 (J)	0.0695 (J)	<0.1015	<0.1015	0.027 (J)
6/6/2017		0.0442 (J)	0.0509 (J)			
6/7/2017	<0.1			<0.1015	<0.1015	<0.1
9/12/2017			0.0709 (J)	<0.1015		
9/13/2017	0.0394 (J)	0.0411 (J)			<0.1015	0.032 (J)
5/1/2018	0.0338 (J)		0.0365 (J)	<0.1015		0.0302 (J)
5/2/2018		0.0334 (J)			<0.1015	
11/26/2018	0.0484 (J)		0.0836 (J)			0.139
11/27/2018		0.0265 (J)		<0.1015	<0.1015	
5/28/2019		<0.1	0.556	<0.1015	<0.1015	
5/29/2019	0.0669 (J)					0.141
10/2/2019	0.0671 (J)	<0.1	0.186	<0.1015	<0.1015	0.116
3/30/2020		<0.1	0.304	<0.1015	<0.1015	
3/31/2020	0.0442 (J)					0.112
9/8/2020		0.521	0.362	<0.1015	<0.1015	
9/9/2020	0.0509 (J)					0.0873 (J)
5/12/2021	0.0423 (J)	0.511	0.876	<0.1015	<0.1015	0.0834 (J)
10/18/2021			0.987	<0.1015		
10/19/2021	0.0444 (J)	0.243			0.0303 (J)	0.0966 (J)
5/31/2022		0.939	0.685			
6/1/2022	0.0493 (J)			<0.1015	<0.1015	0.0933 (J)
11/2/2022	0.0502 (J)	1.69	0.741	<0.1015	0.0343 (J)	0.0809 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.0212 (J)	0.0252 (J)	<0.1015	0.0257 (J)
4/19/2016		<0.1	<0.1015	<0.1015	<0.1015
6/6/2016		<0.1			<0.1015
6/7/2016			0.0202 (J)	<0.1015	
8/30/2016		<0.1	<0.1015	<0.1015	<0.1015
10/18/2016		<0.1	<0.1015	<0.1015	0.022 (J)
1/31/2017		<0.1	<0.1015	<0.1015	<0.1015
5/2/2017		<0.1	<0.1015	<0.1015	<0.1015
6/6/2017		<0.1	<0.1015	<0.1015	<0.1015
9/12/2017					<0.1015
9/13/2017		<0.1	<0.1015	<0.1015	
5/1/2018			<0.1015	<0.1015	<0.1015
5/2/2018		0.0362 (J)			
11/26/2018					<0.1015
11/27/2018		0.11	0.0207 (J)	<0.1015	
5/28/2019					<0.1015
5/29/2019		0.188	<0.1015	<0.1015	
10/2/2019		0.097 (J)	<0.1015	<0.1015	<0.1015
3/31/2020	0.0864 (J)	0.157	<0.1015	<0.1015	<0.1015
9/8/2020	0.0638 (J)				<0.1015
9/9/2020		0.0999 (J)	<0.1015	<0.1015	
5/11/2021			<0.1015	<0.1015	<0.1015
5/12/2021	0.0742 (J)	0.0841 (J)			
10/18/2021				<0.1015	<0.1015
10/19/2021	0.0551 (J)	0.0708 (J)	<0.1015		
5/31/2022		0.0567 (J)	<0.1015	<0.1015	<0.1015
6/1/2022	0.0564 (J)				
11/1/2022		0.0501 (JD)	<0.1015 (D)	<0.1015 (D)	<0.1015 (D)
11/2/2022	0.035 (J)				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2016		<0.0002	<0.0002	<0.0002	<0.0002	
4/19/2016	<0.0002					<0.0002
6/6/2016			<0.0002	<0.0002		
6/7/2016	<0.0002	<0.0002			<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/30/2017	<0.0002			<0.0002		<0.0002
1/31/2017		<0.0002	<0.0002		<0.0002	
5/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
6/6/2017		<0.0002	<0.0002			
6/7/2017	<0.0002			<0.0002	<0.0002	<0.0002
1/22/2018			<0.0002	<0.0002		
1/23/2018	<0.0002					<0.0002
1/24/2018		<0.0002			<0.0002	
5/1/2018	<0.0002		<0.0002	<0.0002		<0.0002
5/2/2018		<0.0002			<0.0002	
11/26/2018	<0.0002		<0.0002			<0.0002
11/27/2018		<0.0002		<0.0002	<0.0002	
5/28/2019		<0.0002	<0.0002	<0.0002	<0.0002	
5/29/2019	<0.0002					<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/30/2020		<0.0002	<0.0002	<0.0002	<0.0002	
3/31/2020	<0.0002					<0.0002
9/8/2020		<0.0002	<0.0002	<0.0002	<0.0002	
9/9/2020	<0.0002					<0.0002
5/12/2021	<0.0002	8.67E-05 (J)	0.000154 (J)	<0.0002	<0.0002	<0.0002
10/18/2021			0.00011 (J)	<0.0002		
10/19/2021	<0.0002	0.00014 (J)			<0.0002	<0.0002
5/31/2022		0.00012 (J)	0.00023			
6/1/2022	<0.0002			<0.0002	<0.0002	<0.0002
11/2/2022	<0.0002	0.000189 (J)	0.000178 (J)	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.0002	<0.0002	<0.0002	<0.0002
4/19/2016		<0.0002	<0.0002	<0.0002	<0.0002
6/6/2016		<0.0002			<0.0002
6/7/2016			<0.0002	<0.0002	
8/30/2016		<0.0002	<0.0002	<0.0002	<0.0002
10/18/2016		<0.0002	<0.0002	<0.0002	<0.0002
1/31/2017		<0.0002	<0.0002	<0.0002	<0.0002
5/2/2017		<0.0002	<0.0002	<0.0002	<0.0002
6/6/2017		<0.0002	<0.0002	<0.0002	<0.0002
1/23/2018		<0.0002	<0.0002	<0.0002	<0.0002
5/1/2018			<0.0002	<0.0002	<0.0002
5/2/2018		<0.0002			
11/26/2018					<0.0002
11/27/2018		<0.0002	<0.0002	<0.0002	
5/28/2019					<0.0002
5/29/2019		<0.0002	<0.0002	<0.0002	
10/2/2019		<0.0002	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002				<0.0002
9/9/2020		<0.0002	<0.0002	<0.0002	
5/11/2021			<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002			
10/18/2021				7E-05 (J)	<0.0002
10/19/2021	<0.0002	<0.0002	<0.0002		
5/31/2022		<0.0002	<0.0002	<0.0002	<0.0002
6/1/2022	<0.0002				
11/1/2022		<0.0002 (D)	<0.0002 (D)	<0.0002 (D)	<0.0002 (D)
11/2/2022	<0.0002				

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.795	2.42	18.3	1.4	0.618	1.15
4/18/2016		4.65	23.2	1.2	0.505	
4/19/2016	0.761					1.04
6/6/2016			19.7	1.48		
6/7/2016	0.799	3.1			0.587	1.22
8/30/2016	0.788	2.19	10.9	1.13	0.495 (J)	1.18
10/18/2016	0.788	1.97	8.74	1.45	0.503	1.12
1/30/2017	0.755			1.95		1.23
1/31/2017		1.73	7.89		0.554	
5/2/2017	0.763	1.74	5.81	0.908	0.548	1.2
6/6/2017		1.66	4.72			
6/7/2017	0.706			1.29	0.545	1.17
9/12/2017			4.39	1.44		
9/13/2017	0.873	1.61			0.723	1.25
5/1/2018	1.05		4.66	0.695		1.25
5/2/2018		1.44			0.751	
11/26/2018	0.922		3.41			1.61
11/27/2018		1.3		0.798	0.743	
5/28/2019		1.25	10	0.973	0.789	
5/29/2019	1.07					1.8
10/2/2019	1.32	1.33	4.94	0.929	0.882	1.85
3/30/2020		1.26	7.56	1.32	0.841	
3/31/2020	0.98					1.67
9/8/2020		3.24	6.38	1.12	0.981	
9/9/2020	1.1					1.79
5/12/2021	1.06	7	13.5	1.63	1.02	1.82
10/18/2021			9.06	1.53		
10/19/2021	0.977	2.75			1.01	1.75
5/31/2022		8.52	9.98			
6/1/2022	1.04			1.27	0.94	1.55
11/2/2022	1.15	10.9	7.78	1.96	1.04	1.67

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		1.28	1.11	1.77	1.42
4/19/2016		1.19	1.09	1.68	1.31
6/6/2016		1.19			1.35
6/7/2016			1.16	1.68	
8/30/2016		1.11	1.08	1.62	1.31
10/18/2016		1.04	1.03	1.53	1.22
1/31/2017		1.19	1.23	1.65	1.36
5/2/2017		1.05	1.28	1.58	1.24
6/6/2017		0.978	1.25	1.55	1.28
9/12/2017					1.47
9/13/2017		1.14	1.6	1.71	
5/1/2018			1.58	1.76	1.47
5/2/2018		1.64			
11/26/2018					1.52
11/27/2018		2.01	1.49	1.69	
5/28/2019					1.6
5/29/2019		1.85	1.59	1.74	
10/2/2019		1.55	1.7	1.86	1.7
3/31/2020	0.663	1.96	1.43	1.92	1.78
9/8/2020	0.724				1.94
9/9/2020		1.43	1.5	1.97	
5/11/2021			1.39	2.06	1.93
5/12/2021	0.861	1.34			
10/18/2021				2.1	2.01
10/19/2021	0.941	1.17	1.32		
5/31/2022		1.14	1.24	1.95	2.02
6/1/2022	1.13				
11/1/2022		1.01 (D)	1.23 (D)	1.94 (D)	1.59 (D)
11/2/2022	1.31				

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3.57	3.86	6.06	4.08	4.47	4.1
4/18/2016		4.46	6.13	4.14	4.74	
4/19/2016	3.12					3.11
6/6/2016			5.52	4.09		
6/7/2016	3.14	3.74			4.52	3.72
8/30/2016	2.93	3.5	5.35	4.6	4.71	4.8
10/18/2016	2.96	3.5	4.55	8.32	4.73	4.71
3/21/2017	4.4	2.8	3.5	5.6	4.9	5.3
5/2/2017	3.7	3.9	4.8	4.8	5.7	6.6
6/6/2017		3.4	3.6			
6/7/2017	3.3			6.3	4.1	5.2
9/12/2017			4.3	8.5		
9/13/2017	5.1	<2 (U*)			4.9	6.5
5/1/2018	4		3.8	4		5.7
5/2/2018		3.5			4.1	
11/26/2018	3.8		3.5			11
11/27/2018		3.7		4.3	4.9	
5/28/2019		3.69	6.26	4.63	4.43	
5/29/2019	4.34					8.56
10/2/2019	4.34	3.49	4.13	5.02	4.32	8.48
3/30/2020		3.45	4.95	10.5	4.38	
3/31/2020	3.89					6.87
9/8/2020		6.23	5.71	8.74	4.61	
9/9/2020	4.11					7.94
5/12/2021	3.94	5.89	7.77	17.2	5.25	8.77
10/18/2021			10	16.8		
10/19/2021	3.79	4.81			5.34	6.33
5/31/2022		7.83	7.22			
6/1/2022	3.35			14.7	5.38	4.29
11/2/2022	3.07	8.44	6.58	22.700001	5.08	3.14

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		3.59	3.99	3.68	3.5
4/19/2016		2.89	4.08	3.72	3.63
6/6/2016		3.12			3.6
6/7/2016			4.28	3.66	
8/30/2016		3.91	4.26	3.7	3.54
10/18/2016		3.9	4.26	3.77	3.68
3/20/2017		3.5	4.1	3.7	4.6
5/2/2017		3.5	5	4.6	3.9
6/6/2017		3.1	3.9	3.4	3.4
9/12/2017					4.3
9/13/2017		<2 (U*)	<2 (U*)	<2 (U*)	
5/1/2018			3.7	4.1	3.8
5/2/2018		9.9			
11/26/2018					3.6
11/27/2018		4.7	3.2	3.5	
5/28/2019					3.6
5/29/2019		5.48	2.93	3.58	
10/2/2019		3.65	2.75	3.64	3.5
3/31/2020	4.13	3.17	2.72	3.47	3.34
9/8/2020	3.96				3.29
9/9/2020		2.92	2.32	3.47	
5/11/2021			2.16	3.42	3.33
5/12/2021	4.89	2.18			
10/18/2021				3.45	3.32
10/19/2021	5.02	2.37	2.08		
5/31/2022		1.93	2.17	3.39	3.31
6/1/2022	7.97				
11/1/2022		2.37 (D)	2.22 (D)	3.09 (D)	3.3 (D)
11/2/2022	7.81				

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	<0.01	0.00209 (J)	<0.01	<0.01	<0.01
4/18/2016		<0.01	0.00324 (J)	<0.01	0.00201 (J)	
4/19/2016	<0.01					<0.01
6/6/2016			0.0031 (J)	<0.01		
6/7/2016	<0.01	<0.01			<0.01	<0.01
8/30/2016	<0.01	<0.01	0.00227 (J)	<0.01	0.00205 (J)	<0.01
10/18/2016	<0.01	<0.01	<0.01	<0.01	0.00218 (J)	<0.01
1/30/2017	<0.01			<0.01		<0.01
1/31/2017		<0.01	<0.01		<0.01	
5/2/2017	<0.01	<0.01	<0.01	<0.01	0.00208 (J)	<0.01
6/6/2017		<0.01	<0.01			
6/7/2017	<0.01			<0.01	0.0022 (J)	<0.01
1/22/2018			<0.01	<0.01		
1/23/2018	<0.01					<0.01
1/24/2018		<0.01			0.00258 (J)	
5/1/2018	<0.01		<0.01	<0.01		<0.01
5/2/2018		<0.01			0.00202 (J)	
11/26/2018	<0.01		<0.01			<0.01
11/27/2018		<0.01		<0.01	<0.01	
5/28/2019		<0.01	0.00223 (J)	<0.01	0.00209 (J)	
5/29/2019	<0.01					<0.01
10/2/2019	<0.01	<0.01	<0.01	<0.01	0.00223 (J)	<0.01
3/30/2020		<0.01	0.00273 (J)	<0.01	0.00275 (J)	
3/31/2020	<0.01					<0.01
9/8/2020		0.00221 (J)	0.00237 (J)	<0.01	0.00224 (J)	
9/9/2020	<0.01					<0.01
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)
10/18/2021			0.00335	0.00131		
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)
5/31/2022		0.00281	0.00412			
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104
11/2/2022	0.000663 (J)	0.00259	0.00344	0.00144	0.00209	0.000918 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.01	<0.01	<0.01	<0.01
4/19/2016		<0.01	<0.01	<0.01	<0.01
6/6/2016		<0.01			<0.01
6/7/2016			<0.01	<0.01	
8/30/2016		<0.01	<0.01	<0.01	<0.01
10/18/2016		<0.01	<0.01	<0.01	<0.01
1/31/2017		<0.01	<0.01	<0.01	<0.01
5/2/2017		<0.01	<0.01	<0.01	<0.01
6/6/2017		<0.01	<0.01	<0.01	<0.01
1/23/2018		<0.01	0.00596 (J)	0.00229 (J)	<0.01
5/1/2018			<0.01	<0.01	<0.01
5/2/2018		<0.01			
11/26/2018					<0.01
11/27/2018		<0.01	<0.01	<0.01	
5/28/2019					<0.01
5/29/2019		<0.01	<0.01	<0.01	
10/2/2019		<0.01	<0.01	<0.01	<0.01
3/31/2020	0.00249 (J)	<0.01	<0.01	<0.01	0.00604 (J)
9/8/2020	0.00253 (J)				<0.01
9/9/2020		<0.01	<0.01	<0.01	
5/11/2021			0.00136	0.00146	0.00159
5/12/2021	0.00281	0.000296 (J)			
10/18/2021				0.0013	0.00146
10/19/2021	0.00336	0.0003 (J)	0.00135		
5/31/2022		0.00033 (J)	0.0012	0.00139	0.00156
6/1/2022	0.00292				
11/1/2022		0.000212 (JD)	0.00209 (D)	0.0012 (D)	0.00111 (D)
11/2/2022	0.00276				

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.00247 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016		0.00278 (J)	0.00338 (J)	<0.005	<0.005	
4/19/2016	0.00241 (J)					<0.005
6/6/2016			0.00361 (J)	<0.005		
6/7/2016	0.00247 (J)	<0.005			<0.005	<0.005
8/30/2016	0.00251 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	0.00272 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017	<0.005			<0.005		<0.005
1/31/2017		<0.005	<0.005		<0.005	
5/2/2017	0.00205 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017		<0.005	<0.005			
6/7/2017	0.00201 (J)			<0.005	<0.005	<0.005
1/22/2018			<0.005	<0.005		
1/23/2018	0.00229 (J)					<0.005
1/24/2018		<0.005			<0.005	
5/1/2018	0.00216 (J)		<0.005	<0.005		<0.005
5/2/2018		<0.005			<0.005	
11/26/2018	0.00205 (J)		<0.005			<0.005
11/27/2018		<0.005		<0.005	<0.005	
5/28/2019		<0.005	0.00301 (J)	<0.005	<0.005	
5/29/2019	0.00261 (J)					<0.005
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005	
3/31/2020	0.00238 (J)					<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005	
9/9/2020	0.00241 (J)					<0.005
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177
10/18/2021			0.00552	0.00164		
10/19/2021	0.00238	0.00217			0.00049	0.00156
5/31/2022		0.00606	0.00724			
6/1/2022	0.0027			0.00162	0.00048	0.00131
11/2/2022	0.00249	0.00667	0.00684	0.00228	0.000514	0.00118

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.0035 (J)	<0.005	<0.005	<0.005
4/19/2016		0.0038 (J)	<0.005	<0.005	<0.005
6/6/2016		0.00427 (J)			<0.005
6/7/2016			<0.005	<0.005	
8/30/2016		0.00348 (J)	<0.005	<0.005	<0.005
10/18/2016		0.00338 (J)	<0.005	<0.005	<0.005
1/31/2017		0.00308 (J)	<0.005	<0.005	<0.005
5/2/2017		0.00314 (J)	<0.005	<0.005	<0.005
6/6/2017		0.0036 (J)	<0.005	<0.005	<0.005
1/23/2018		0.00586 (J)	0.0021 (J)	<0.005	<0.005
5/1/2018			<0.005	<0.005	<0.005
5/2/2018		0.00702 (J)			
11/26/2018					<0.005
11/27/2018		0.0157	0.00209 (J)	<0.005	
5/28/2019					<0.005
5/29/2019		0.0109	0.00248 (J)	<0.005	
10/2/2019		0.0129	0.00244 (J)	<0.005	<0.005
3/31/2020	<0.005	0.0123	0.00224 (J)	<0.005	<0.005
9/8/2020	<0.005				<0.005
9/9/2020		0.00697	0.00219 (J)	<0.005	
5/11/2021			0.00194	0.00142	0.00137
5/12/2021	0.00101	0.00611			
10/18/2021				0.00146	0.00139
10/19/2021	0.00117	0.00517	0.00192		
5/31/2022		0.00487	0.00194	0.00149	0.0015
6/1/2022	0.00143				
11/1/2022		0.00394 (D)	0.0016 (D)	0.00143 (D)	0.00169 (D)
11/2/2022	0.00144				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2023 1:58 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3 (U)	3 (U)	1.2261 (U)	3 (U)	3 (U)	3 (U)
4/18/2016		3 (U)	1.92351 (U)	3 (U)	3 (U)	
4/19/2016	3 (U)					3.81872
6/6/2016			1.47	0.427		
6/7/2016	1.03	1.03			0.69	0.941
8/30/2016	1.05	0.696	1.91	0.869	0.687	0.98
10/18/2016	1.36	0.966	0.966	0.927	0.62	1.06
1/30/2017	0.847			0.649		1.15
1/31/2017		0.724	1.01		0.266 (U)	
5/2/2017	0.649	0.587	1.41	0.804	0.853	1.31
6/6/2017		0.591	0.476			
6/7/2017	1.4			0.136 (U)	0.477	1.12
1/22/2018			0.814 (U)	0.726 (U)		
1/23/2018	1.36 (U)					1.16 (U)
1/24/2018		0.566 (U)			0.411 (U)	
5/1/2018	1.03		0.931	0.63		0.961
5/2/2018		0.401			0.718	
11/26/2018	1.04		0.815			1.72
11/27/2018		0.611		0.109 (U)	0.691	
5/28/2019		0.391 (U)	2.08	-0.428 (U)	0.311 (U)	
5/29/2019	0.548 (U)					2.2
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2
3/30/2020		0.525	1.54	0.939	0.397 (U)	
3/31/2020	1.01					1.88
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)	
9/9/2020	1.32					2.11
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94
10/18/2021			2.03	0.69 (U)		
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15
5/31/2022		2.31	2.22			
6/1/2022	2.27			0.99	1.37	2.05
11/2/2022	1.34	1.24	1.7	1.09	1.06	1.93

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2023 1:58 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		2.8971 (U)	3 (U)	3 (U)	2.1138
4/19/2016		3 (U)	3 (U)	3 (U)	3 (U)
6/6/2016		0.841			0.757
6/7/2016			0.652	0.342 (U)	
8/30/2016		1.74	0.411 (U)	0.702	0.992
10/18/2016		1.47	1	0.791	0.905
1/31/2017		0.952	0.398 (U)	0.0613 (U)	1.08
5/2/2017		0.768	0.66	0.974	1.18
6/6/2017		1.04	0.639	0.748	1.1
1/23/2018		0.513 (U)	0.669 (U)	0.558 (U)	1.32 (U)
5/1/2018			1.06	0.296 (U)	1.19
5/2/2018		0.916			
11/26/2018					0.863
11/27/2018		1.37	0.636	0.357 (U)	
5/28/2019					0.474 (U)
5/29/2019		1.57	0.579 (U)	0.275 (U)	
10/2/2019		0.905	1.33	0.458 (U)	0.624 (U)
3/31/2020	0.968	1.77	0.814	0.941	1.09
9/8/2020	0.468 (U)				1.27
9/9/2020		1.77	0.653 (U)	1.05	
5/11/2021			0.945 (U)	0.521 (U)	0.969 (U)
5/12/2021	0.515 (U)	0.639 (U)			
10/18/2021				1.75	2.19
10/19/2021	0.87 (U)	1.77	1.85		
5/31/2022		1.34	1.38	1.67	1.47
6/1/2022	1.13				
11/1/2022		1.11 (D)	1 (D)	0.53 (UD)	1.36 (D)
11/2/2022	0.625 (U)				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.05 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)	0.05 (J)
4/18/2016		0.04 (J)	0.138 (J)	0.018 (J)	0.019 (J)	
4/19/2016	0.05 (J)					0.039 (J)
6/6/2016			0.148 (J)	0.051 (J)		
6/7/2016	0.098 (J)	0.066 (J)			0.053 (J)	0.085 (J)
8/30/2016	0.089 (J)	0.046 (J)	0.072 (J)	0.039 (J)	0.038 (J)	0.078 (J)
10/18/2016	0.092 (J)	0.034 (J)	0.049 (J)	0.025 (J)	0.028 (J)	0.071 (J)
3/21/2017	0.06 (J)	<0.125	<0.125	<0.125	<0.125	0.05 (J)
5/2/2017	0.07 (J)	<0.125	<0.125	<0.125	<0.125	0.06 (J)
6/6/2017		<0.125	<0.125			
6/7/2017	0.07 (J)			<0.125	<0.125	0.07 (J)
9/12/2017			<0.125	<0.125		
9/13/2017	0.08 (J)	<0.125			<0.125	0.08 (J)
1/22/2018			<0.125	<0.125		
1/23/2018	0.08 (J)					0.07 (J)
1/24/2018		<0.125			<0.125	
5/1/2018	0.09 (J)		<0.125	<0.125		0.07 (J)
5/2/2018		<0.125			<0.125	
11/26/2018	0.08 (J)		<0.125			0.07 (J)
11/27/2018		<0.125		<0.125	<0.125	
5/28/2019		<0.125	0.0591 (J)	<0.125	<0.125	
5/29/2019	<0.125					<0.125
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125	<0.125	<0.125	<0.125	
3/31/2020	<0.125					<0.125
9/8/2020		<0.125	<0.125	<0.125	<0.125	
9/9/2020	<0.125					<0.125
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
10/18/2021			<0.125	<0.125		
10/19/2021	<0.125	<0.125			<0.125	<0.125
5/31/2022		<0.125	<0.125			
6/1/2022	<0.125			<0.125	<0.125	<0.125
11/2/2022	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)
4/19/2016		0.023 (J)	0.021 (J)	0.016 (J)	0.015 (J)
6/6/2016		0.062 (J)			0.05 (J)
6/7/2016			0.06 (J)	0.052 (J)	
8/30/2016		0.053 (J)	0.05 (J)	0.038 (J)	0.036 (J)
10/18/2016		0.042 (J)	0.04 (J)	0.03 (J)	0.025 (J)
3/20/2017		<0.125	<0.125	<0.125	<0.125
5/2/2017		0.04 (J)	0.04 (J)	<0.125	<0.125
6/6/2017		<0.125	0.04 (J)	<0.125	<0.125
9/12/2017					<0.125
9/13/2017		0.04 (J)	0.043 (J)	<0.125	
1/23/2018		<0.125	0.04 (J)	<0.125	<0.125
5/1/2018			0.04 (J)	<0.125	<0.125
5/2/2018		0.04 (J)			
11/26/2018					<0.125
11/27/2018		<0.125	<0.125	<0.125	
5/28/2019					<0.125
5/29/2019		0.0502 (J)	<0.125	<0.125	
10/2/2019		<0.125	<0.125	<0.125	<0.125
3/31/2020	<0.125	<0.125	<0.125	<0.125	<0.125
9/8/2020	<0.125				<0.125
9/9/2020		<0.125	<0.125	<0.125	
5/11/2021			<0.125	<0.125	<0.125
5/12/2021	<0.125	<0.125			
10/18/2021				<0.125	<0.125
10/19/2021	<0.125	<0.125	<0.125		
5/31/2022		<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125				
11/1/2022		<0.125 (D)	<0.125 (D)	<0.125 (D)	<0.125 (D)
11/2/2022	<0.125				

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.005
4/18/2016		<0.005	<0.005	<0.005	<0.0002	
4/19/2016	<0.005					<0.005
6/6/2016			<0.005	<0.005		
6/7/2016	<0.005	<0.005			<0.0002	<0.005
8/30/2016	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.005
10/18/2016	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.005
1/30/2017	<0.005			<0.005		<0.005
1/31/2017		<0.005	<0.005		<0.0002	
5/2/2017	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.005
6/6/2017		<0.005	<0.005			
6/7/2017	<0.005			<0.005	<0.0002	<0.005
1/22/2018			<0.005	<0.005		
1/23/2018	<0.005					<0.005
1/24/2018		<0.005			<0.0002	
5/1/2018	<0.005		<0.005	<0.005		<0.005
5/2/2018		<0.005			<0.0002	
11/26/2018	<0.005		<0.005			<0.005
11/27/2018		<0.005		<0.005	<0.0002	
5/28/2019		<0.005	<0.005	<0.005	<0.0002	
5/29/2019	<0.005					<0.005
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.005
3/30/2020		<0.005	<0.005	<0.005	<0.0002	
3/31/2020	<0.005					<0.005
9/8/2020		<0.005	<0.005	<0.005	<0.0002	
9/9/2020	<0.005					<0.005
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	<0.0002	0.000288
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			<0.0002	0.00025
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	<0.0002	0.00023
11/2/2022	0.000122 (J)	0.000144 (J)	0.000146 (J)	0.000125 (J)	<0.0002	0.000233

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2023 1:58 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.005	<0.005	<0.0002	<0.005
4/19/2016		<0.005	<0.005	<0.0002	<0.005
6/6/2016		<0.005			<0.005
6/7/2016			<0.005	<0.0002	
8/30/2016		<0.005	<0.005	<0.0002	<0.005
10/18/2016		<0.005	<0.005	<0.0002	<0.005
1/31/2017		<0.005	<0.005	<0.0002	<0.005
5/2/2017		<0.005	<0.005	<0.0002	<0.005
6/6/2017		<0.005	<0.005	<0.0002	<0.005
1/23/2018		<0.005	<0.005	<0.0002	<0.005
5/1/2018			<0.005	<0.0002	<0.005
5/2/2018		<0.005			
11/26/2018					<0.005
11/27/2018		<0.005	<0.005	<0.0002	
5/28/2019					<0.005
5/29/2019		<0.005	<0.005	<0.0002	
10/2/2019		<0.005	<0.005	<0.0002	<0.005
3/31/2020	<0.0002	<0.005	<0.005	<0.0002	0.00126 (J)
9/8/2020	<0.0002				<0.005
9/9/2020		<0.005	<0.005	<0.0002	
5/11/2021			0.000118 (J)	<0.0002	0.000159 (J)
5/12/2021	0.000208	9.79E-05 (J)			
10/18/2021				<0.0002	0.00012 (J)
10/19/2021	0.00014 (J)	0.00012 (J)	0.0001 (J)		
5/31/2022		8E-05 (J)	8E-05 (J)	<0.0002	0.00017 (J)
6/1/2022	0.00012 (J)				
11/1/2022		0.00017 (JD)	0.000411 (D)	<0.0002 (D)	8.6E-05 (JD)
11/2/2022	<0.0002				

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/18/2016		<0.02	<0.02	<0.02	<0.02	
4/19/2016	<0.02					<0.02
6/6/2016			<0.02	<0.02		
6/7/2016	<0.02	<0.02			<0.02	<0.02
8/30/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1/30/2017	<0.02			<0.02		<0.02
1/31/2017		<0.02	<0.02		<0.02	
5/2/2017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
6/6/2017		<0.02	<0.02			
6/7/2017	<0.02			<0.02	<0.02	<0.02
1/22/2018			<0.02	<0.02		
1/23/2018	<0.02					<0.02
1/24/2018		<0.02			<0.02	
5/1/2018	<0.02		<0.02	<0.02		<0.02
5/2/2018		<0.02			<0.02	
11/26/2018	<0.02		<0.02			<0.02
11/27/2018		<0.02		<0.02	<0.02	
5/28/2019		<0.02	<0.02	<0.02	<0.02	
5/29/2019	<0.02					<0.02
10/2/2019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
3/30/2020		<0.02	<0.02	<0.02	<0.02	
3/31/2020	<0.02					<0.02
9/8/2020		<0.02	<0.02	<0.02	<0.02	
9/9/2020	<0.02					<0.02
5/12/2021	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2021			<0.02	<0.02		
10/19/2021	<0.02	<0.02			<0.02	<0.02
5/31/2022		<0.02	<0.02			
6/1/2022	<0.02			<0.02	<0.02	<0.02
11/2/2022	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.02	<0.02	<0.02	<0.02
4/19/2016		<0.02	<0.02	<0.02	<0.02
6/6/2016		<0.02			<0.02
6/7/2016			<0.02	<0.02	
8/30/2016		<0.02	<0.02	<0.02	<0.02
10/18/2016		<0.02	<0.02	<0.02	<0.02
1/31/2017		<0.02	<0.02	<0.02	<0.02
5/2/2017		<0.02	<0.02	<0.02	<0.02
6/6/2017		<0.02	<0.02	<0.02	<0.02
1/23/2018		<0.02	<0.02	<0.02	<0.02
5/1/2018			<0.02	<0.02	<0.02
5/2/2018		<0.02			
11/26/2018					<0.02
11/27/2018		<0.02	<0.02	<0.02	
5/28/2019					<0.02
5/29/2019		<0.02	<0.02	<0.02	
10/2/2019		<0.02	<0.02	<0.02	<0.02
3/31/2020	<0.02	<0.02	<0.02	<0.02	<0.02
9/8/2020	<0.02				<0.02
9/9/2020		<0.02	<0.02	<0.02	
5/11/2021			<0.02	<0.02	<0.02
5/12/2021	<0.02	<0.02			
10/18/2021				<0.02	<0.02
10/19/2021	<0.02	<0.02	<0.02		
5/31/2022		<0.02	<0.02	<0.02	<0.02
6/1/2022	<0.02				
11/1/2022		<0.02 (D)	<0.02 (D)	<0.02 (D)	<0.02 (D)
11/2/2022	<0.02				

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/18/2016		<0.0005	<0.0005	<0.0005	<0.0005	
4/19/2016	<0.0005					<0.0005
6/6/2016			<0.0005	<0.0005		
6/7/2016	<0.0005	<0.0005			0.00031 (J)	<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/30/2017	<0.0005			<0.0005		<0.0005
1/31/2017		<0.0005	<0.0005		<0.0005	
5/2/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017		<0.0005	<0.0005			
6/7/2017	<0.0005			<0.0005	<0.0005	<0.0005
1/22/2018			<0.0005	<0.0005		
1/23/2018	<0.0005					<0.0005
1/24/2018		<0.0005			<0.0005	
5/1/2018	<0.0005		<0.0005	<0.0005		<0.0005
5/2/2018		<0.0005			<0.0005	
11/26/2018	<0.0005		<0.0005			<0.0005
11/27/2018		<0.0005		<0.0005	<0.0005	
5/28/2019		<0.0005	<0.0005	<0.0005	<0.0005	
5/29/2019	<0.0005					<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/30/2020		<0.0005	<0.0005	<0.0005	<0.0005	
3/31/2020	<0.0005					<0.0005
9/8/2020		<0.0005	<0.0005	<0.0005	<0.0005	
9/9/2020	<0.0005					<0.0005
5/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2021			<0.0005	<0.0005		
10/19/2021	<0.0005	<0.0005			<0.0005	<0.0005
5/31/2022		0.00036 (J)	0.00035 (J)			
6/1/2022	<0.0005			<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.0005	<0.0005	<0.0005	<0.0005
4/19/2016		<0.0005	<0.0005	<0.0005	<0.0005
6/6/2016		<0.0005			<0.0005
6/7/2016			<0.0005	<0.0005	
8/30/2016		<0.0005	<0.0005	<0.0005	<0.0005
10/18/2016		<0.0005	<0.0005	<0.0005	<0.0005
1/31/2017		<0.0005	<0.0005	<0.0005	<0.0005
5/2/2017		<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017		<0.0005	<0.0005	<0.0005	<0.0005
1/23/2018		<0.0005	<0.0005	<0.0005	<0.0005
5/1/2018			<0.0005	<0.0005	<0.0005
5/2/2018		<0.0005			
11/26/2018					<0.0005
11/27/2018		<0.0005	<0.0005	<0.0005	
5/28/2019					<0.0005
5/29/2019		<0.0005	<0.0005	<0.0005	
10/2/2019		<0.0005	<0.0005	<0.0005	<0.0005
3/31/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
9/8/2020	<0.0005				<0.0005
9/9/2020		<0.0005	<0.0005	<0.0005	
5/11/2021			<0.0005	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005			
10/18/2021				<0.0005	<0.0005
10/19/2021	<0.0005	<0.0005	<0.0005		
5/31/2022		<0.0005	<0.0005	<0.0005	<0.0005
6/1/2022	<0.0005				
11/1/2022		<0.0005 (D)	<0.0005 (D)	<0.0005 (D)	<0.0005 (D)
11/2/2022	<0.0005				

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2016		<0.0002	<0.0002	<0.0002	<0.0002	
4/19/2016	<0.0002					<0.0002
6/6/2016			<0.0002	<0.0002		
6/7/2016	<0.0002	<0.0002			<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/30/2017	<0.0002			<0.0002		<0.0002
1/31/2017		<0.0002	<0.0002		<0.0002	
5/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
6/6/2017		<0.0002	<0.0002			
6/7/2017	<0.0002			<0.0002	<0.0002	<0.0002
1/22/2018			<0.0002	<0.0002		
1/23/2018	<0.0002					<0.0002
1/24/2018		<0.0002			<0.0002	
5/1/2018	<0.0002		<0.0002	<0.0002		<0.0002
5/2/2018		<0.0002			<0.0002	
11/26/2018	<0.0002		<0.0002			<0.0002
11/27/2018		<0.0002		<0.0002	<0.0002	
5/28/2019		<0.0002	<0.0002	<0.0002	<0.0002	
5/29/2019	<0.0002					<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/30/2020		<0.0002	<0.0002	<0.0002	<0.0002	
3/31/2020	<0.0002					<0.0002
9/8/2020		<0.0002	<0.0002	<0.0002	<0.0002	
9/9/2020	<0.0002					<0.0002
5/12/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2021			<0.0002	<0.0002		
10/19/2021	<0.0002	0.0001 (J)			8E-05 (J)	<0.0002
5/31/2022		<0.0002	<0.0002			
6/1/2022	<0.0002			<0.0002	<0.0002	<0.0002
11/2/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.0002	<0.0002	<0.0002	<0.0002
4/19/2016		<0.0002	<0.0002	<0.0002	<0.0002
6/6/2016		<0.0002			<0.0002
6/7/2016			<0.0002	<0.0002	
8/30/2016		<0.0002	<0.0002	<0.0002	<0.0002
10/18/2016		<0.0002	<0.0002	<0.0002	<0.0002
1/31/2017		<0.0002	<0.0002	<0.0002	<0.0002
5/2/2017		<0.0002	<0.0002	<0.0002	<0.0002
6/6/2017		<0.0002	<0.0002	<0.0002	<0.0002
1/23/2018		<0.0002	<0.0002	<0.0002	<0.0002
5/1/2018			<0.0002	<0.0002	<0.0002
5/2/2018		<0.0002			
11/26/2018					<0.0002
11/27/2018		<0.0002	<0.0002	<0.0002	
5/28/2019					<0.0002
5/29/2019		<0.0002	<0.0002	<0.0002	
10/2/2019		<0.0002	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002				<0.0002
9/9/2020		<0.0002	<0.0002	<0.0002	
5/11/2021			<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002			
10/18/2021				<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002	<0.0002		
5/31/2022		<0.0002	<0.0002	<0.0002	<0.0002
6/1/2022	<0.0002				
11/1/2022		<0.0002 (D)	<0.0002 (D)	<0.0002 (D)	<0.0002 (D)
11/2/2022	<0.0002				

Time Series

Constituent: pH, Field (SU) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	4.67	4.76	6.59	5.12	4.92	4.56
4/18/2016		4.75	6.21	5.11	5.16	
4/19/2016	4.79					4.62
6/6/2016			5.97	5.14		
6/7/2016	4.73	4.77			5.11	4.64
8/30/2016	4.68	4.82	5.99	5.06	5.14	4.58
10/18/2016	4.75	4.82	5.94	5.01	5.09	4.58
1/30/2017	4.65			4.74		4.44
1/31/2017		4.8	5.92		5.01	
3/21/2017	4.68	4.86	5.74	5.04	5.07	4.57
5/2/2017	4.75	4.89	5.82	5.08	5.13	4.64
6/6/2017		4.86	5.77			
6/7/2017	4.7			5.07	5.05	4.58
9/12/2017			5.64	5.03		
9/13/2017	4.71	4.89			5.06	4.54
1/22/2018			5.66	5.06		
1/23/2018	4.6					4.53
1/24/2018		4.86			5.02	
5/1/2018	4.61		5.71	4.89		4.46
5/2/2018		4.87			4.99	
11/26/2018	4.65		5.58			4.5
11/27/2018		4.92		5.05	5.06	
5/28/2019		4.8	5.21	4.83	4.92	
5/29/2019	4.54					4.45
10/2/2019	4.6	4.44	5.4	5.04	4.86	4.49
3/30/2020		4.83	5.51	4.91	4.92	
3/31/2020	4.55					4.45
9/8/2020		4.77	5.15	4.39	4.35	
9/9/2020	4.58					4.46
5/12/2021	4.4	4.61	5.46	4.84	4.83	4.43
10/18/2021			5.28	5.05		
10/19/2021	4.48	4.79			4.77	4.34
5/31/2022		4.61	4.98			
6/1/2022	4.56			4.56	4.03	4.49
11/2/2022	4.39	4.42	4.84	4.75	3.84	3.93

Time Series

Constituent: pH, Field (SU) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		4.62	4.79	4.96	4.74
4/19/2016		4.74	4.84	4.94	4.86
6/6/2016		4.65			4.88
6/7/2016			4.81	4.96	
8/30/2016		4.64	4.76	4.92	4.91
10/18/2016		4.74	4.84	4.98	4.95
1/31/2017		4.54	4.6	4.74	4.71
3/20/2017		4.67	4.71	4.9	4.83
5/2/2017		4.79	4.8	4.98	4.93
6/6/2017		4.76	4.72	4.94	4.9
9/12/2017					4.82
9/13/2017		4.81	4.71	4.93	
1/23/2018		4.79	4.67	4.91	4.85
5/1/2018			4.61	4.87	4.8
5/2/2018		4.62			
11/26/2018					4.88
11/27/2018		4.73	4.72	4.94	
5/28/2019					4.73
5/29/2019		4.65	4.58	4.8	
10/2/2019		4.57	4.43	4.52	4.67
3/31/2020	4.91	4.64	4.6	4.4	4.51
9/8/2020	4.12				4.75
9/9/2020		4.65	4.67	4.76	
5/11/2021			4.29	4.53	4.67
5/12/2021	4.93	4.74			
10/18/2021				4.55	4.38
10/19/2021	4.8	4.67	4.6		
5/31/2022		3.89	3.31	3.54	3.97
6/1/2022	4.74				
11/1/2022		4.6 (D)	4.42 (D)	4.12 (D)	4.74 (D)
11/2/2022	4.57				

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	0.00572 (J)	0.0266	<0.00102	<0.00102	<0.01
4/18/2016		0.0141	0.0529	<0.00102	<0.00102	
4/19/2016	<0.01					<0.01
6/6/2016			0.0382	<0.00102		
6/7/2016	<0.01	0.00698 (J)			<0.00102	<0.01
8/30/2016	<0.01	0.0042 (J)	0.014	<0.00102	<0.00102	<0.01
10/18/2016	<0.01	0.00386 (J)	0.0105	<0.00102	<0.00102	<0.01
1/30/2017	<0.01			<0.00102		<0.01
1/31/2017		0.00247 (J)	0.0104		<0.00102	
5/2/2017	<0.01	0.00284 (J)	0.00778 (J)	<0.00102	<0.00102	<0.01
6/6/2017		0.003 (J)	0.00576 (J)			
6/7/2017	<0.01			<0.00102	<0.00102	<0.01
1/22/2018			0.00287 (J)	<0.00102		
1/23/2018	<0.01					<0.01
1/24/2018		0.00201 (J)			<0.00102	
5/1/2018	<0.01		0.00367 (J)	<0.00102		<0.01
5/2/2018		<0.01			<0.00102	
11/26/2018	<0.01		0.00286 (J)			<0.01
11/27/2018		<0.01		<0.00102	<0.00102	
5/28/2019		<0.01	0.0089 (J)	<0.00102	<0.00102	
5/29/2019	<0.01					<0.01
10/2/2019	<0.01	<0.01	0.00472 (J)	<0.00102	<0.00102	<0.01
3/30/2020		<0.01	0.00658 (J)	<0.00102	<0.00102	
3/31/2020	<0.01					<0.01
9/8/2020		0.0052 (J)	0.0052 (J)	<0.00102	<0.00102	
9/9/2020	<0.01					<0.01
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.00102	<0.00102	0.00128
10/18/2021			0.00672	<0.00102		
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118
5/31/2022		0.0217	0.0132			
6/1/2022	0.00125			0.00058 (J)	<0.00102	0.00204
11/2/2022	0.00133	0.0247	0.0156	<0.00102	<0.00102	0.00198

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.00102	<0.00102	<0.00102	<0.00102
4/19/2016		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2016		<0.00102			<0.00102
6/7/2016			<0.00102	<0.00102	
8/30/2016		<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016		<0.00102	<0.00102	<0.00102	<0.00102
1/31/2017		<0.00102	<0.00102	<0.00102	<0.00102
5/2/2017		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102	<0.00102	<0.00102
1/23/2018		<0.00102	<0.00102	<0.00102	<0.00102
5/1/2018			<0.00102	<0.00102	<0.00102
5/2/2018		<0.00102			
11/26/2018					<0.00102
11/27/2018		<0.00102	<0.00102	<0.00102	
5/28/2019					<0.00102
5/29/2019		<0.00102	<0.00102	<0.00102	
10/2/2019		<0.00102	<0.00102	<0.00102	<0.00102
3/31/2020	<0.01	<0.00102	<0.00102	<0.00102	<0.00102
9/8/2020	<0.01				<0.00102
9/9/2020		<0.00102	<0.00102	<0.00102	
5/11/2021			0.000602 (J)	<0.00102	<0.00102
5/12/2021	0.00111	<0.00102			
10/18/2021				<0.00102	<0.00102
10/19/2021	0.00114	<0.00102	<0.00102		
5/31/2022		<0.00102	0.00063 (J)	<0.00102	<0.00102
6/1/2022	0.00132				
11/1/2022		<0.00102 (D)	0.000558 (JD)	<0.00102 (D)	<0.00102 (D)
11/2/2022	0.00163				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	9.29	12.5	36.5	3.82	3.33	7.71
4/18/2016		28.6	80.2 (O)	3.48	3.78	
4/19/2016	9.92					7.85
6/6/2016			0.498 (J)	3.76		
6/7/2016	10	18.7			4.44	7.76
8/30/2016	11.1	13.8	27.8	3.62	4.29	8.22
10/18/2016	11.7	12.2	22.5	2.58	4.27	9.29
3/21/2017	9	8.6	15	3.3 (J)	3.6 (J)	7.1
5/2/2017	7.9	8	11	2.5 (J)	2.9 (J)	5.7
6/6/2017		8.6	10			
6/7/2017	8.4			3.1 (J)	2.9 (J)	7.1
9/12/2017			7.5	3 (J)		
9/13/2017	8.7	7.6			3.2 (J)	7.3
5/1/2018	10		8.5	1.6 (J)		7.1
5/2/2018		6			2.6 (J)	
11/26/2018	8.3		7.4			7.3
11/27/2018		5.5		1.9 (J)	2.8 (J)	
5/28/2019		6.5	32.7	4.86	4.46	
5/29/2019	11.1					12.3
10/2/2019	13.2	6.55	15.9	4.6	4.96	11.6
3/30/2020		6.34	21.8	4.29	4.84	
3/31/2020	11.1					12.5
9/8/2020		15.1	17.7	3.59	4.56	
9/9/2020	9.28					10.7
5/12/2021	11	38.2	37.1	3.58	4.7	12.5
10/18/2021			24.7	2.54		
10/19/2021	10.1	12.3			4.2	12.6
5/31/2022		48.7	38.6			
6/1/2022	11.4			3.4	5.11	13
11/2/2022	11.5	51.400002	36.900002	2.35	5.34	12.2

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		8.59	7.2	7.44	7.04
4/19/2016		8.27	7.22	7.66	6.74
6/6/2016		8.66			7.04
6/7/2016			7.92	8.16	
8/30/2016		9.74	8.17	8.43	7.57
10/18/2016		10.2	7.99	8.47	6.62
3/20/2017		8.3	6.1	7.4	7
5/2/2017		6.6	5	6.3	5.6
6/6/2017		7.6	5.3	7.1	6.6
9/12/2017					7.2
9/13/2017		8.4	4.9 (J)	7.3	
5/1/2018			4.2 (J)	6.9	5.9
5/2/2018		5.9			
11/26/2018					5.1
11/27/2018		22	3.7 (J)	6.5	
5/28/2019					7.1
5/29/2019		23.3	5.94	7.81	
10/2/2019		17.5	6.04	7.62	6.88
3/31/2020	3.16	24.3	6.83	7.98	10.8
9/8/2020	3.61				6.52
9/9/2020		16.5	6.08	7.13	
5/11/2021			7.92	7.73	6.8
5/12/2021	4.62	16.3			
10/18/2021				7.36	6.58
10/19/2021	4.92	15.5	7.48		
5/31/2022		12.8	8.09	7.02	7.94
6/1/2022	4.75				
11/1/2022		11.3 (D)	7.11 (D)	6.83 (D)	4.59 (D)
11/2/2022	4.65				

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2023 1:58 PM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	37.3	38	128	<25	30	25.3
4/18/2016		62	166	<25	27.3	
4/19/2016	34					28
6/6/2016			131	32.7		
6/7/2016	38.7	51.3			32	34.7
8/30/2016	34	38	86.7	25.3	<25	26.7
10/18/2016	31.3	28.7	67.3	28	28	32
1/30/2017	<25			45.3		32.7
1/31/2017		34	60.7		26	
5/2/2017	29.3	37.3	50	26.7	25.3	30.7
6/6/2017		36.7	47.3			
6/7/2017	36			28	<25	<25
9/12/2017			42.7	35.3		
9/13/2017	35.3	37.3			31.3	37.3
5/1/2018	32		44	30.7		39.3
5/2/2018		30.7			30.7	
11/26/2018	31.3		38			48
11/27/2018		<25		30.7	35.3	
5/28/2019		26	77.3	33.3	28.7	
5/29/2019	43.3					60
10/2/2019	36	34.7	50.7	30.7	37.3	46.7
3/30/2020		32	58	39.3	30	
3/31/2020	33.3					37.3
9/8/2020		55.3	59.3	42	38	
9/9/2020	39.3					50.7
5/12/2021	42.7	85.3	98.7	52.7	40	50.7
10/18/2021			77.3	42.7		
10/19/2021	39.3	48.7			33.3	48
5/31/2022		104	85.3			
6/1/2022	40.7			41.3	30.7	39.3
11/2/2022	36.700001	115	83.300003	56	34	34.700001

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		26.7	30.7	40	<25
4/19/2016		<25	<25	32	<25
6/6/2016		32.7			28.7
6/7/2016			35.3	38.7	
8/30/2016		33.3	27.3	31.3	25.3
10/18/2016		27.3	<25	26.7	<25
1/31/2017		32	32.7	30	26
5/2/2017		31.3	30.7	30.7	<25
6/6/2017		35.3	34.7	32.7	42.7
9/12/2017					26.7
9/13/2017		36.7	39.3	38	
5/1/2018			42	35.3	34.7
5/2/2018		34			
11/26/2018					32.7
11/27/2018		50.7	31.3	36	
5/28/2019					31.3
5/29/2019		58	40	37.3	
10/2/2019		46	41.3	36.7	36
3/31/2020	<25	53.3	40	39.3	36.7
9/8/2020	29.3				39.3
9/9/2020		42	40.7	42.7	
5/11/2021			35.3	44	46.7
5/12/2021	40	40.7			
10/18/2021				36	36
10/19/2021	37.3	40	36		
5/31/2022		32	30.7	35.3	36.7
6/1/2022	35.3				
11/1/2022		33.299999 (D)	36 (D)	36 (D)	31.299999 (D)
11/2/2022	37.299999				

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/18/2016		<0.0002	<0.0002	<0.0002	<0.0002	
4/19/2016	<0.0002					<0.0002
6/6/2016			<0.0002	<0.0002		
6/7/2016	<0.0002	<0.0002			<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/30/2017	<0.0002			<0.0002		<0.0002
1/31/2017		<0.0002	<0.0002		<0.0002	
5/2/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
6/6/2017		<0.0002	<0.0002			
6/7/2017	<0.0002			<0.0002	<0.0002	<0.0002
1/22/2018			<0.0002	<0.0002		
1/23/2018	<0.0002					<0.0002
1/24/2018		<0.0002			<0.0002	
5/1/2018	<0.0002		<0.0002	<0.0002		<0.0002
5/2/2018		<0.0002			<0.0002	
11/26/2018	<0.0002		<0.0002			<0.0002
11/27/2018		<0.0002		<0.0002	<0.0002	
5/28/2019		<0.0002	<0.0002	<0.0002	<0.0002	
5/29/2019	<0.0002					<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/30/2020		<0.0002	<0.0002	<0.0002	<0.0002	
3/31/2020	<0.0002					<0.0002
9/8/2020		<0.0002	<0.0002	<0.0002	<0.0002	
9/9/2020	<0.0002					<0.0002
5/12/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2021			<0.0002	<0.0002		
10/19/2021	<0.0002	<0.0002			<0.0002	<0.0002
5/31/2022		<0.0002	<0.0002			
6/1/2022	<0.0002			<0.0002	<0.0002	<0.0002
11/2/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

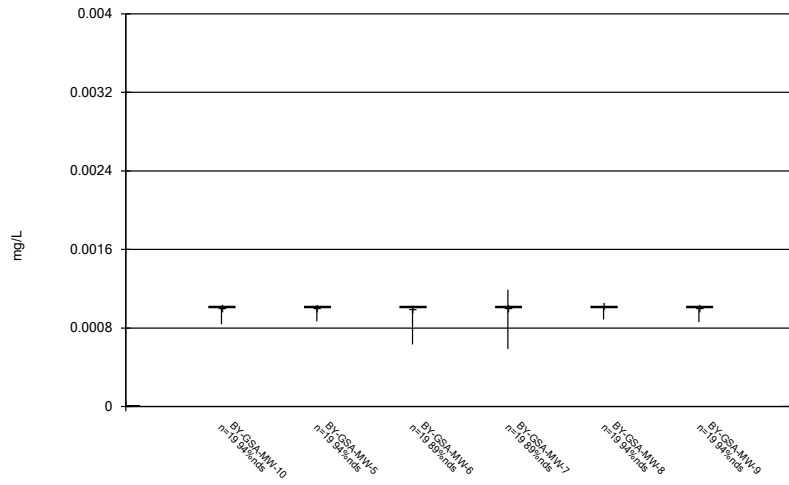
Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2023 1:58 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.0002	<0.0002	<0.0002	<0.0002
4/19/2016		<0.0002	<0.0002	<0.0002	<0.0002
6/6/2016		<0.0002			<0.0002
6/7/2016			<0.0002	<0.0002	
8/30/2016		<0.0002	<0.0002	<0.0002	<0.0002
10/18/2016		<0.0002	<0.0002	<0.0002	<0.0002
1/31/2017		<0.0002	<0.0002	<0.0002	<0.0002
5/2/2017		<0.0002	<0.0002	<0.0002	<0.0002
6/6/2017		<0.0002	<0.0002	<0.0002	<0.0002
1/23/2018		<0.0002	<0.0002	<0.0002	<0.0002
5/1/2018			<0.0002	<0.0002	<0.0002
5/2/2018		<0.0002			
11/26/2018					<0.0002
11/27/2018		<0.0002	<0.0002	<0.0002	
5/28/2019					<0.0002
5/29/2019		<0.0002	<0.0002	<0.0002	
10/2/2019		<0.0002	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002				<0.0002
9/9/2020		<0.0002	<0.0002	<0.0002	
5/11/2021			<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002			
10/18/2021				<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002	<0.0002		
5/31/2022		<0.0002	<0.0002	<0.0002	<0.0002
6/1/2022	<0.0002				
11/1/2022		<0.0002 (D)	<0.0002 (D)	<0.0002 (D)	<0.0002 (D)
11/2/2022	<0.0002				

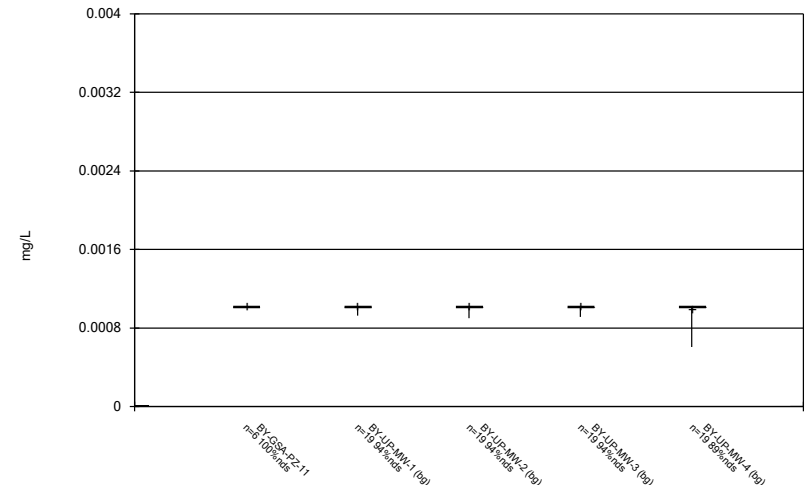
FIGURE B.

Box & Whiskers Plot



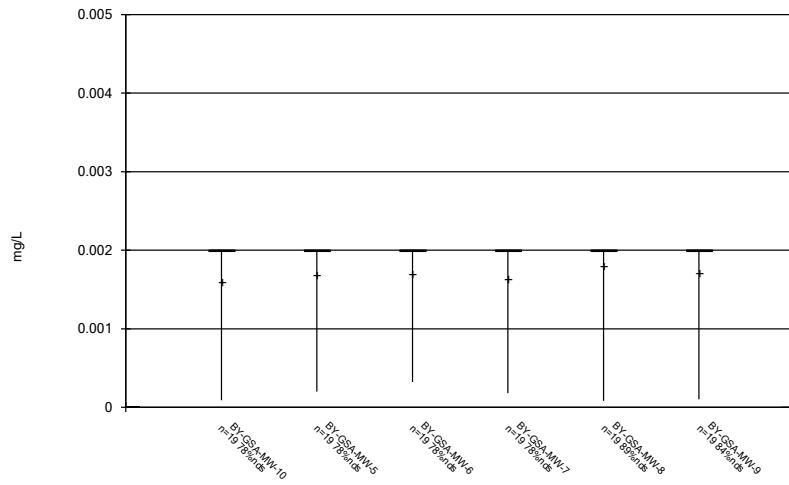
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



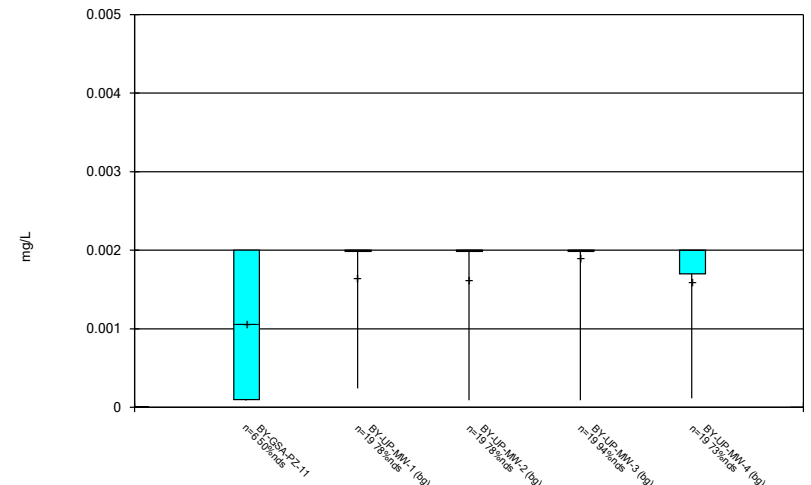
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



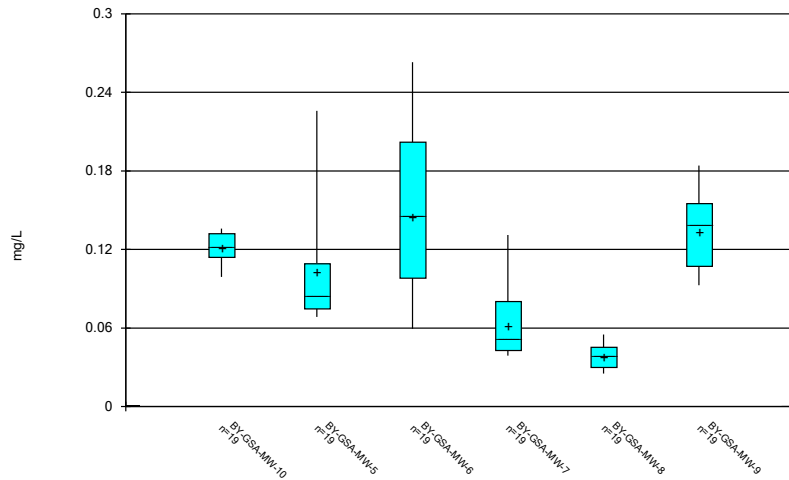
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Box & Whiskers Plot



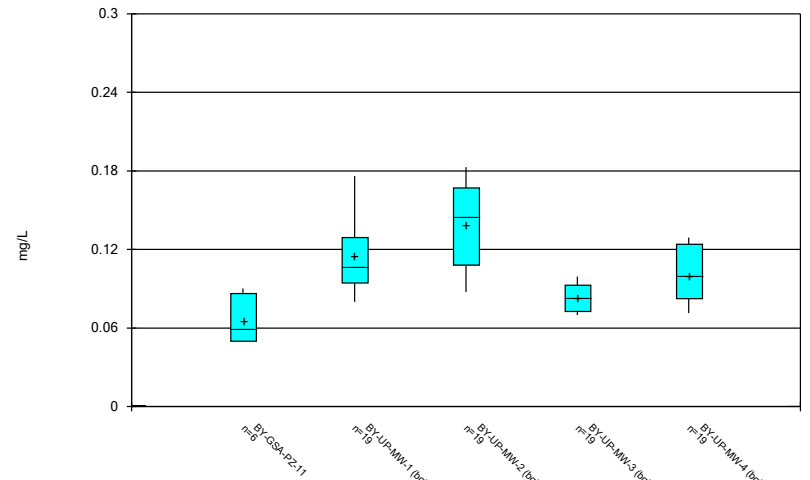
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Box & Whiskers Plot



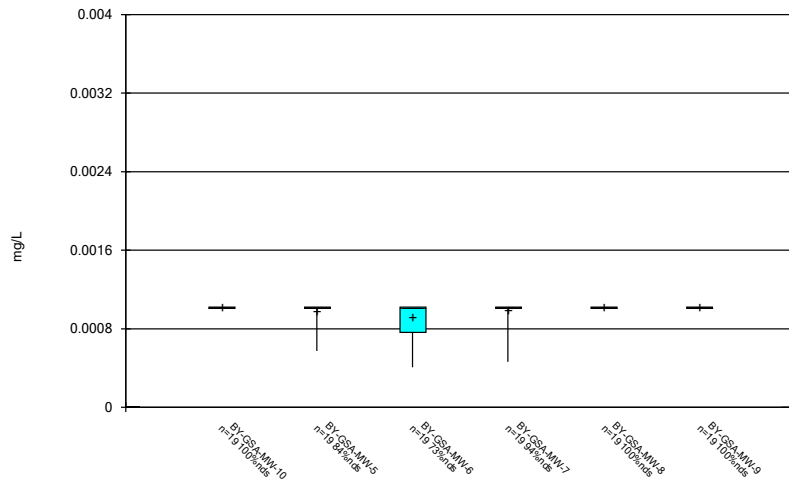
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



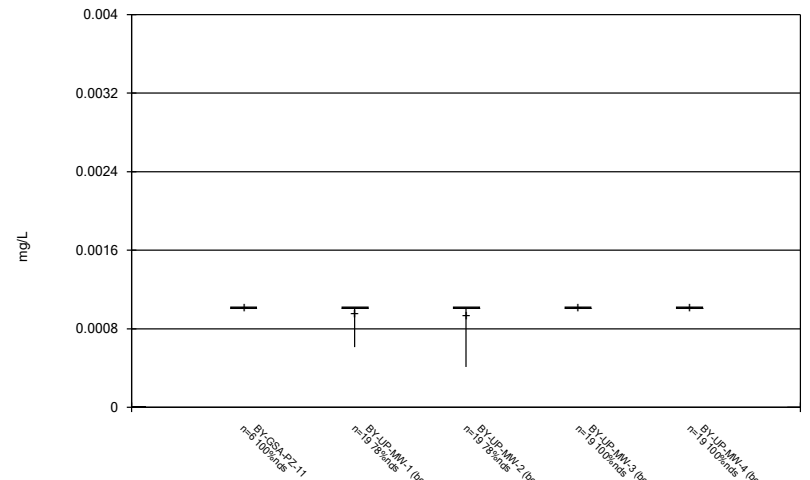
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



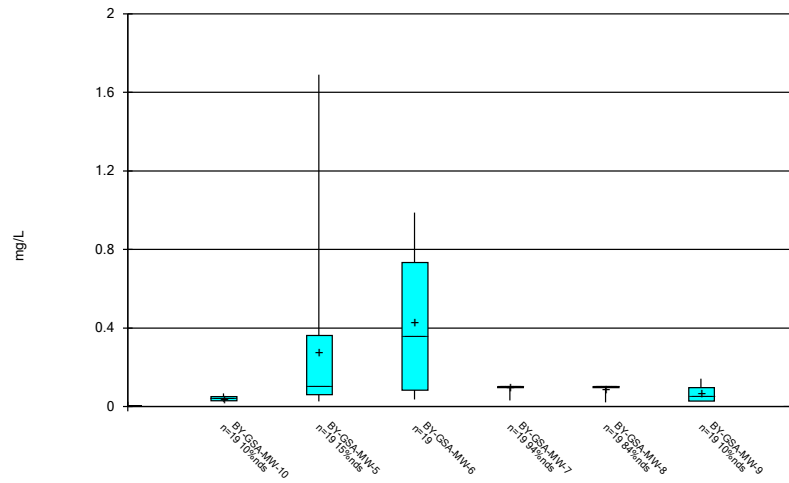
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



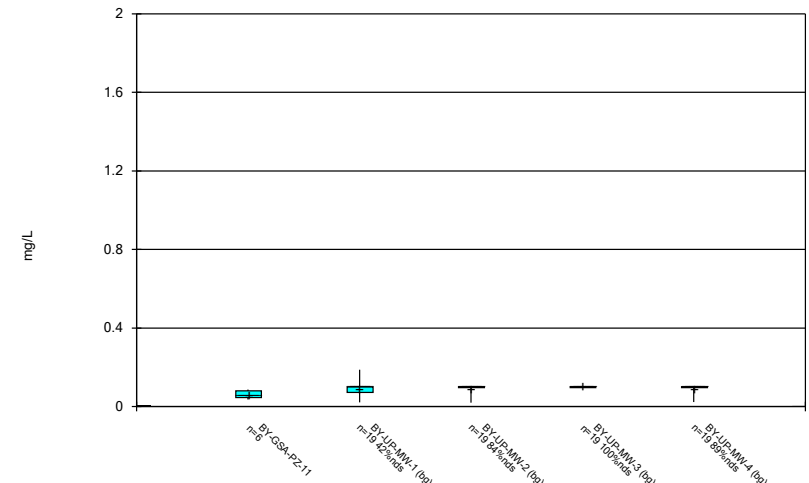
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



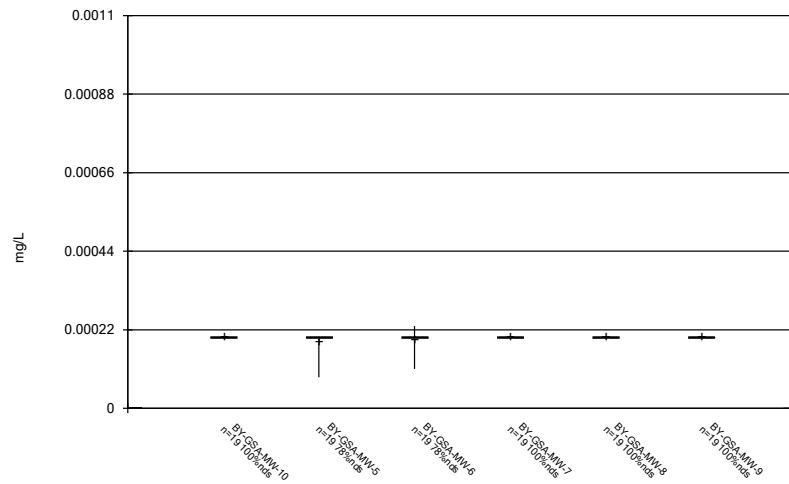
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



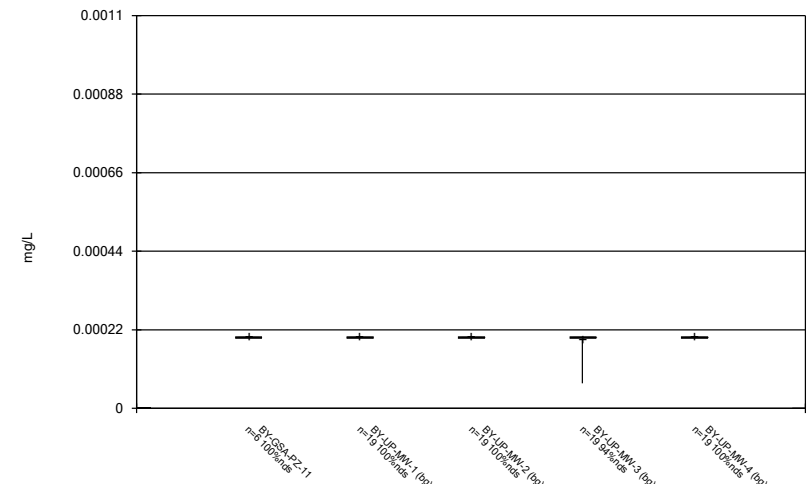
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



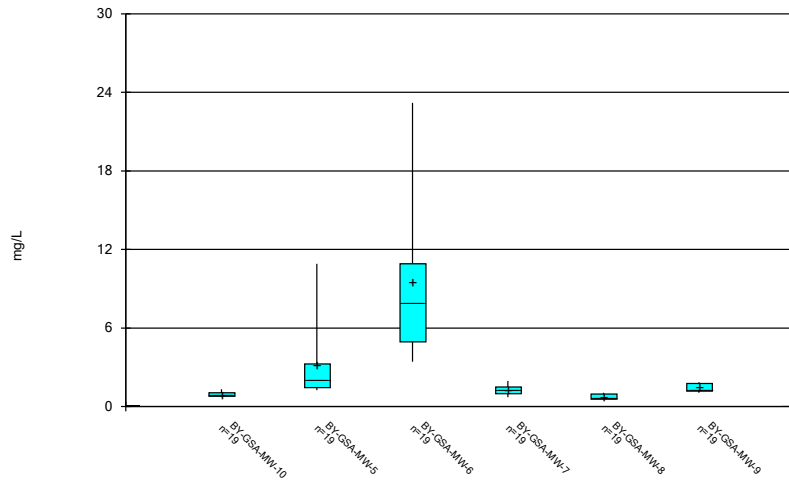
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Box & Whiskers Plot



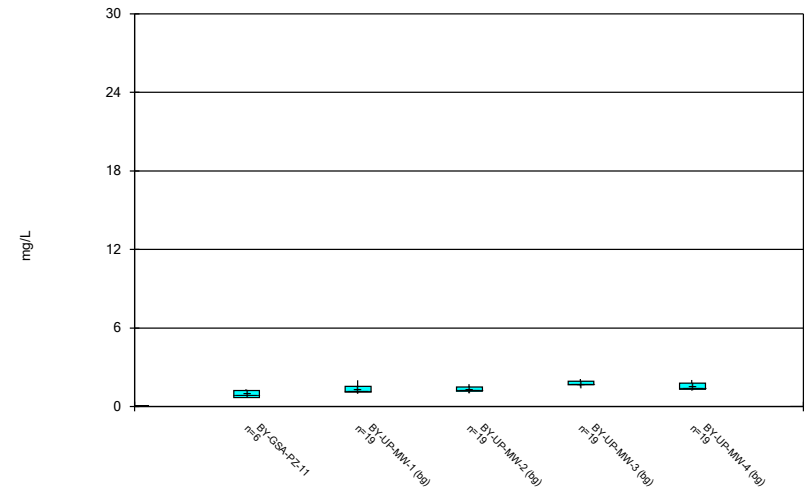
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Box & Whiskers Plot



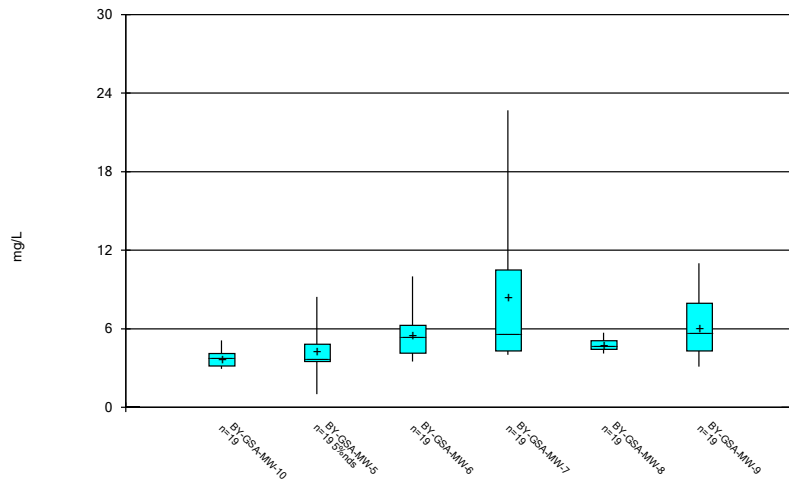
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Box & Whiskers Plot



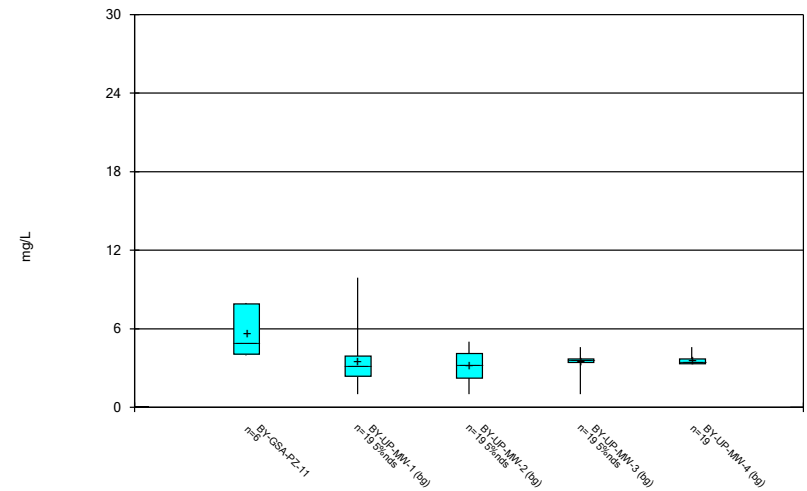
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Box & Whiskers Plot



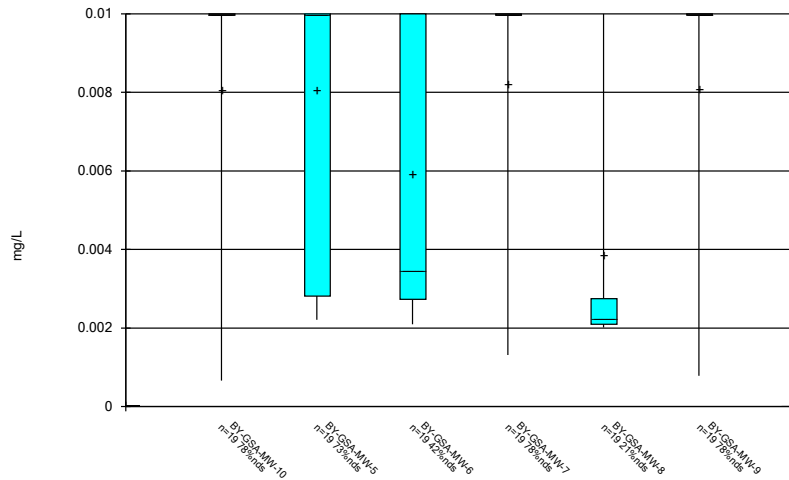
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Box & Whiskers Plot



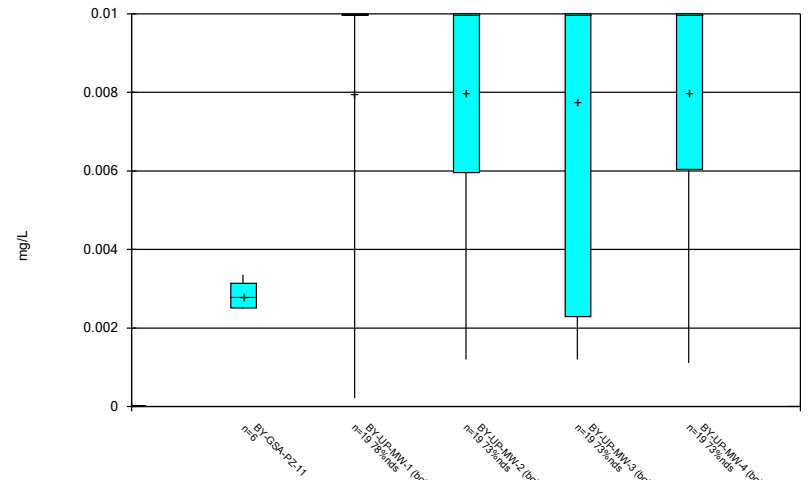
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Box & Whiskers Plot



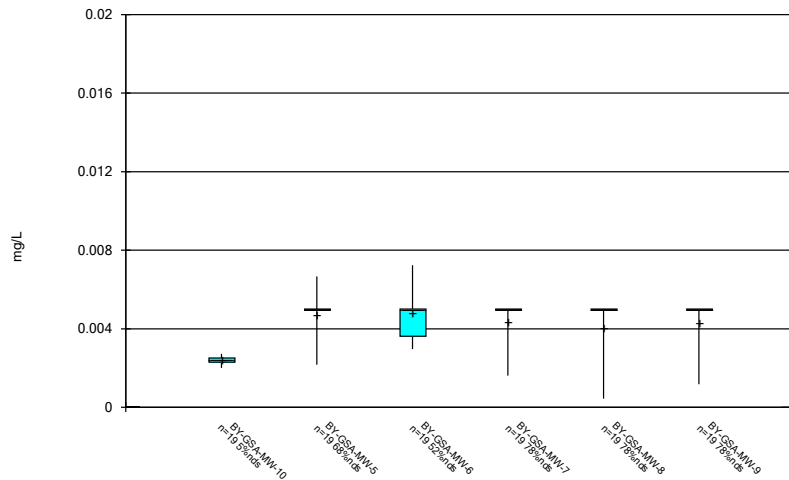
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



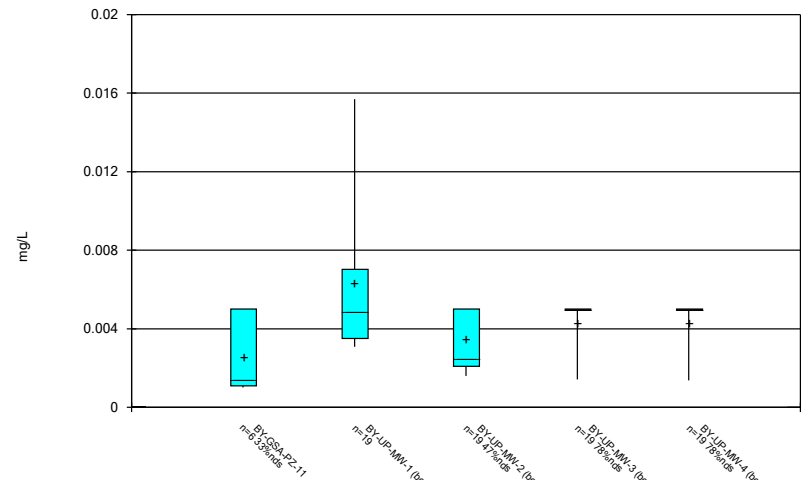
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Box & Whiskers Plot



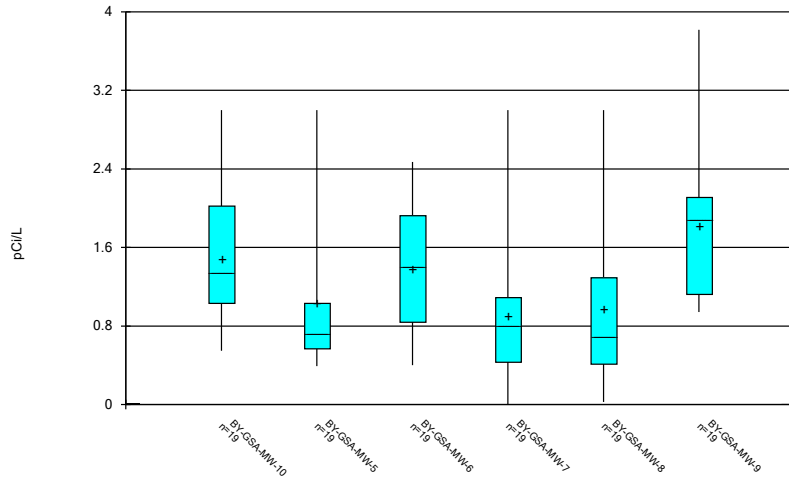
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Box & Whiskers Plot



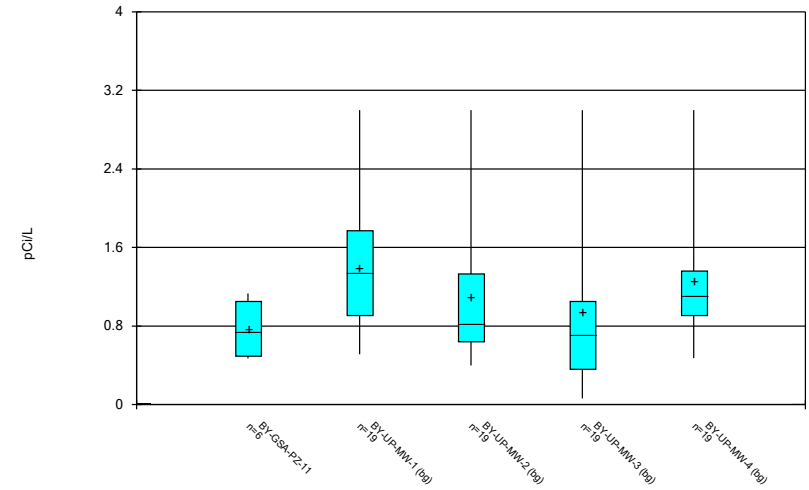
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Box & Whiskers Plot



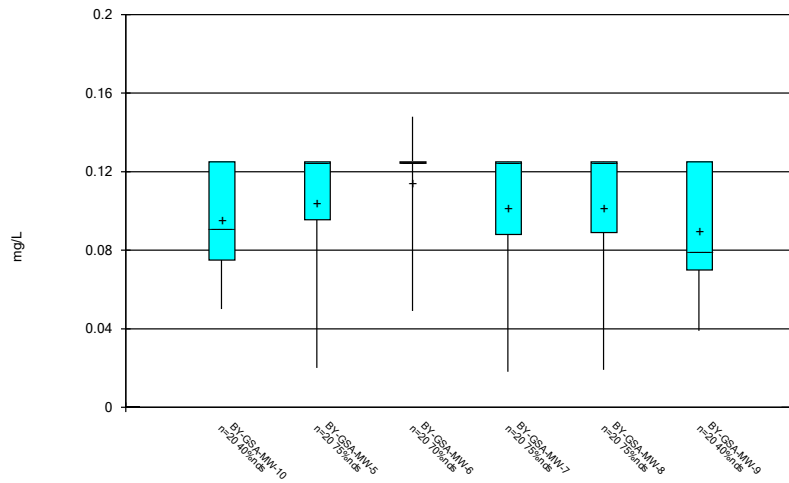
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Box & Whiskers Plot



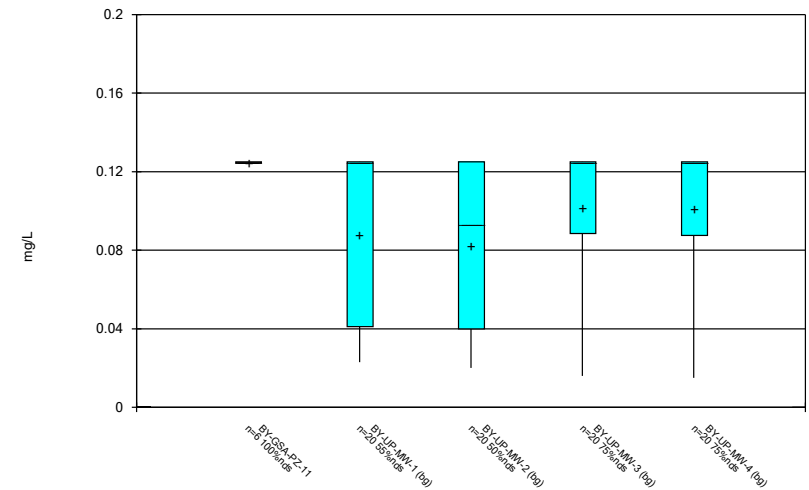
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Box & Whiskers Plot



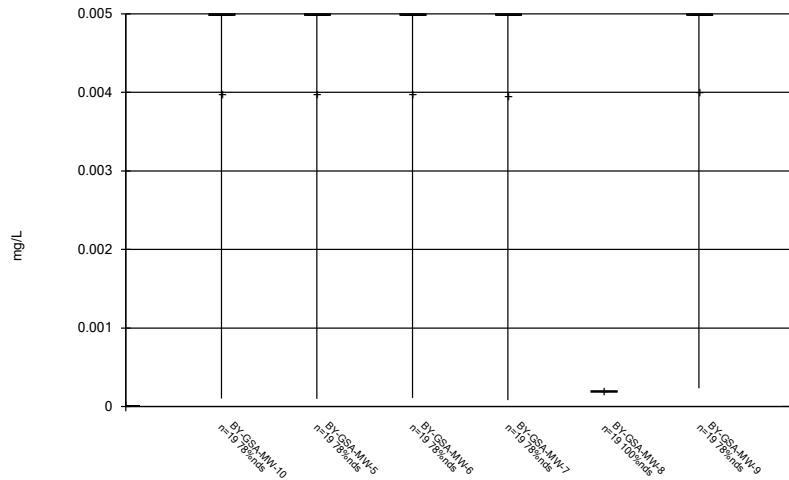
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Box & Whiskers Plot



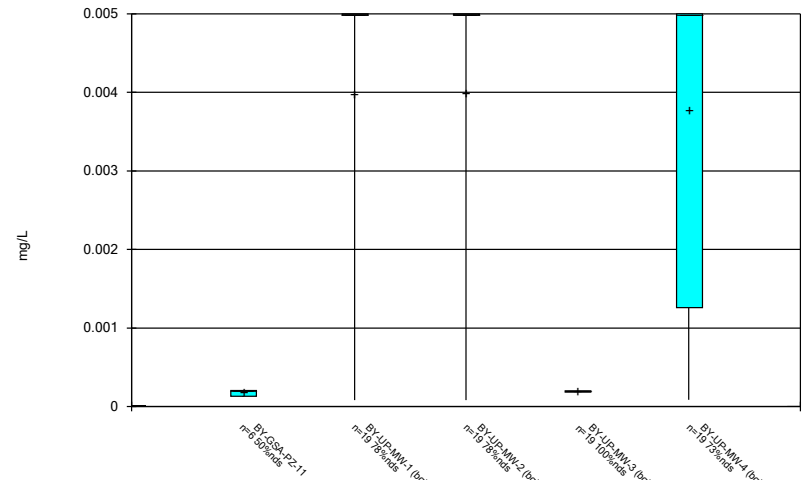
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Box & Whiskers Plot



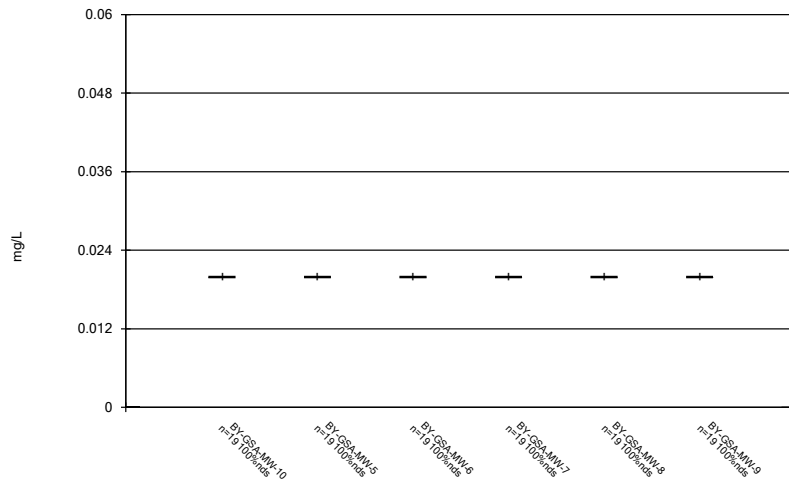
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



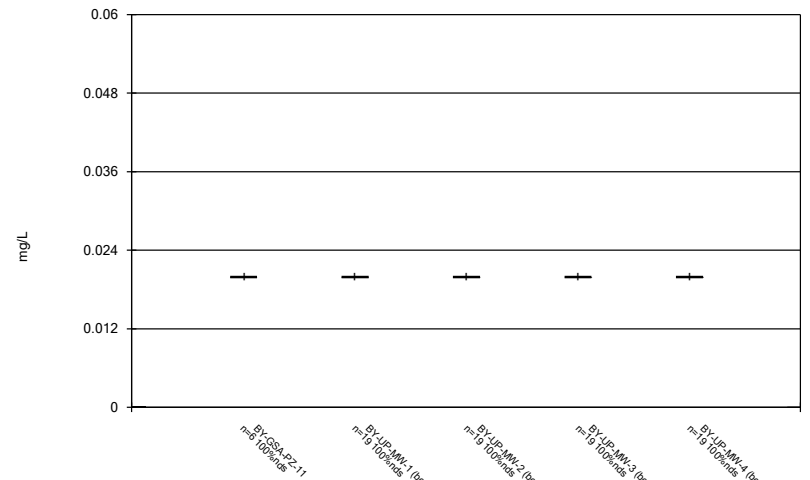
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Box & Whiskers Plot



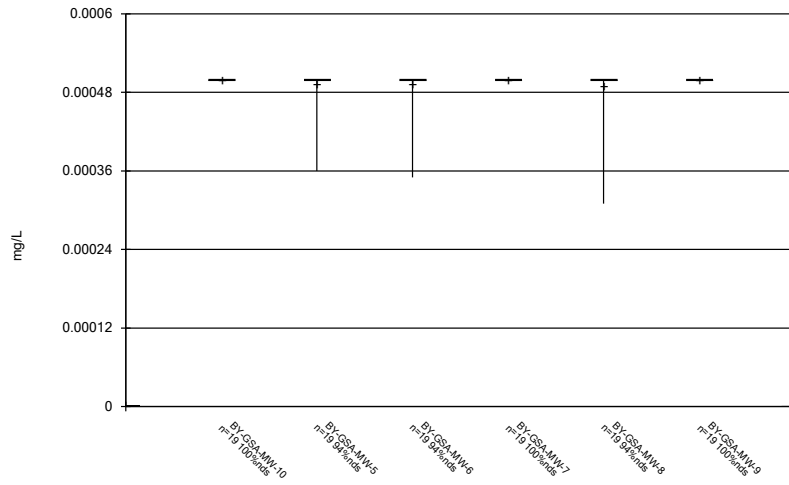
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Box & Whiskers Plot



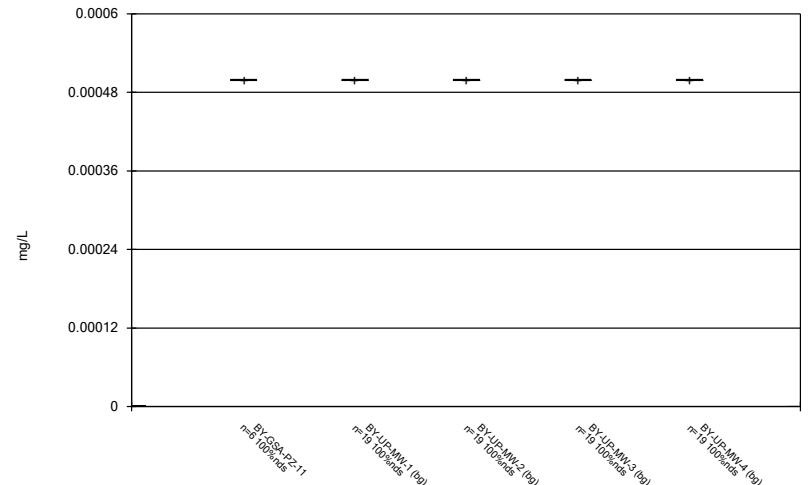
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Box & Whiskers Plot



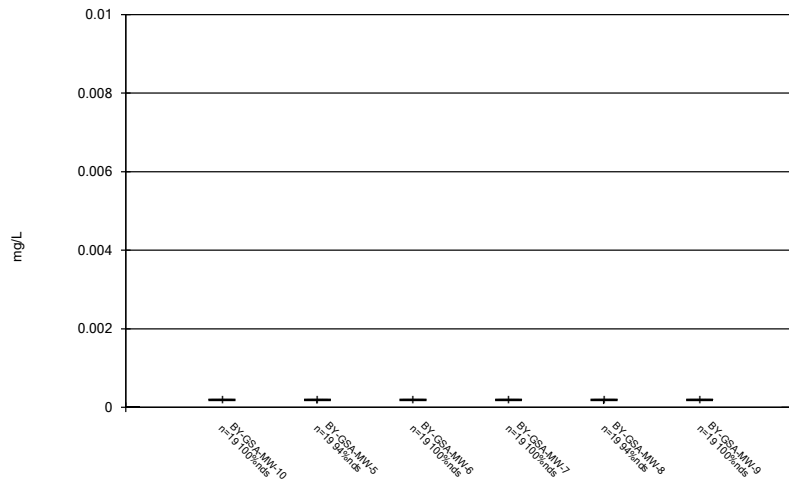
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Box & Whiskers Plot



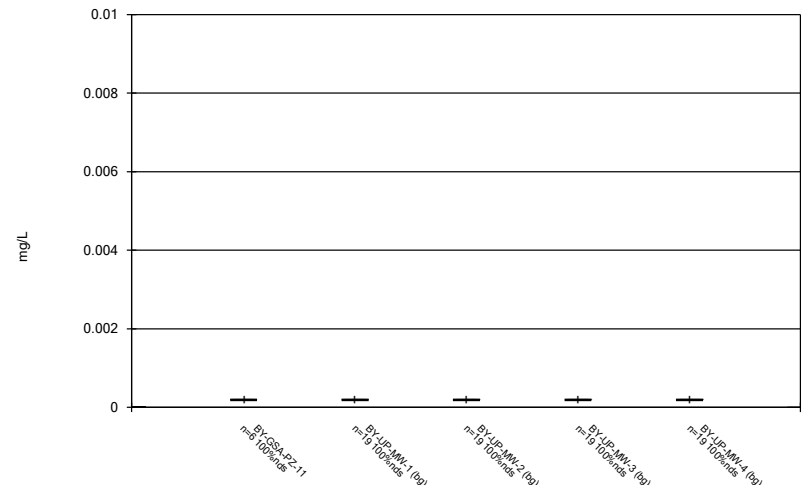
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Box & Whiskers Plot



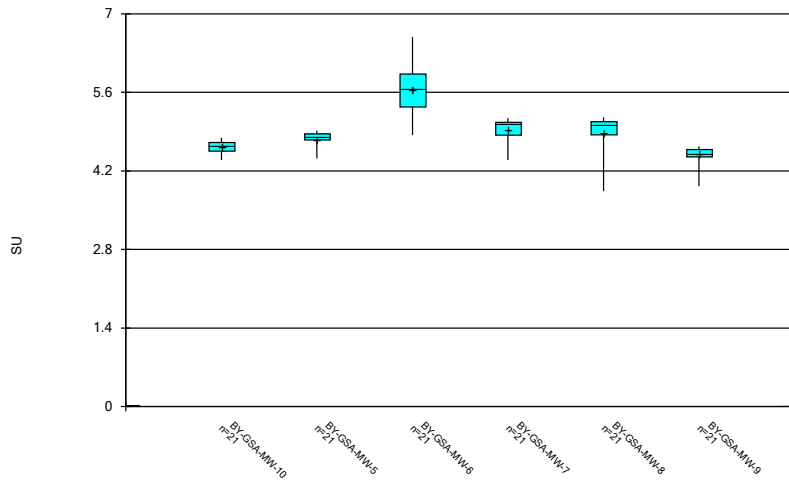
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Box & Whiskers Plot



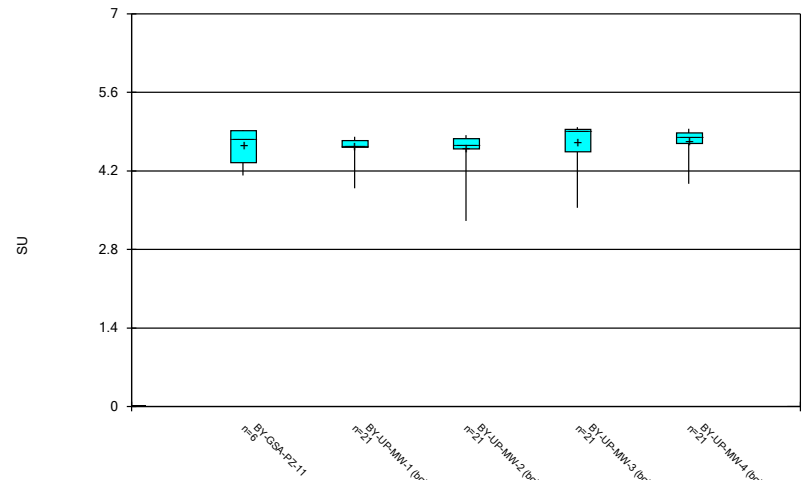
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



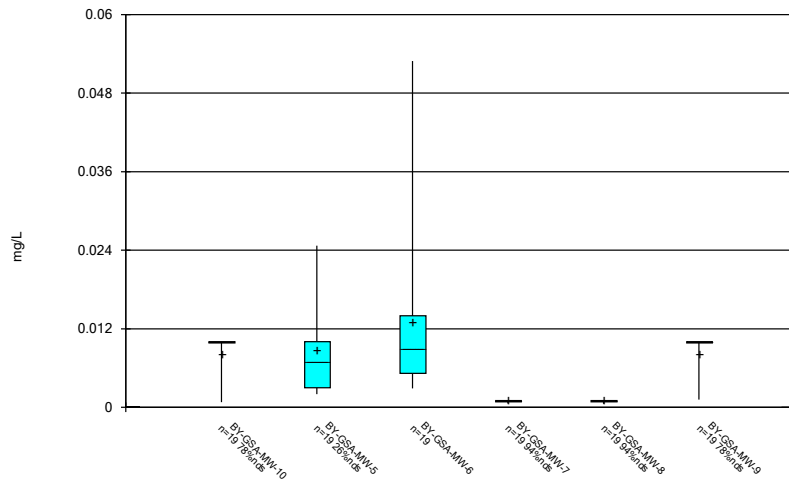
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



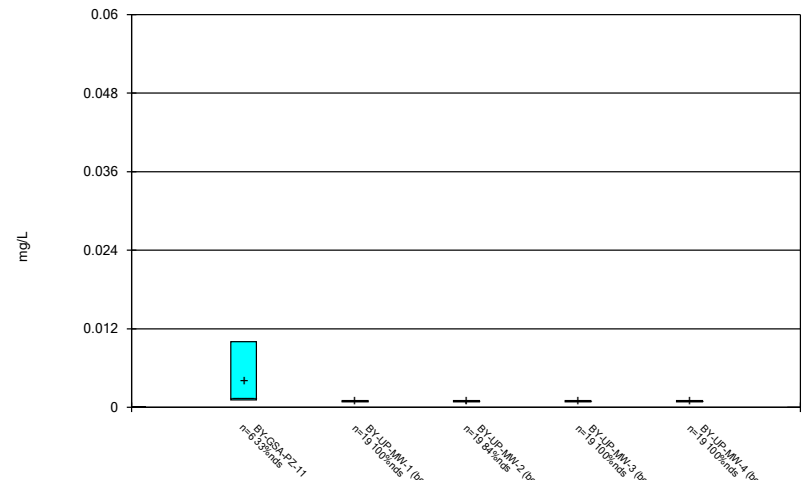
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



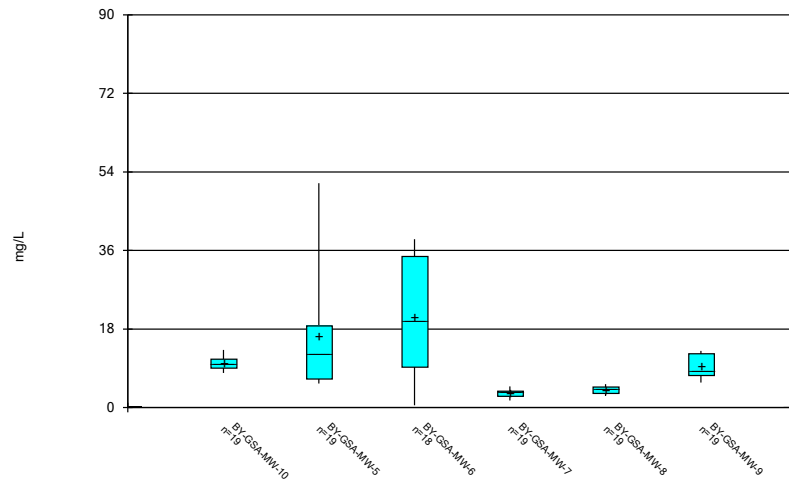
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



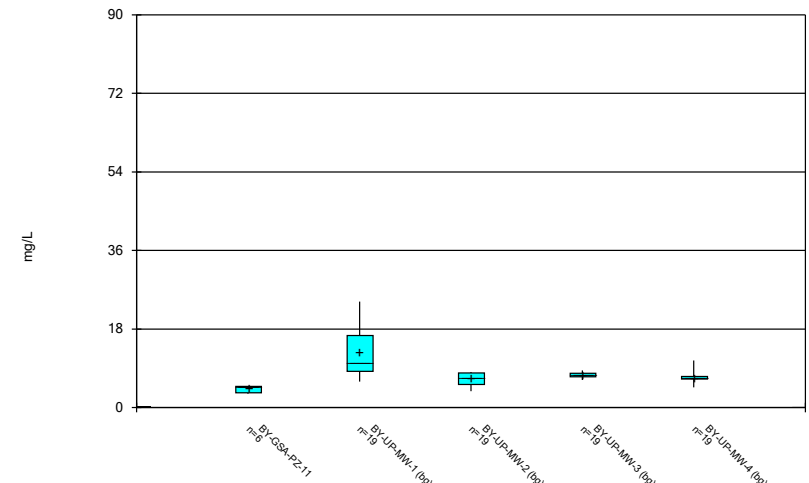
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Box & Whiskers Plot



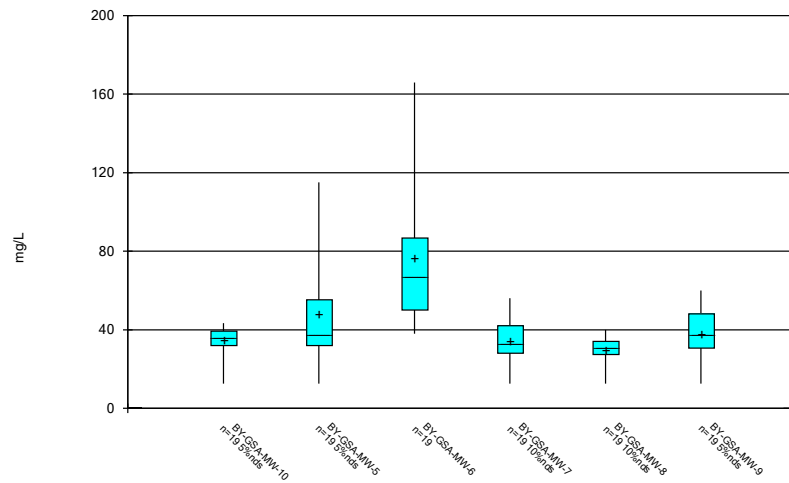
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Box & Whiskers Plot



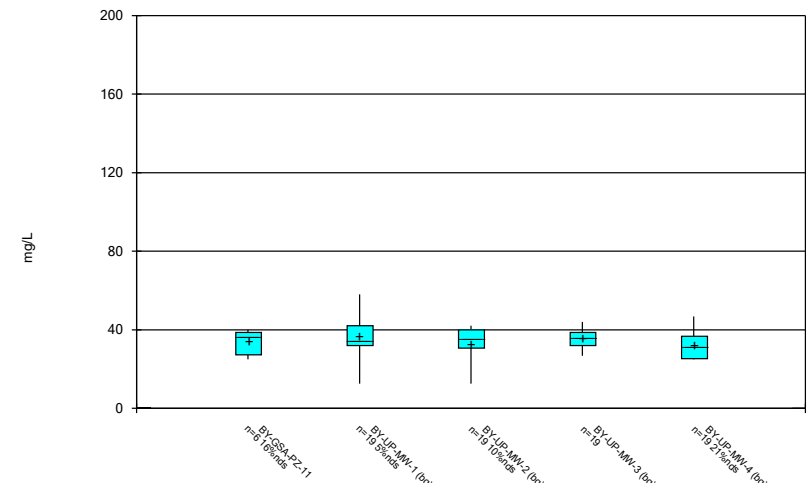
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



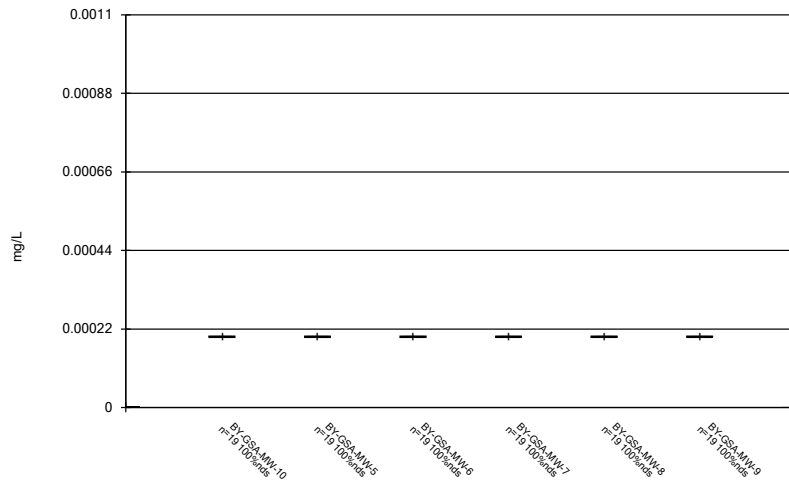
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Box & Whiskers Plot



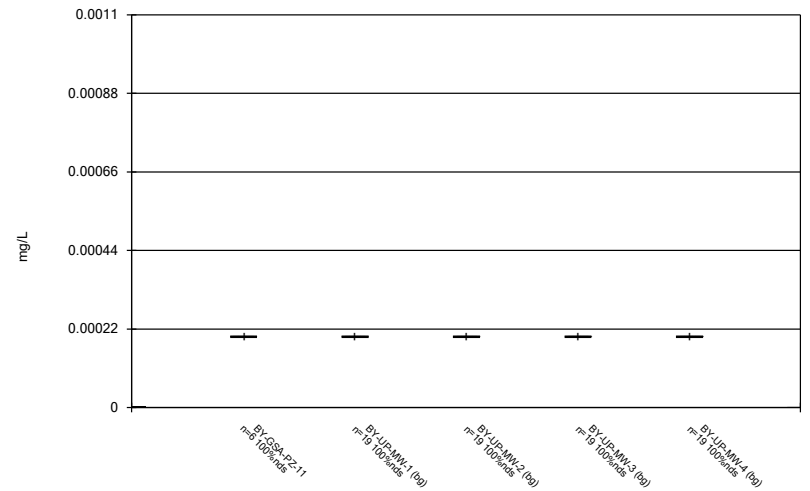
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 1/3/2023 2:01 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 1/3/2023 2:01 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:03 PM

BY-GSA-MW-6 Sulfate (mg/L)

4/18/2016

80.2 (O)

FIGURE D.

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:08 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	11/2/2022	8.44	Yes	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality)	1 of 2	
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	11/2/2022	22.7	Yes	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra	1 of 2	
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	11/2/2022	51.4	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra	1 of 2	

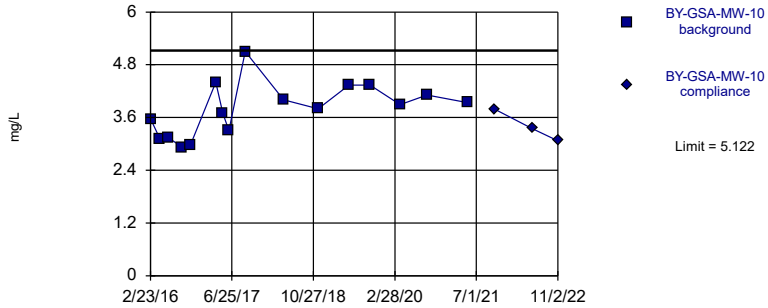
Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:08 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	11/2/2022	3.07	No	16	3.79	0.6038	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	11/2/2022	8.44	Yes	16	n/a	n/a	6.25	n/a	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	11/2/2022	6.58	No	16	4.996	1.21	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	11/2/2022	22.7	Yes	16	1.782	0.4263	0	None	In(x)	0.001254	Param Intra 1 of 2	
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	11/2/2022	5.08	No	16	4.673	0.412	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	11/2/2022	3.14	No	16	6.335	2.163	0	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-1	8.264	n/a	11/1/2022	2.37	No	16	1.897	0.4435	6.25	None	sqrt(x)	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.698	n/a	11/1/2022	2.22	No	16	3.416	1.035	6.25	None	No	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	11/1/2022	3.09	No	16	n/a	n/a	6.25	n/a	n/a	No	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	11/1/2022	3.3	No	16	1.912	0.08933	0	None	sqrt(x)	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	11/2/2022	11.5	No	16	9.999	1.445	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	11/2/2022	51.4	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2	
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	11/2/2022	36.9	No	15	18.13	11.34	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	11/2/2022	2.35	No	16	3.349	0.8938	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	11/2/2022	5.34	No	16	3.852	0.8066	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	11/2/2022	12.2	No	16	8.877	2.273	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	11/1/2022	11.3	No	16	3.458	0.85	0	None	sqrt(x)	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	11/1/2022	7.11	No	16	6.282	1.406	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	11/1/2022	6.83	No	16	7.496	0.6224	0	None	No	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	11/1/2022	4.59	No	16	n/a	n/a	0	n/a	n/a	No	0.006456	NP Intra (normality) 1 of 2

Within Limit

Prediction Limit Intrawell Parametric



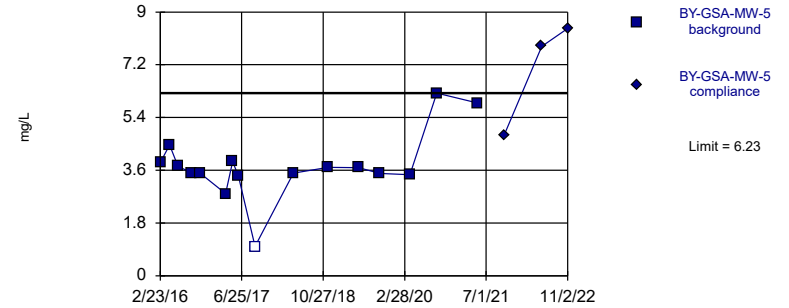
Background Data Summary: Mean=3.79, Std. Dev.=0.6038, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9569, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit Intrawell Non-parametric

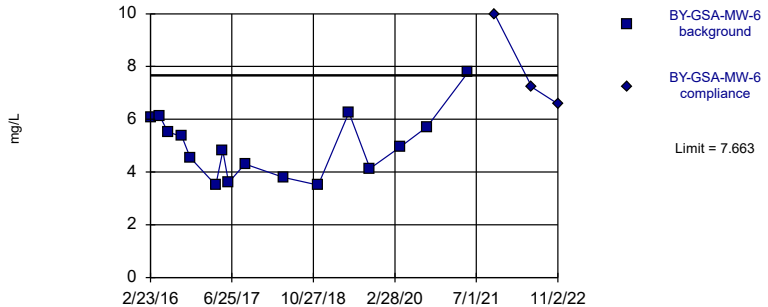


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

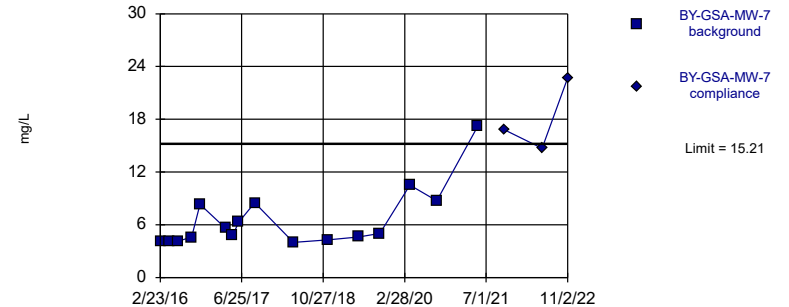


Background Data Summary: Mean=4.996, Std. Dev.=1.21, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit

Prediction Limit Intrawell Parametric

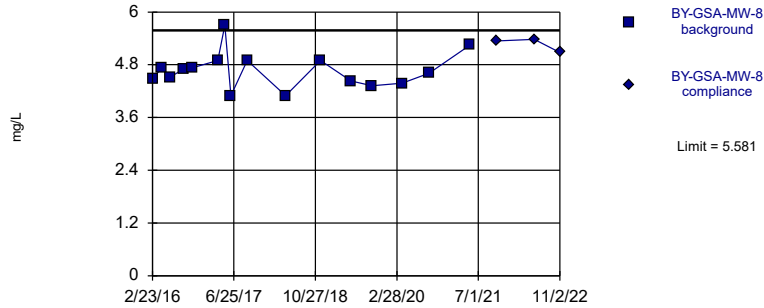


Background Data Summary (based on natural log transformation): Mean=1.782, Std. Dev.=0.4263, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8462, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

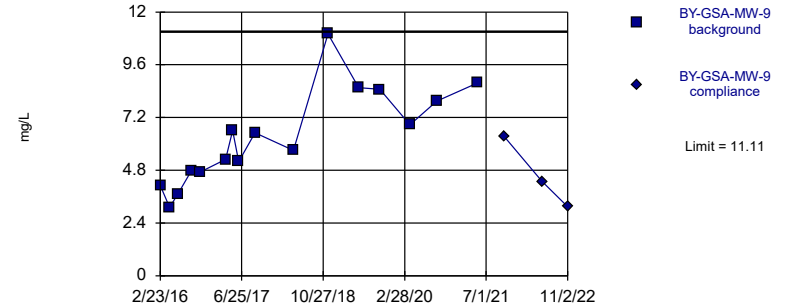


Background Data Summary: Mean=4.673, Std. Dev.=0.412, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9362, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

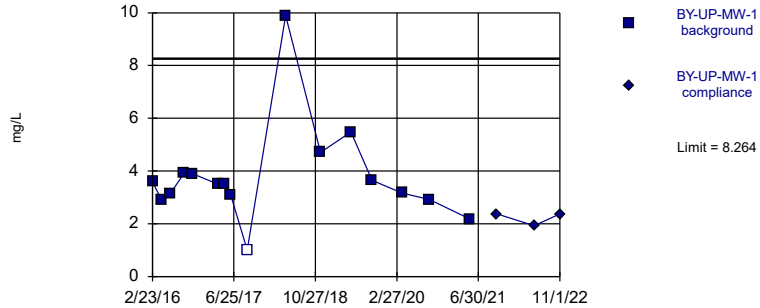


Background Data Summary: Mean=6.335, Std. Dev.=2.163, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9628, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

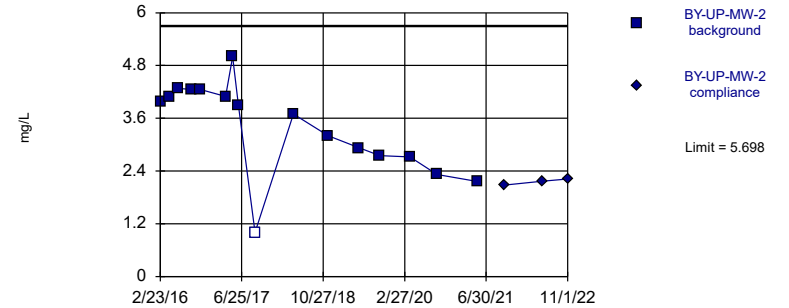


Background Data Summary (based on square root transformation): Mean=1.897, Std. Dev.=0.4435, n=16, 6.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8589, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric



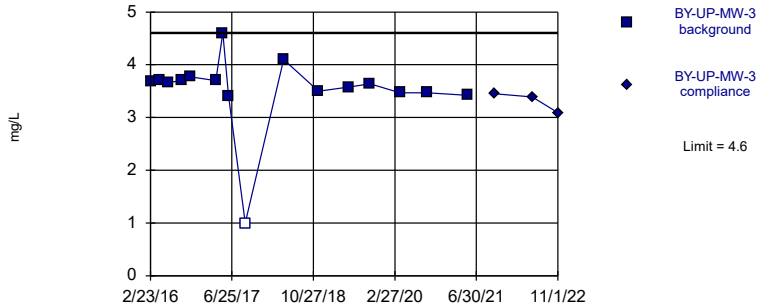
Background Data Summary: Mean=3.416, Std. Dev.=1.035, n=16, 6.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit

Intrawell Non-parametric



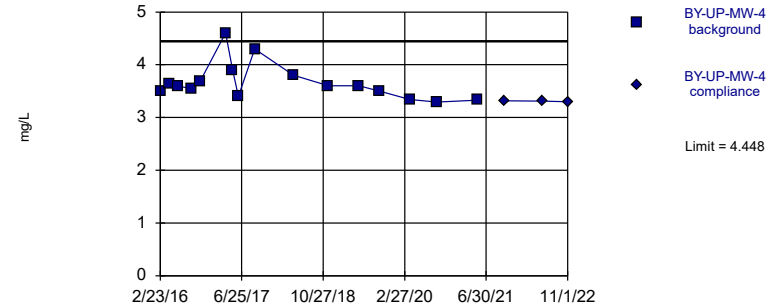
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit

Intrawell Parametric



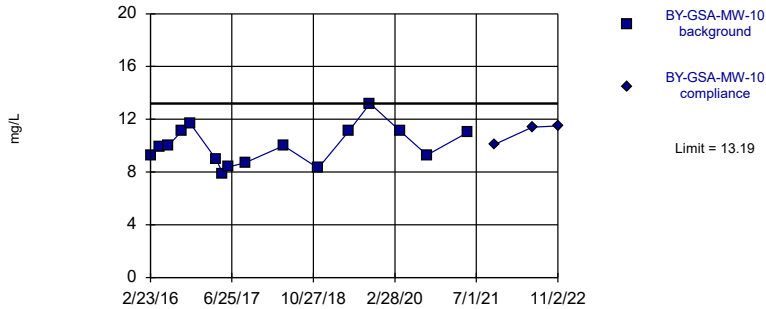
Background Data Summary (based on square root transformation): Mean=1.912, Std. Dev.=0.08933, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8449, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit

Intrawell Parametric



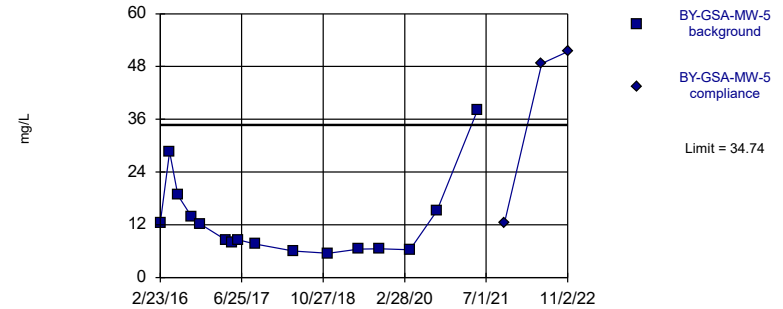
Background Data Summary: Mean=9.999, Std. Dev.=1.445, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9529, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit

Prediction Limit

Intrawell Parametric

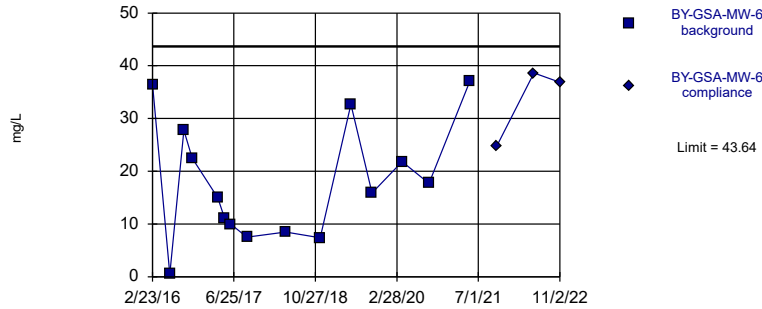


Background Data Summary (based on cube root transformation): Mean=2.238, Std. Dev.=0.4647, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8593, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

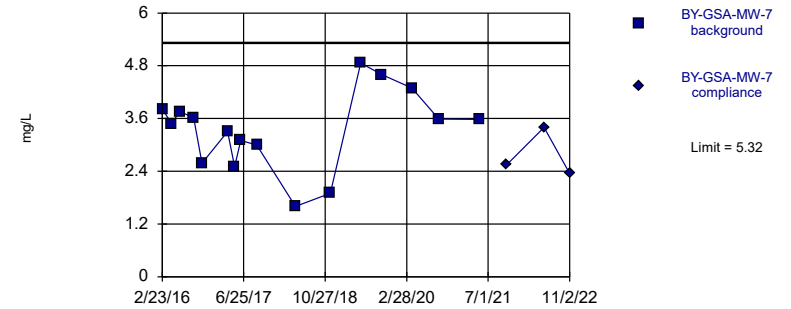


Background Data Summary: Mean=18.13, Std. Dev.=11.34, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9407, critical = 0.835. Kappa = 2.25 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

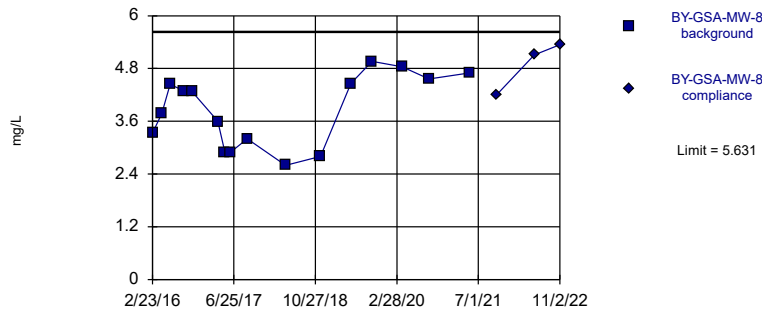


Background Data Summary: Mean=3.349, Std. Dev.=0.8938, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9701, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

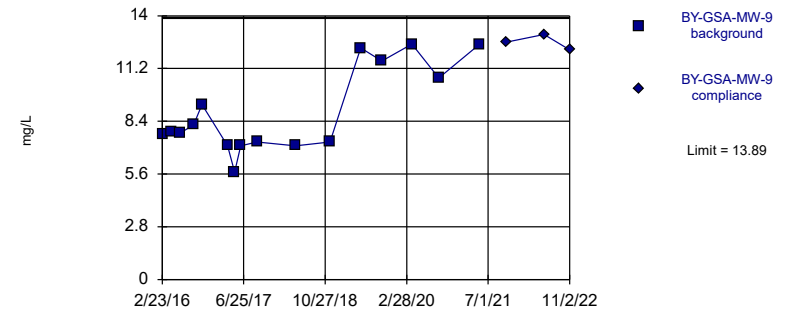


Background Data Summary: Mean=3.852, Std. Dev.=0.8066, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9127, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

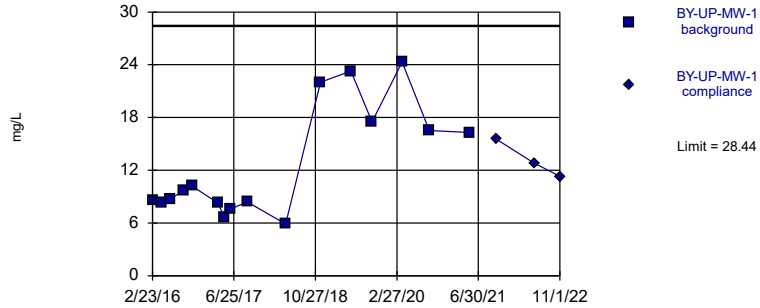


Background Data Summary: Mean=8.877, Std. Dev.=2.273, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8511, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

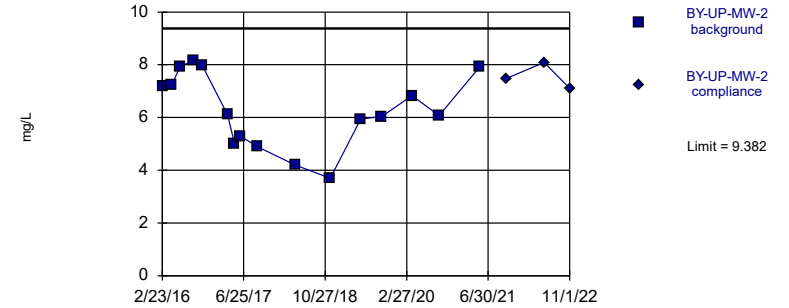


Background Data Summary (based on square root transformation): Mean=3.458, Std. Dev.=0.85, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

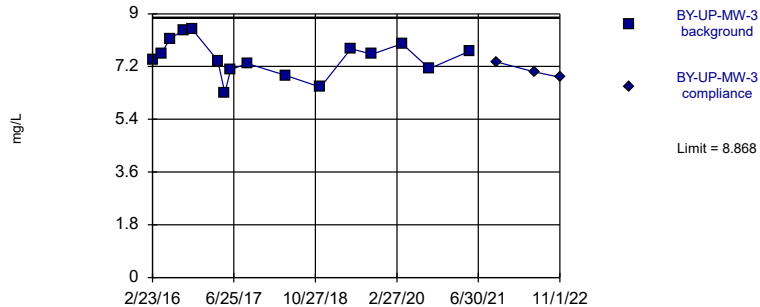


Background Data Summary: Mean=6.282, Std. Dev.=1.406, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9428, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

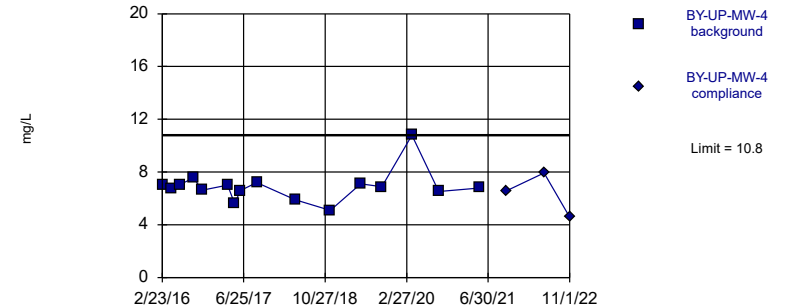


Background Data Summary: Mean=7.496, Std. Dev.=0.6224, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9756, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 1/3/2023 2:07 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.57	
4/19/2016	3.12	
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/21/2017	4.4	
5/2/2017	3.7	
6/7/2017	3.3	
9/13/2017	5.1	
5/1/2018	4	
11/26/2018	3.8	
5/29/2019	4.34	
10/2/2019	4.34	
3/31/2020	3.89	
9/9/2020	4.11	
5/12/2021	3.94	
10/19/2021		3.79
6/1/2022		3.35
11/2/2022		3.07

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	3.86	
4/18/2016	4.46	
6/7/2016	3.74	
8/30/2016	3.5	
10/18/2016	3.5	
3/21/2017	2.8	
5/2/2017	3.9	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/2/2018	3.5	
11/27/2018	3.7	
5/28/2019	3.69	
10/2/2019	3.49	
3/30/2020	3.45	
9/8/2020	6.23	
5/12/2021	5.89	
10/19/2021		4.81
5/31/2022		7.83
11/2/2022		8.44

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	6.06	
4/18/2016	6.13	
6/6/2016	5.52	
8/30/2016	5.35	
10/18/2016	4.55	
3/21/2017	3.5	
5/2/2017	4.8	
6/6/2017	3.6	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.5	
5/28/2019	6.26	
10/2/2019	4.13	
3/30/2020	4.95	
9/8/2020	5.71	
5/12/2021	7.77	
10/18/2021		10
5/31/2022		7.22
11/2/2022		6.58

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	4.08	
4/18/2016	4.14	
6/6/2016	4.09	
8/30/2016	4.6	
10/18/2016	8.32	
3/21/2017	5.6	
5/2/2017	4.8	
6/7/2017	6.3	
9/12/2017	8.5	
5/1/2018	4	
11/27/2018	4.3	
5/28/2019	4.63	
10/2/2019	5.02	
3/30/2020	10.5	
9/8/2020	8.74	
5/12/2021	17.2	
10/18/2021		16.8
6/1/2022		14.7
11/2/2022		22.700001

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	4.47	
4/18/2016	4.74	
6/7/2016	4.52	
8/30/2016	4.71	
10/18/2016	4.73	
3/21/2017	4.9	
5/2/2017	5.7	
6/7/2017	4.1	
9/13/2017	4.9	
5/2/2018	4.1	
11/27/2018	4.9	
5/28/2019	4.43	
10/2/2019	4.32	
3/30/2020	4.38	
9/8/2020	4.61	
5/12/2021	5.25	
10/19/2021		5.34
6/1/2022		5.38
11/2/2022		5.08

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	
9/9/2020	7.94	
5/12/2021	8.77	
10/19/2021		6.33
6/1/2022		4.29
11/2/2022		3.14

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	3.59	
4/19/2016	2.89	
6/6/2016	3.12	
8/30/2016	3.91	
10/18/2016	3.9	
3/20/2017	3.5	
5/2/2017	3.5	
6/6/2017	3.1	
9/13/2017	<2 (U*)	
5/2/2018	9.9	
11/27/2018	4.7	
5/29/2019	5.48	
10/2/2019	3.65	
3/31/2020	3.17	
9/9/2020	2.92	
5/12/2021	2.18	
10/19/2021		2.37
5/31/2022		1.93
11/1/2022		2.37 (D)

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	3.99	
4/19/2016	4.08	
6/7/2016	4.28	
8/30/2016	4.26	
10/18/2016	4.26	
3/20/2017	4.1	
5/2/2017	5	
6/6/2017	3.9	
9/13/2017	<2 (U*)	
5/1/2018	3.7	
11/27/2018	3.2	
5/29/2019	2.93	
10/2/2019	2.75	
3/31/2020	2.72	
9/9/2020	2.32	
5/11/2021	2.16	
10/19/2021		2.08
5/31/2022		2.17
11/1/2022		2.22 (D)

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	3.68	
4/19/2016	3.72	
6/7/2016	3.66	
8/30/2016	3.7	
10/18/2016	3.77	
3/20/2017	3.7	
5/2/2017	4.6	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/1/2018	4.1	
11/27/2018	3.5	
5/29/2019	3.58	
10/2/2019	3.64	
3/31/2020	3.47	
9/9/2020	3.47	
5/11/2021	3.42	
10/18/2021		3.45
5/31/2022		3.39
11/1/2022		3.09 (D)

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	3.5	
4/19/2016	3.63	
6/6/2016	3.6	
8/30/2016	3.54	
10/18/2016	3.68	
3/20/2017	4.6	
5/2/2017	3.9	
6/6/2017	3.4	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.6	
5/28/2019	3.6	
10/2/2019	3.5	
3/31/2020	3.34	
9/8/2020	3.29	
5/11/2021	3.33	
10/18/2021		3.32
5/31/2022		3.31
11/1/2022		3.3 (D)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	9.29	
4/19/2016	9.92	
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/21/2017	9	
5/2/2017	7.9	
6/7/2017	8.4	
9/13/2017	8.7	
5/1/2018	10	
11/26/2018	8.3	
5/29/2019	11.1	
10/2/2019	13.2	
3/31/2020	11.1	
9/9/2020	9.28	
5/12/2021	11	
10/19/2021		10.1
6/1/2022		11.4
11/2/2022		11.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	12.5	
4/18/2016	28.6	
6/7/2016	18.7	
8/30/2016	13.8	
10/18/2016	12.2	
3/21/2017	8.6	
5/2/2017	8	
6/6/2017	8.6	
9/13/2017	7.6	
5/2/2018	6	
11/27/2018	5.5	
5/28/2019	6.5	
10/2/2019	6.55	
3/30/2020	6.34	
9/8/2020	15.1	
5/12/2021	38.2	
10/19/2021		12.3
5/31/2022		48.7
11/2/2022		51.400002

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: Intravel PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	36.5	
4/18/2016	80.2 (O)	
6/6/2016	0.498 (J)	
8/30/2016	27.8	
10/18/2016	22.5	
3/21/2017	15	
5/2/2017	11	
6/6/2017	10	
9/12/2017	7.5	
5/1/2018	8.5	
11/26/2018	7.4	
5/28/2019	32.7	
10/2/2019	15.9	
3/30/2020	21.8	
9/8/2020	17.7	
5/12/2021	37.1	
10/18/2021		24.7
5/31/2022		38.6
11/2/2022		36.900002

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: Intravel PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	3.82	
4/18/2016	3.48	
6/6/2016	3.76	
8/30/2016	3.62	
10/18/2016	2.58	
3/21/2017	3.3 (J)	
5/2/2017	2.5 (J)	
6/7/2017	3.1 (J)	
9/12/2017	3 (J)	
5/1/2018	1.6 (J)	
11/27/2018	1.9 (J)	
5/28/2019	4.86	
10/2/2019	4.6	
3/30/2020	4.29	
9/8/2020	3.59	
5/12/2021	3.58	
10/18/2021		2.54
6/1/2022		3.4
11/2/2022		2.35

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: Intravel PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.33	
4/18/2016	3.78	
6/7/2016	4.44	
8/30/2016	4.29	
10/18/2016	4.27	
3/21/2017	3.6 (J)	
5/2/2017	2.9 (J)	
6/7/2017	2.9 (J)	
9/13/2017	3.2 (J)	
5/2/2018	2.6 (J)	
11/27/2018	2.8 (J)	
5/28/2019	4.46	
10/2/2019	4.96	
3/30/2020	4.84	
9/8/2020	4.56	
5/12/2021	4.7	
10/19/2021		4.2
6/1/2022		5.11
11/2/2022		5.34

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	
9/9/2020	10.7	
5/12/2021	12.5	
10/19/2021		12.6
6/1/2022		13
11/2/2022		12.2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021		15.5
5/31/2022		12.8
11/1/2022		11.3 (D)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: Intravel PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021		7.48
5/31/2022		8.09
11/1/2022		7.11 (D)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021		7.36
5/31/2022		7.02
11/1/2022		6.83 (D)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/3/2023 2:08 PM View: Inrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021		6.58
5/31/2022		7.94
11/1/2022		4.59 (D)

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	11/2/2022	1.69	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	11/2/2022	0.741	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.069	n/a	11/2/2022	10.9	Yes	76	1.498	0.3066	0	None	No	n/a	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-6	2.069	n/a	11/2/2022	7.78	Yes	76	1.498	0.3066	0	None	No	n/a	0.001254	Param Inter 1 of 2	
TDS (mg/L)	BY-GSA-MW-5	58	n/a	11/2/2022	115	Yes	76	n/a	n/a	9.211	n/a	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2	
TDS (mg/L)	BY-GSA-MW-6	58	n/a	11/2/2022	83.3	Yes	76	n/a	n/a	9.211	n/a	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2	

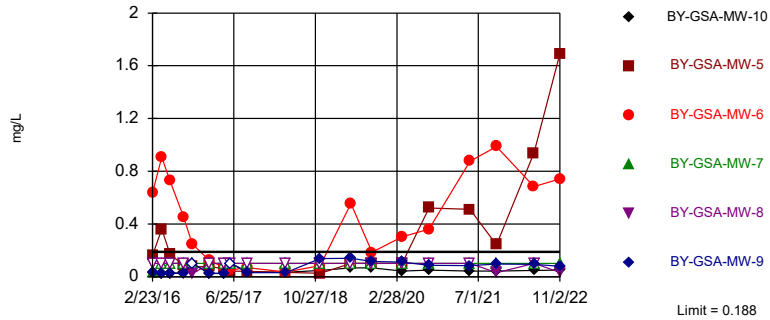
Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	11/2/2022	0.0502J	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	11/2/2022	1.69	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	11/2/2022	0.741	Yes	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	11/2/2022	0.1015ND	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	11/2/2022	0.0343J	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	11/2/2022	0.0809J	No	76	n/a	n/a	n/a	78.95	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.069	n/a	11/2/2022	1.15	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-5	2.069	n/a	11/2/2022	10.9	Yes	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-6	2.069	n/a	11/2/2022	7.78	Yes	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-7	2.069	n/a	11/2/2022	1.96	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-8	2.069	n/a	11/2/2022	1.04	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Calcium, total (mg/L)	BY-GSA-MW-9	2.069	n/a	11/2/2022	1.67	No	76	1.498	0.3066	0	None	No	0.001254	Param Inter 1 of 2	
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	11/2/2022	0.125ND	No	80	n/a	n/a	n/a	63.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	11/2/2022	4.39	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	11/2/2022	4.42	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	11/2/2022	4.84	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	11/2/2022	4.75	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	11/2/2022	3.84	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	11/2/2022	3.93	No	84	n/a	n/a	0	n/a	n/a	0.0005485	NP Inter (normality) 1 of 2	
TDS (mg/L)	BY-GSA-MW-10	58	n/a	11/2/2022	36.7	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	11/2/2022	115	Yes	76	n/a	n/a	9.211	n/a	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	11/2/2022	83.3	Yes	76	n/a	n/a	9.211	n/a	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	11/2/2022	56	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	11/2/2022	34	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	11/2/2022	34.7	No	76	n/a	n/a	n/a	9.211	n/a	n/a	0.0003342	NP Inter (normality) 1 of 2

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Non-parametric

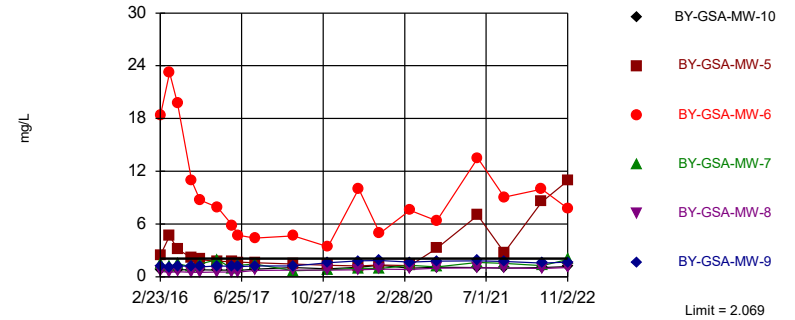


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 76 background values. 78.95% NDs. Annual per-constituent alpha = 0.004003. Individual comparison alpha = 0.0003342 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 1/3/2023 2:09 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Parametric

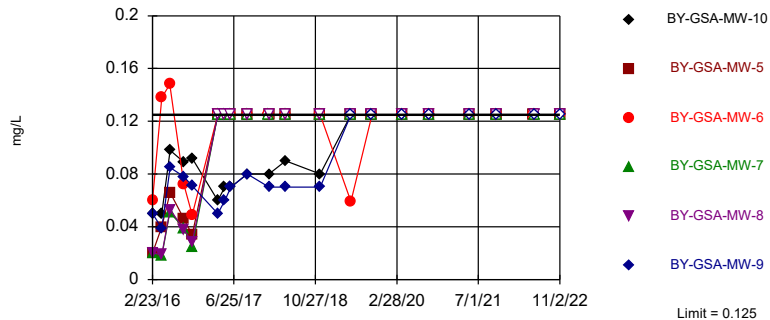


Background Data Summary: Mean=1.498, Std. Dev.=0.3066, n=76. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9728, critical = 0.957. Kappa = 1.861 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium, total Analysis Run 1/3/2023 2:09 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Interwell Non-parametric

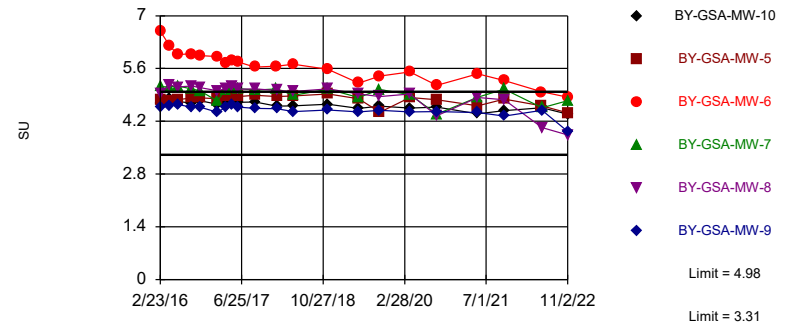


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 80 background values. 63.75% NDs. Annual per-constituent alpha = 0.00358. Individual comparison alpha = 0.0002988 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 1/3/2023 2:09 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limits

Prediction Limit
Interwell Non-parametric



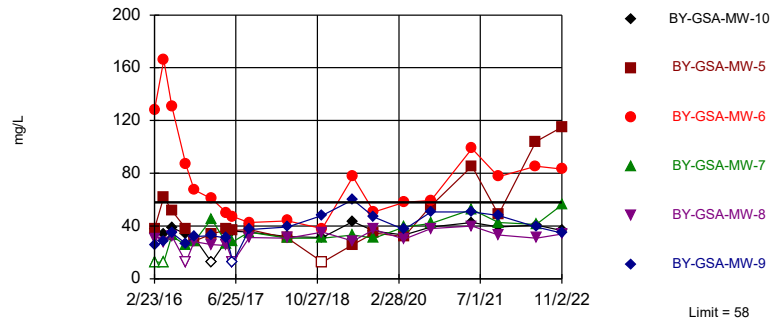
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 84 background values. Annual per-constituent alpha = 0.006572. Individual comparison alpha = 0.0005485 (1 of 2). Comparing 6 points to limit.

Constituent: pH, Field Analysis Run 1/3/2023 2:09 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 76 background values. 9.211% NDs. Annual per-constituent alpha = 0.004003. Individual comparison alpha = 0.0003342 (1 of 2). Comparing 6 points to limit.

Constituent: TDS Analysis Run 1/3/2023 2:09 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5
2/23/2016	0.0294 (J)	<0.1015	0.0297 (J)	0.0314 (J)	0.0212 (J)	0.0252 (J)	0.638	<0.1015	0.163
4/18/2016		<0.1015		<0.1015			0.908		0.361
4/19/2016	0.0257 (J)		0.0269 (J)		<0.1015	<0.1015		<0.1015	
6/6/2016				<0.1015	<0.1015		0.733		
6/7/2016	0.0257 (J)	<0.1015	0.0271 (J)			0.0202 (J)		<0.1015	0.169
8/30/2016	0.0317 (J)	<0.1015	0.0272 (J)	<0.1015	<0.1015	<0.1015	0.448	<0.1015	0.0858 (J)
10/18/2016	<0.1015	0.0207 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.249	<0.1015	0.0778 (J)
1/30/2017	0.0243 (J)		0.0269 (J)	<0.1015					
1/31/2017		<0.1015			<0.1015	<0.1015	0.121	<0.1015	0.077 (J)
5/2/2017	0.0259 (J)	<0.1015	0.027 (J)	<0.1015	<0.1015	<0.1015	0.0695 (J)	<0.1015	0.0602 (J)
6/6/2017					<0.1015	<0.1015	0.0509 (J)	<0.1015	0.0442 (J)
6/7/2017	<0.1015	<0.1015	<0.1015	<0.1015					
9/12/2017				<0.1015			0.0709 (J)		
9/13/2017	0.0394 (J)	<0.1015	0.032 (J)		<0.1015	<0.1015		<0.1015	0.0411 (J)
5/1/2018	0.0338 (J)		0.0302 (J)	<0.1015		<0.1015	0.0365 (J)	<0.1015	
5/2/2018		<0.1015			0.0362 (J)				0.0334 (J)
11/26/2018	0.0484 (J)		0.139				0.0836 (J)		
11/27/2018		<0.1015		<0.1015	0.11	0.0207 (J)		<0.1015	0.0265 (J)
5/28/2019		<0.1015		<0.1015			0.556		<0.1015
5/29/2019	0.0669 (J)		0.141		0.188	<0.1015		<0.1015	
10/2/2019	0.0671 (J)	<0.1015	0.116	<0.1015	0.097 (J)	<0.1015	0.186	<0.1015	<0.1015
3/30/2020		<0.1015		<0.1015			0.304		<0.1015
3/31/2020	0.0442 (J)		0.112		0.157	<0.1015		<0.1015	
9/8/2020		<0.1015		<0.1015			0.362		0.521
9/9/2020	0.0509 (J)		0.0873 (J)		0.0999 (J)	<0.1015		<0.1015	
5/11/2021						<0.1015		<0.1015	
5/12/2021	0.0423 (J)	<0.1015	0.0834 (J)	<0.1015	0.0841 (J)		0.876		0.511
10/18/2021				<0.1015			0.987	<0.1015	
10/19/2021	0.0444 (J)	0.0303 (J)	0.0966 (J)		0.0708 (J)	<0.1015			0.243
5/31/2022					0.0567 (J)	<0.1015	0.685	<0.1015	0.939
6/1/2022	0.0493 (J)	<0.1015	0.0933 (J)	<0.1015					
11/1/2022					0.0501 (JD)	<0.1015 (D)		<0.1015 (D)	
11/2/2022	0.0502 (J)	0.0343 (J)	0.0809 (J)	<0.1015			0.741		1.69

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	0.0257 (J)
4/18/2016	
4/19/2016	<0.1015
6/6/2016	<0.1015
6/7/2016	
8/30/2016	<0.1015
10/18/2016	0.022 (J)
1/30/2017	
1/31/2017	<0.1015
5/2/2017	<0.1015
6/6/2017	<0.1015
6/7/2017	
9/12/2017	<0.1015
9/13/2017	
5/1/2018	<0.1015
5/2/2018	
11/26/2018	<0.1015
11/27/2018	
5/28/2019	<0.1015
5/29/2019	
10/2/2019	<0.1015
3/30/2020	
3/31/2020	<0.1015
9/8/2020	<0.1015
9/9/2020	
5/11/2021	<0.1015
5/12/2021	
10/18/2021	<0.1015
10/19/2021	
5/31/2022	<0.1015
6/1/2022	
11/1/2022	<0.1015 (D)
11/2/2022	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5
2/23/2016	0.795	0.618	1.15	1.4	1.28	1.11	18.3	1.77	2.42
4/18/2016		0.505		1.2			23.2		4.65
4/19/2016	0.761		1.04		1.19	1.09		1.68	
6/6/2016				1.48	1.19		19.7		
6/7/2016	0.799	0.587	1.22			1.16		1.68	3.1
8/30/2016	0.788	0.495 (J)	1.18	1.13	1.11	1.08	10.9	1.62	2.19
10/18/2016	0.788	0.503	1.12	1.45	1.04	1.03	8.74	1.53	1.97
1/30/2017	0.755		1.23	1.95					
1/31/2017		0.554			1.19	1.23	7.89	1.65	1.73
5/2/2017	0.763	0.548	1.2	0.908	1.05	1.28	5.81	1.58	1.74
6/6/2017					0.978	1.25	4.72	1.55	1.66
6/7/2017	0.706	0.545	1.17	1.29					
9/12/2017				1.44			4.39		
9/13/2017	0.873	0.723	1.25		1.14	1.6		1.71	1.61
5/1/2018	1.05		1.25	0.695		1.58	4.66	1.76	
5/2/2018		0.751			1.64				1.44
11/26/2018	0.922		1.61				3.41		
11/27/2018		0.743		0.798	2.01	1.49		1.69	1.3
5/28/2019		0.789		0.973			10		1.25
5/29/2019	1.07		1.8		1.85	1.59		1.74	
10/2/2019	1.32	0.882	1.85	0.929	1.55	1.7	4.94	1.86	1.33
3/30/2020		0.841		1.32			7.56		1.26
3/31/2020	0.98		1.67		1.96	1.43		1.92	
9/8/2020		0.981		1.12			6.38		3.24
9/9/2020	1.1		1.79		1.43	1.5		1.97	
5/11/2021						1.39		2.06	
5/12/2021	1.06	1.02	1.82	1.63	1.34		13.5		7
10/18/2021				1.53			9.06	2.1	
10/19/2021	0.977	1.01	1.75		1.17	1.32			2.75
5/31/2022					1.14	1.24	9.98	1.95	8.52
6/1/2022	1.04	0.94	1.55	1.27					
11/1/2022					1.01 (D)	1.23 (D)		1.94 (D)	
11/2/2022	1.15	1.04	1.67	1.96			7.78		10.9

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	1.42
4/18/2016	
4/19/2016	1.31
6/6/2016	1.35
6/7/2016	
8/30/2016	1.31
10/18/2016	1.22
1/30/2017	
1/31/2017	1.36
5/2/2017	1.24
6/6/2017	1.28
6/7/2017	
9/12/2017	1.47
9/13/2017	
5/1/2018	1.47
5/2/2018	
11/26/2018	1.52
11/27/2018	
5/28/2019	1.6
5/29/2019	
10/2/2019	1.7
3/30/2020	
3/31/2020	1.78
9/8/2020	1.94
9/9/2020	
5/11/2021	1.93
5/12/2021	
10/18/2021	2.01
10/19/2021	
5/31/2022	2.02
6/1/2022	
11/1/2022	1.59 (D)
11/2/2022	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-UP-MW-1 (bg)	BY-GSA-MW-7	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)
2/23/2016	0.05 (J)	0.02 (J)	0.03 (J)	0.02 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)	0.02 (J)
4/18/2016		0.019 (J)		0.018 (J)		0.138 (J)		0.04 (J)	
4/19/2016	0.05 (J)		0.023 (J)		0.021 (J)		0.016 (J)		0.015 (J)
6/6/2016			0.062 (J)	0.051 (J)		0.148 (J)			0.05 (J)
6/7/2016	0.098 (J)	0.053 (J)			0.06 (J)		0.052 (J)	0.066 (J)	
8/30/2016	0.089 (J)	0.038 (J)	0.053 (J)	0.039 (J)	0.05 (J)	0.072 (J)	0.038 (J)	0.046 (J)	0.036 (J)
10/18/2016	0.092 (J)	0.028 (J)	0.042 (J)	0.025 (J)	0.04 (J)	0.049 (J)	0.03 (J)	0.034 (J)	0.025 (J)
3/20/2017			<0.125		<0.125		<0.125		<0.125
3/21/2017	0.06 (J)	<0.125		<0.125		<0.125		<0.125	
5/2/2017	0.07 (J)	<0.125	0.04 (J)	<0.125	0.04 (J)	<0.125	<0.125	<0.125	<0.125
6/6/2017			<0.125		0.04 (J)	<0.125	<0.125	<0.125	<0.125
6/7/2017	0.07 (J)	<0.125		<0.125					
9/12/2017				<0.125		<0.125			<0.125
9/13/2017	0.08 (J)	<0.125	0.04 (J)		0.043 (J)		<0.125	<0.125	
1/22/2018				<0.125		<0.125			
1/23/2018	0.08 (J)		<0.125		0.04 (J)		<0.125		<0.125
1/24/2018		<0.125						<0.125	
5/1/2018	0.09 (J)			<0.125	0.04 (J)	<0.125	<0.125		<0.125
5/2/2018		<0.125	0.04 (J)					<0.125	
11/26/2018	0.08 (J)					<0.125			<0.125
11/27/2018		<0.125	<0.125	<0.125	<0.125		<0.125	<0.125	
5/28/2019		<0.125		<0.125		0.0591 (J)		<0.125	<0.125
5/29/2019	<0.125		0.0502 (J)		<0.125		<0.125		
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125		<0.125		<0.125		<0.125	
3/31/2020	<0.125		<0.125		<0.125		<0.125		<0.125
9/8/2020		<0.125		<0.125		<0.125		<0.125	<0.125
9/9/2020	<0.125		<0.125		<0.125		<0.125		<0.125
5/11/2021					<0.125		<0.125		<0.125
5/12/2021	<0.125	<0.125	<0.125	<0.125		<0.125		<0.125	
10/18/2021				<0.125		<0.125	<0.125		<0.125
10/19/2021	<0.125	<0.125	<0.125		<0.125			<0.125	
5/31/2022			<0.125		<0.125	<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125	<0.125		<0.125					
11/1/2022			<0.125 (D)		<0.125 (D)		<0.125 (D)		<0.125 (D)
11/2/2022	<0.125	<0.125		<0.125		<0.125		<0.125	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9
2/23/2016	0.05 (J)
4/18/2016	
4/19/2016	0.039 (J)
6/6/2016	
6/7/2016	0.085 (J)
8/30/2016	0.078 (J)
10/18/2016	0.071 (J)
3/20/2017	
3/21/2017	0.05 (J)
5/2/2017	0.06 (J)
6/6/2017	
6/7/2017	0.07 (J)
9/12/2017	
9/13/2017	0.08 (J)
1/22/2018	
1/23/2018	0.07 (J)
1/24/2018	
5/1/2018	0.07 (J)
5/2/2018	
11/26/2018	0.07 (J)
11/27/2018	
5/28/2019	
5/29/2019	<0.125
10/2/2019	<0.125
3/30/2020	
3/31/2020	<0.125
9/8/2020	
9/9/2020	<0.125
5/11/2021	
5/12/2021	<0.125
10/18/2021	
10/19/2021	<0.125
5/31/2022	
6/1/2022	<0.125
11/1/2022	
11/2/2022	<0.125

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 1/3/2023 2:10 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-UP-MW-1 (bg)	BY-GSA-MW-7	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)
2/23/2016	4.67	4.92	4.62	5.12	4.79	6.59	4.96	4.76	4.74
4/18/2016		5.16		5.11		6.21		4.75	
4/19/2016	4.79		4.74		4.84		4.94		4.86
6/6/2016			4.65	5.14		5.97			4.88
6/7/2016	4.73	5.11			4.81		4.96	4.77	
8/30/2016	4.68	5.14	4.64	5.06	4.76	5.99	4.92	4.82	4.91
10/18/2016	4.75	5.09	4.74	5.01	4.84	5.94	4.98	4.82	4.95
1/30/2017	4.65			4.74					
1/31/2017		5.01	4.54		4.6	5.92	4.74	4.8	4.71
3/20/2017			4.67		4.71		4.9		4.83
3/21/2017	4.68	5.07		5.04		5.74		4.86	
5/2/2017	4.75	5.13	4.79	5.08	4.8	5.82	4.98	4.89	4.93
6/6/2017			4.76		4.72	5.77	4.94	4.86	4.9
6/7/2017	4.7	5.05		5.07					
9/12/2017				5.03		5.64			4.82
9/13/2017	4.71	5.06	4.81		4.71		4.93	4.89	
1/22/2018				5.06		5.66			
1/23/2018	4.6		4.79		4.67		4.91		4.85
1/24/2018		5.02						4.86	
5/1/2018	4.61			4.89	4.61	5.71	4.87		4.8
5/2/2018		4.99	4.62					4.87	
11/26/2018	4.65					5.58			4.88
11/27/2018		5.06	4.73	5.05	4.72		4.94	4.92	
5/28/2019		4.92		4.83		5.21		4.8	4.73
5/29/2019	4.54		4.65		4.58		4.8		
10/2/2019	4.6	4.86	4.57	5.04	4.43	5.4	4.52	4.44	4.67
3/30/2020		4.92		4.91		5.51		4.83	
3/31/2020	4.55		4.64		4.6		4.4		4.51
9/8/2020		4.35		4.39		5.15		4.77	4.75
9/9/2020	4.58		4.65		4.67		4.76		
5/11/2021					4.29		4.53		4.67
5/12/2021	4.4	4.83	4.74	4.84		5.46		4.61	
10/18/2021				5.05		5.28	4.55		4.38
10/19/2021	4.48	4.77	4.67		4.6			4.79	
5/31/2022			3.89		3.31	4.98	3.54	4.61	3.97
6/1/2022	4.56	4.03		4.56					
11/1/2022			4.6 (D)		4.42 (D)		4.12 (D)		4.74 (D)
11/2/2022	4.39	3.84		4.75		4.84		4.42	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 1/3/2023 2:10 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9
2/23/2016	4.56
4/18/2016	
4/19/2016	4.62
6/6/2016	
6/7/2016	4.64
8/30/2016	4.58
10/18/2016	4.58
1/30/2017	4.44
1/31/2017	
3/20/2017	
3/21/2017	4.57
5/2/2017	4.64
6/6/2017	
6/7/2017	4.58
9/12/2017	
9/13/2017	4.54
1/22/2018	
1/23/2018	4.53
1/24/2018	
5/1/2018	4.46
5/2/2018	
11/26/2018	4.5
11/27/2018	
5/28/2019	
5/29/2019	4.45
10/2/2019	4.49
3/30/2020	
3/31/2020	4.45
9/8/2020	
9/9/2020	4.46
5/11/2021	
5/12/2021	4.43
10/18/2021	
10/19/2021	4.34
5/31/2022	
6/1/2022	4.49
11/1/2022	
11/2/2022	3.93

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5
2/23/2016	37.3	30	25.3	<25	26.7	30.7	128	40	38
4/18/2016		27.3		<25			166		62
4/19/2016	34		28		<25	<25		32	
6/6/2016				32.7	32.7		131		
6/7/2016	38.7	32	34.7			35.3		38.7	51.3
8/30/2016	34	<25	26.7	25.3	33.3	27.3	86.7	31.3	38
10/18/2016	31.3	28	32	28	27.3	<25	67.3	26.7	28.7
1/30/2017	<25		32.7	45.3					
1/31/2017		26			32	32.7	60.7	30	34
5/2/2017	29.3	25.3	30.7	26.7	31.3	30.7	50	30.7	37.3
6/6/2017					35.3	34.7	47.3	32.7	36.7
6/7/2017	36	<25	<25	28					
9/12/2017				35.3			42.7		
9/13/2017	35.3	31.3	37.3		36.7	39.3		38	37.3
5/1/2018	32		39.3	30.7		42	44	35.3	
5/2/2018		30.7			34				30.7
11/26/2018	31.3		48				38		
11/27/2018		35.3		30.7	50.7	31.3		36	<25
5/28/2019		28.7		33.3			77.3		26
5/29/2019	43.3		60		58	40		37.3	
10/2/2019	36	37.3	46.7	30.7	46	41.3	50.7	36.7	34.7
3/30/2020		30		39.3			58		32
3/31/2020	33.3		37.3		53.3	40		39.3	
9/8/2020		38		42			59.3		55.3
9/9/2020	39.3		50.7		42	40.7		42.7	
5/11/2021						35.3		44	
5/12/2021	42.7	40	50.7	52.7	40.7		98.7		85.3
10/18/2021				42.7			77.3	36	
10/19/2021	39.3	33.3	48		40	36			48.7
5/31/2022					32	30.7	85.3	35.3	104
6/1/2022	40.7	30.7	39.3	41.3					
11/1/2022					33.299999 (D)	36 (D)		36 (D)	
11/2/2022	36.700001	34	34.700001	56			83.300003		115

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/3/2023 2:10 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	<25
4/18/2016	
4/19/2016	<25
6/6/2016	28.7
6/7/2016	
8/30/2016	25.3
10/18/2016	<25
1/30/2017	
1/31/2017	26
5/2/2017	<25
6/6/2017	42.7
6/7/2017	
9/12/2017	26.7
9/13/2017	
5/1/2018	34.7
5/2/2018	
11/26/2018	32.7
11/27/2018	
5/28/2019	31.3
5/29/2019	
10/2/2019	36
3/30/2020	
3/31/2020	36.7
9/8/2020	39.3
9/9/2020	
5/11/2021	46.7
5/12/2021	
10/18/2021	36
10/19/2021	
5/31/2022	36.7
6/1/2022	
11/1/2022	31.299999 (D)
11/2/2022	

FIGURE F.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:13 PM

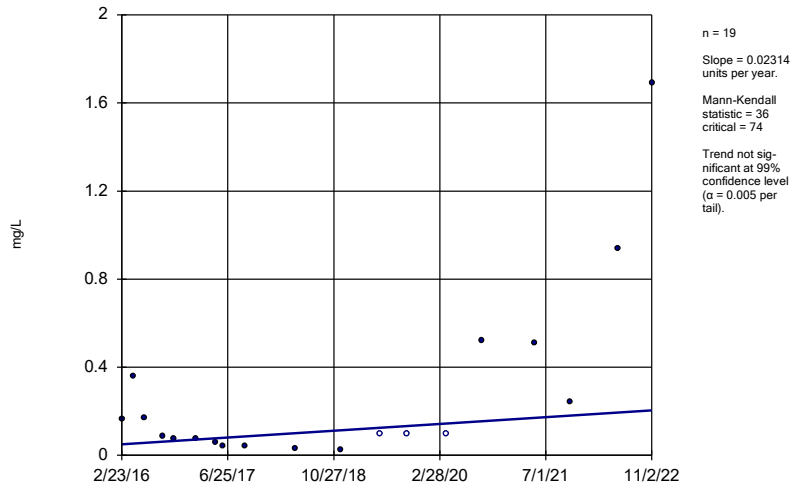
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.06981	96	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.119	115	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.725	105	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.3672	-110	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.05489	-83	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05635	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	2.028	94	74	Yes	19	21.05	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:13 PM

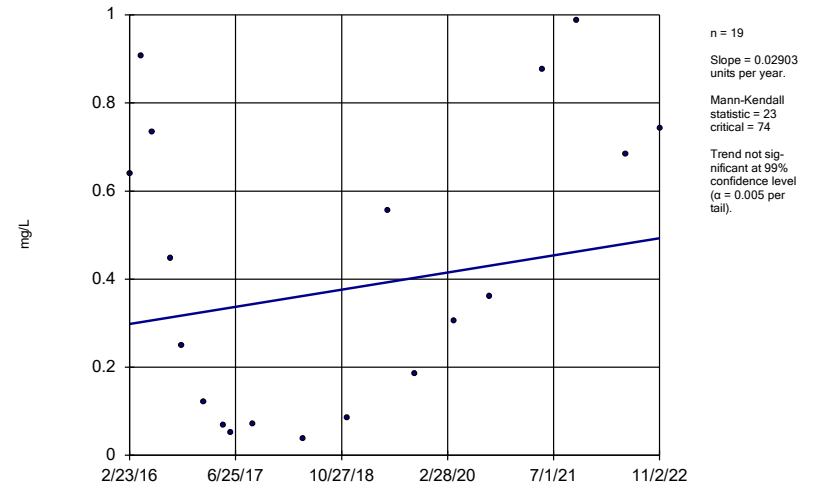
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.02314	36	74	No	19	15.79	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.02903	23	74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.00002481	-33	-74	No	19	42.11	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	29	74	No	19	84.21	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	74	No	19	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	27	74	No	19	89.47	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	-0.1003	-9	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-0.932	-37	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	0	3	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.04873	50	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.06981	96	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.119	115	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-5	0.2723	42	74	No	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.725	105	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1905	-49	-74	No	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.3672	-110	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.05489	-83	-74	Yes	19	5.263	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.05635	-85	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	-0.1902	-4	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	1.189	47	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0.0178	2	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.09149	-41	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.04825	-24	-74	No	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-5	2.744	23	74	No	19	5.263	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-3.899	-22	-74	No	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	2.576	69	74	No	19	5.263	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	1.577	62	74	No	19	10.53	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.9846	45	74	No	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	2.028	94	74	Yes	19	21.05	n/a	n/a	0.01	NP

Sen's Slope Estimator
BY-GSA-MW-5



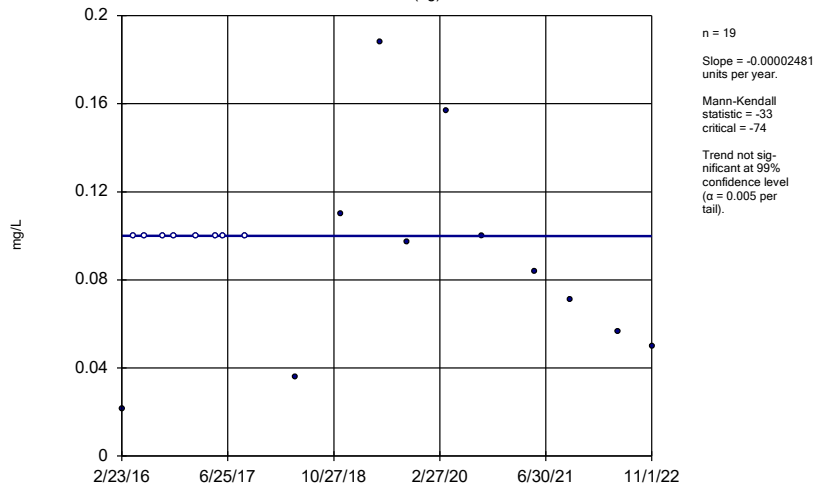
Constituent: Boron Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator
BY-GSA-MW-6



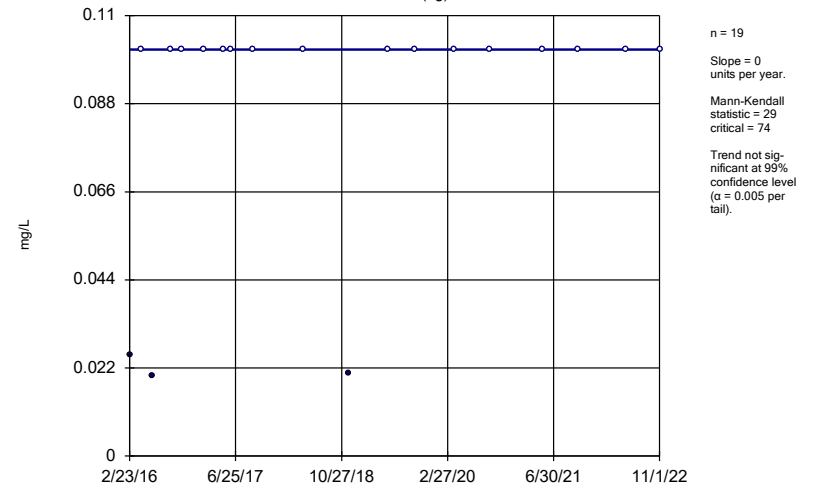
Constituent: Boron Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator
BY-UP-MW-1 (bg)



Constituent: Boron Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

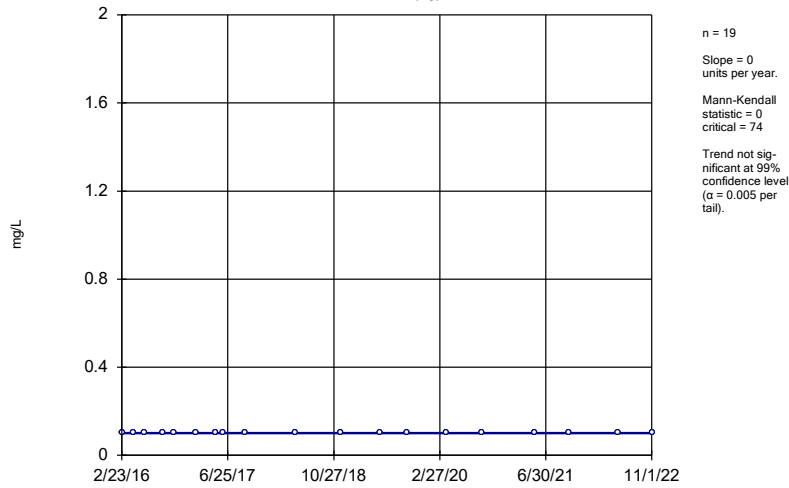
Sen's Slope Estimator
BY-UP-MW-2 (bg)



Constituent: Boron Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

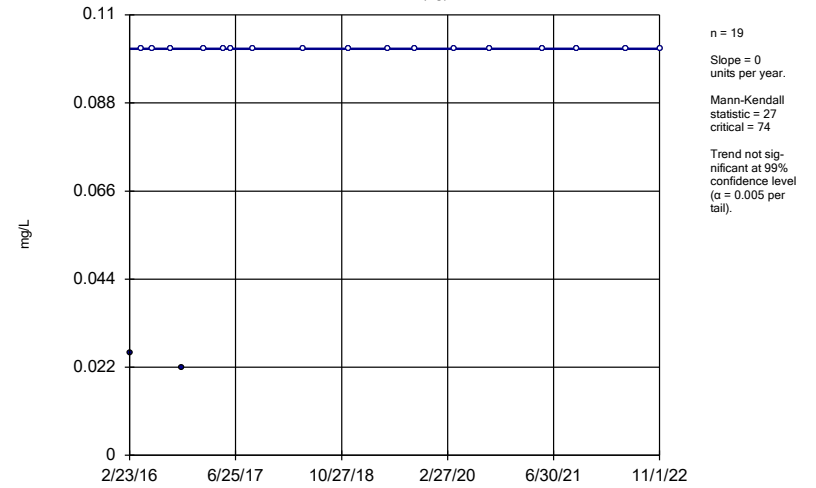
BY-UP-MW-3 (bg)



Constituent: Boron Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

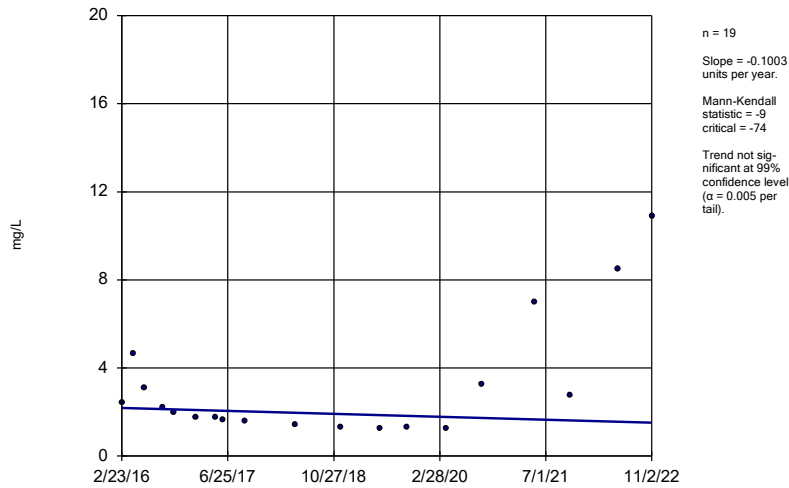
BY-UP-MW-4 (bg)



Constituent: Boron Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

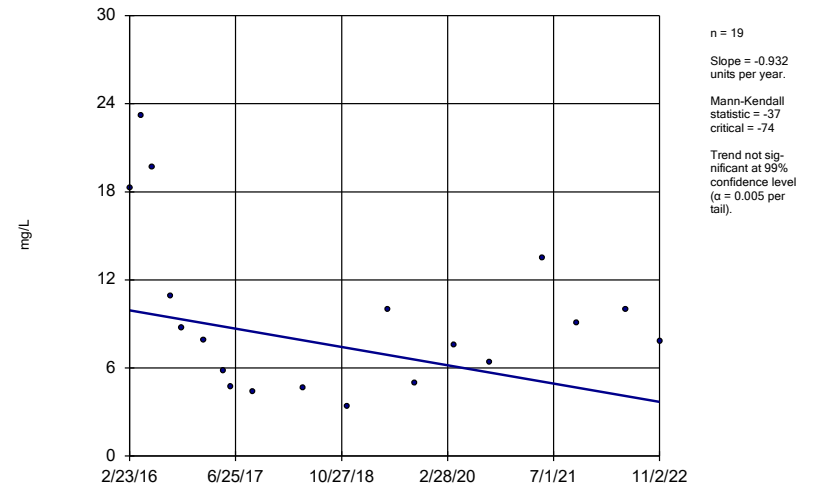
BY-GSA-MW-5



Constituent: Calcium, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

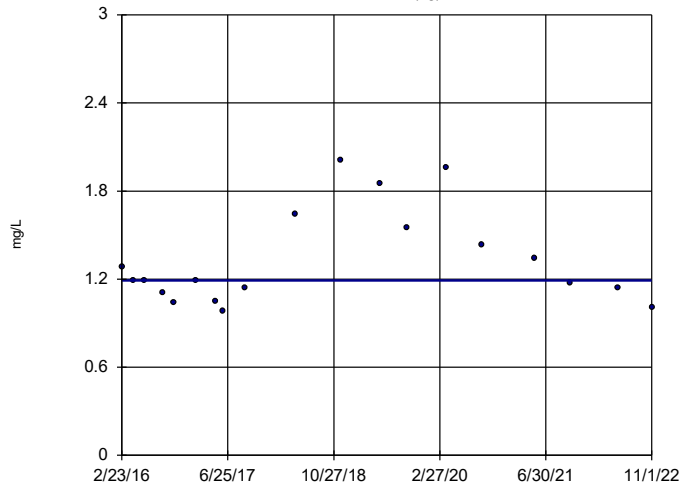
BY-GSA-MW-6



Constituent: Calcium, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

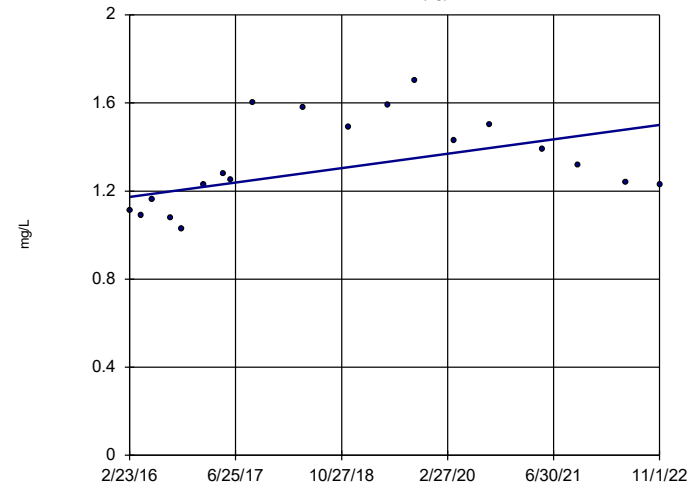


n = 19
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 3
 critical = 74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

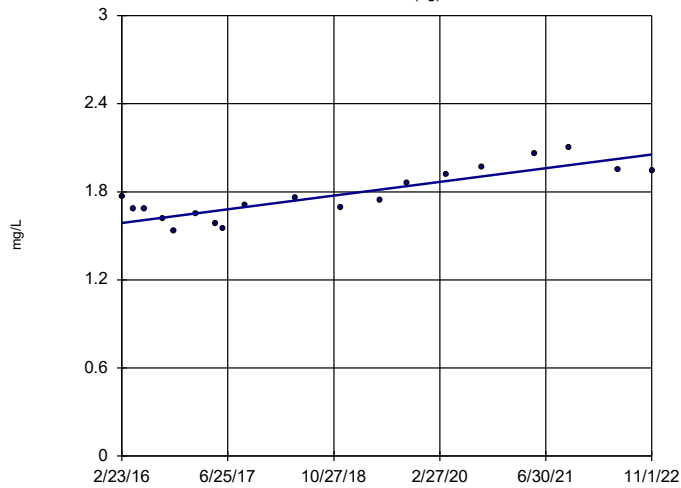


n = 19
 Slope = 0.04873
 units per year.
 Mann-Kendall
 statistic = 50
 critical = 74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

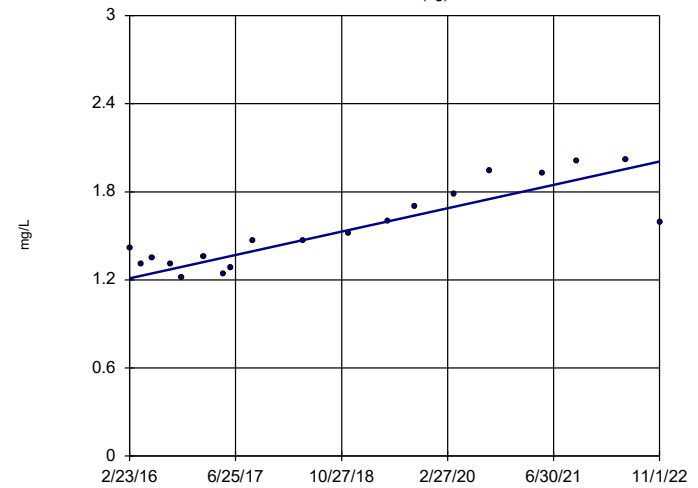


n = 19
 Slope = 0.06981
 units per year.
 Mann-Kendall
 statistic = 96
 critical = 74
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

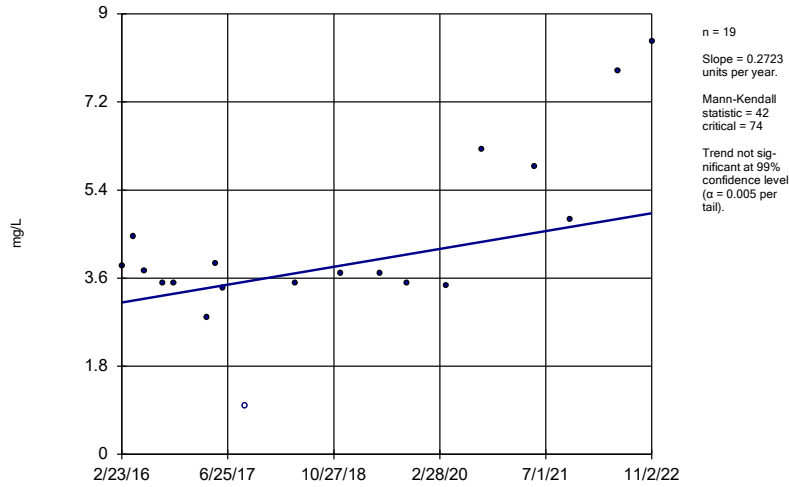


n = 19
 Slope = 0.119
 units per year.
 Mann-Kendall
 statistic = 115
 critical = 74
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

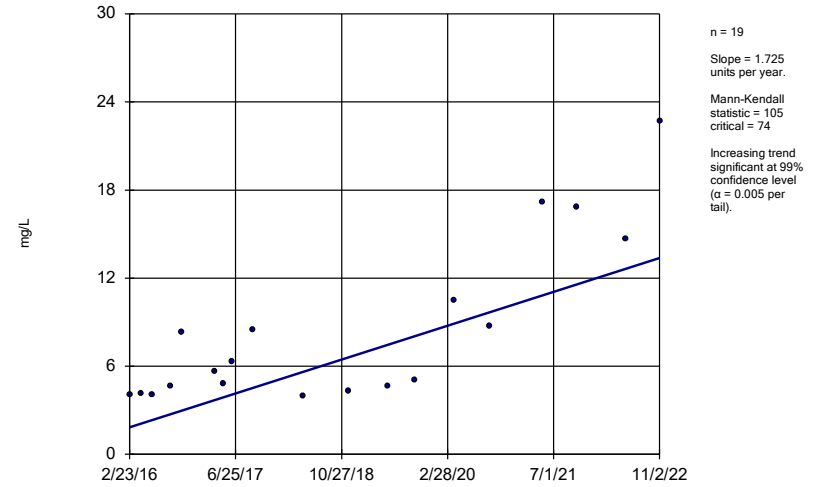
BY-GSA-MW-5



Constituent: Chloride, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

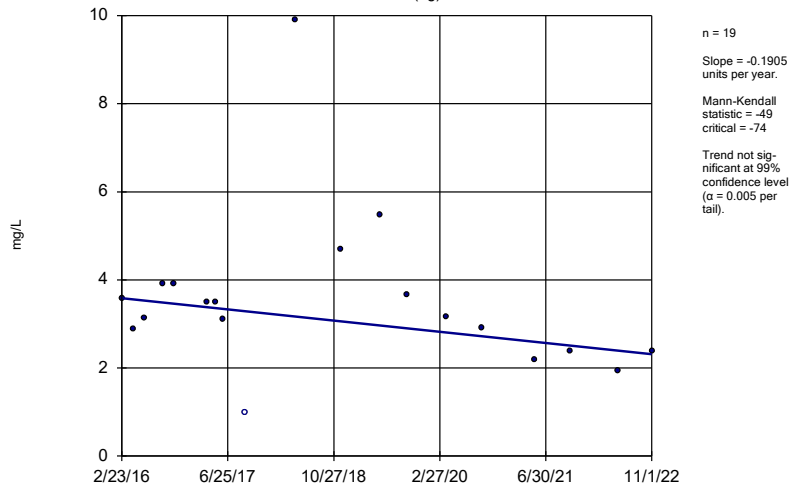
BY-GSA-MW-7



Constituent: Chloride, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

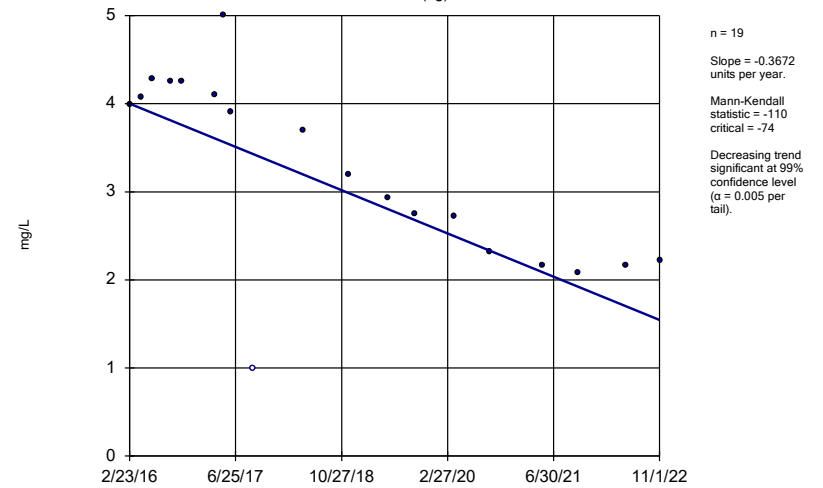
BY-UP-MW-1 (bg)



Constituent: Chloride, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

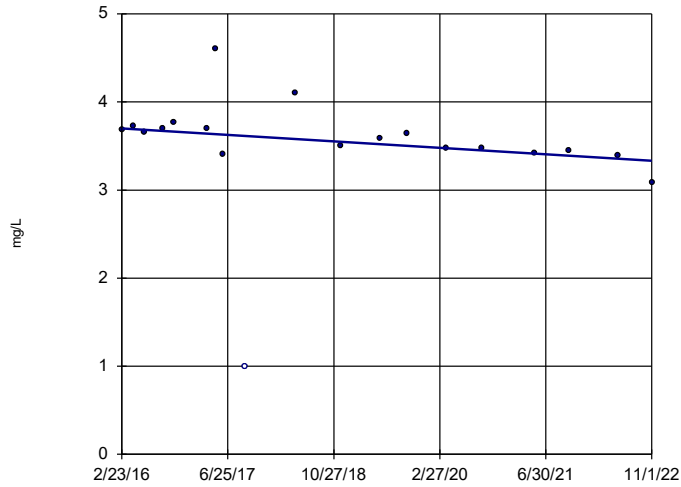
BY-UP-MW-2 (bg)



Constituent: Chloride, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

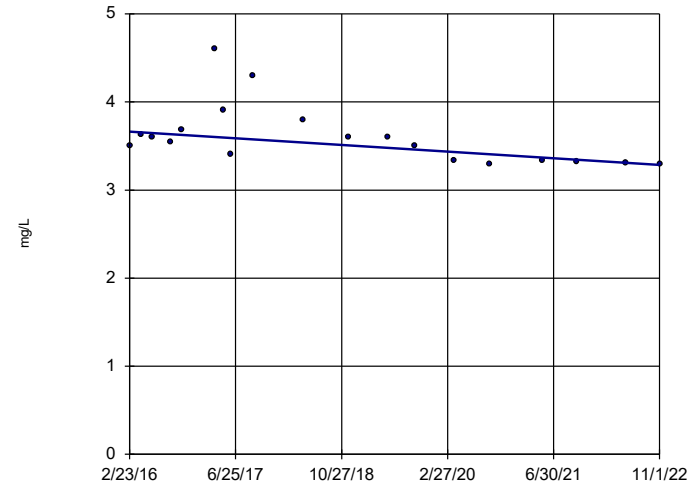


n = 19
 Slope = -0.05489
 units per year.
 Mann-Kendall
 statistic = -83
 critical = -74
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

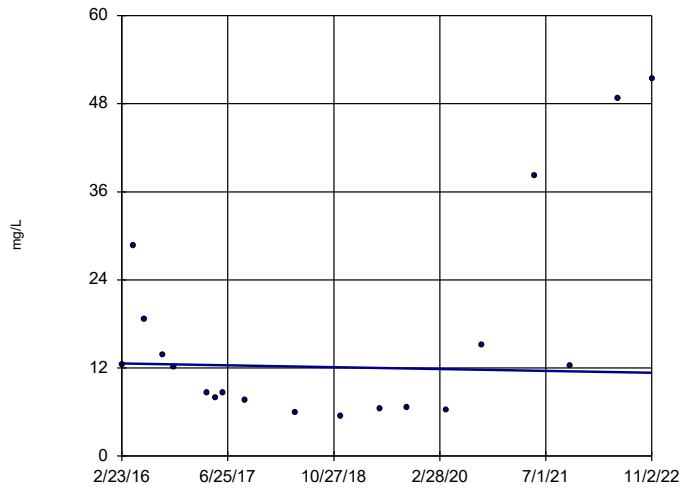


n = 19
 Slope = -0.05635
 units per year.
 Mann-Kendall
 statistic = -85
 critical = -74
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, total Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-GSA-MW-5

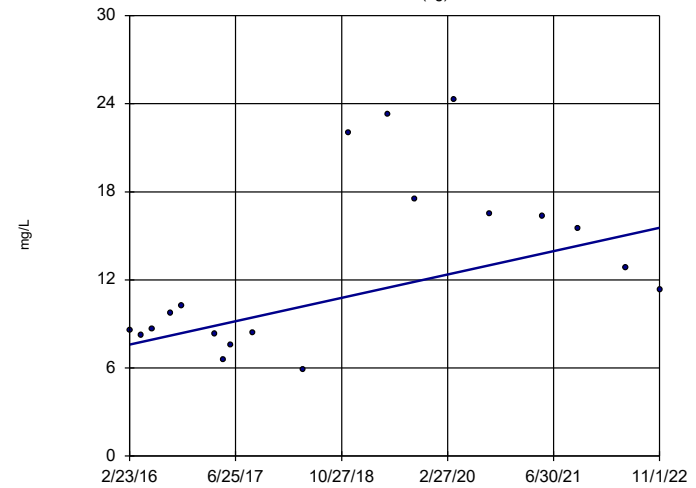


n = 19
 Slope = -0.1902
 units per year.
 Mann-Kendall
 statistic = -4
 critical = -74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

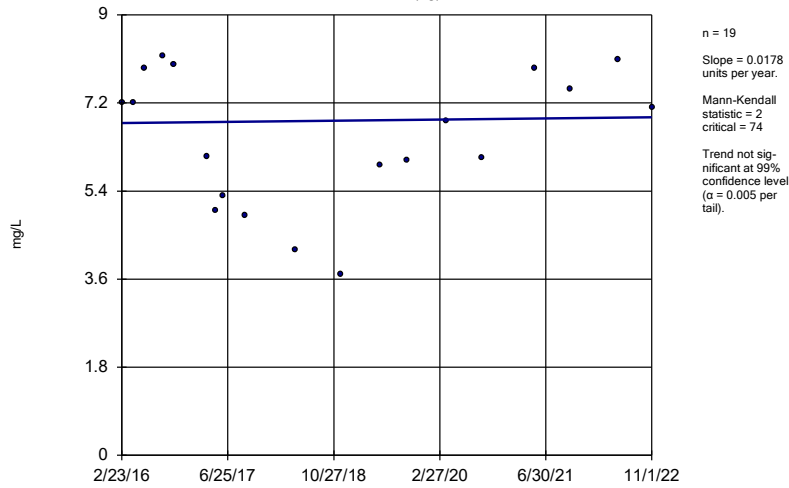


n = 19
 Slope = 1.189
 units per year.
 Mann-Kendall
 statistic = 47
 critical = 74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

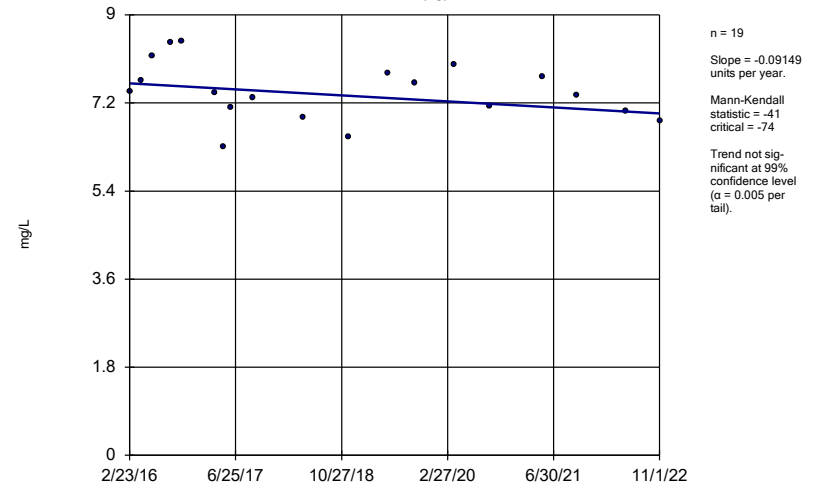
BY-UP-MW-2 (bg)



Constituent: Sulfate Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

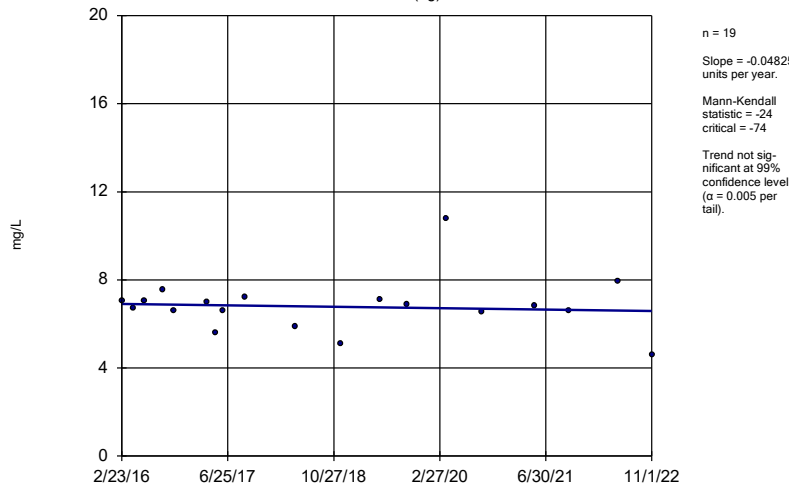
BY-UP-MW-3 (bg)



Constituent: Sulfate Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

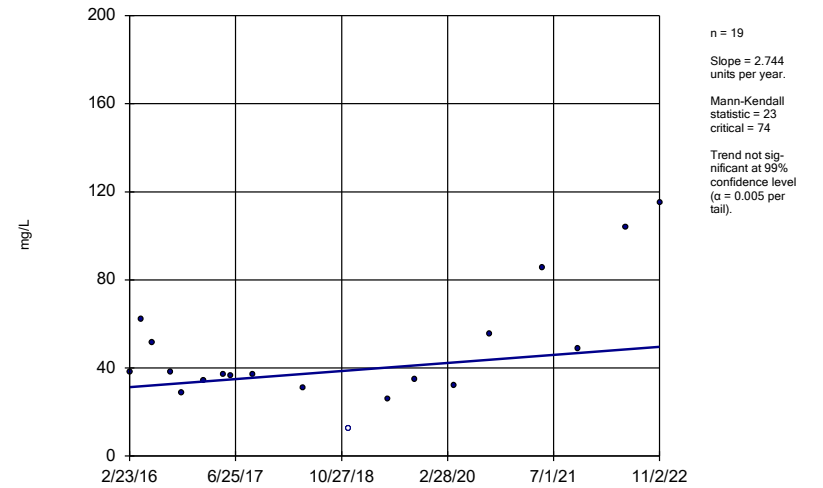
BY-UP-MW-4 (bg)



Constituent: Sulfate Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

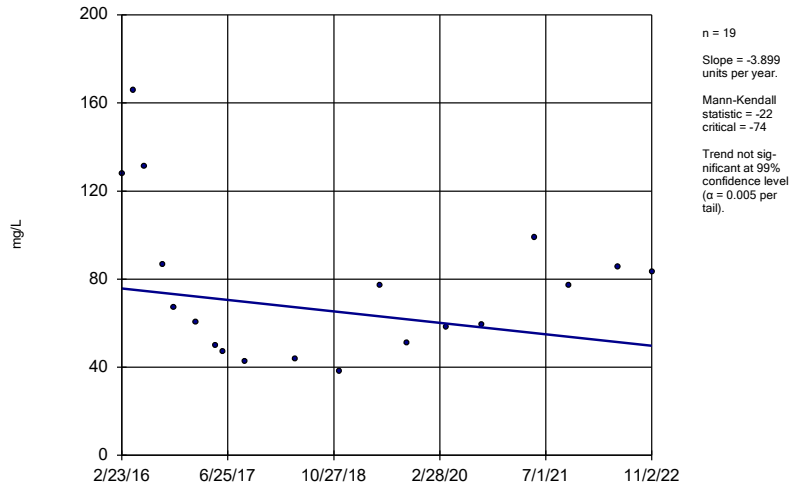
BY-GSA-MW-5



Constituent: TDS Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-GSA-MW-6

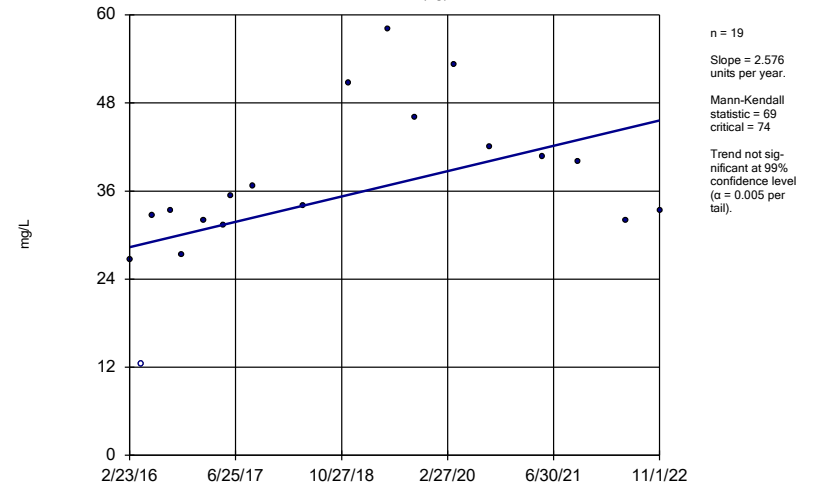


Constituent: TDS Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

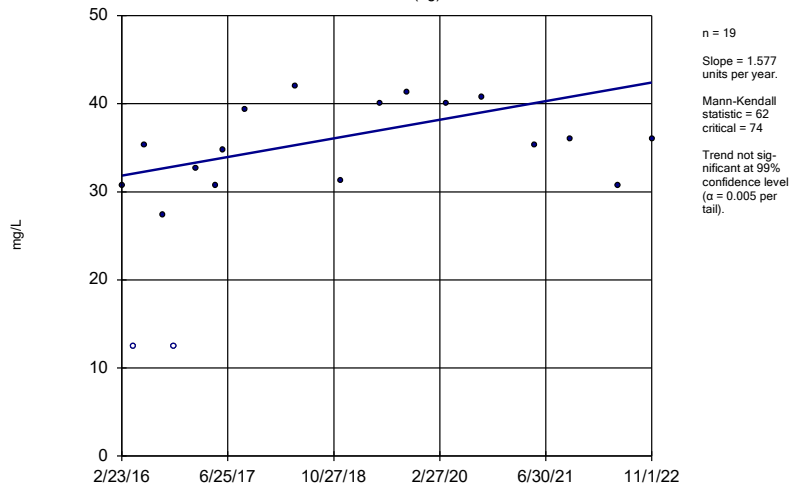
BY-UP-MW-1 (bg)



Constituent: TDS Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

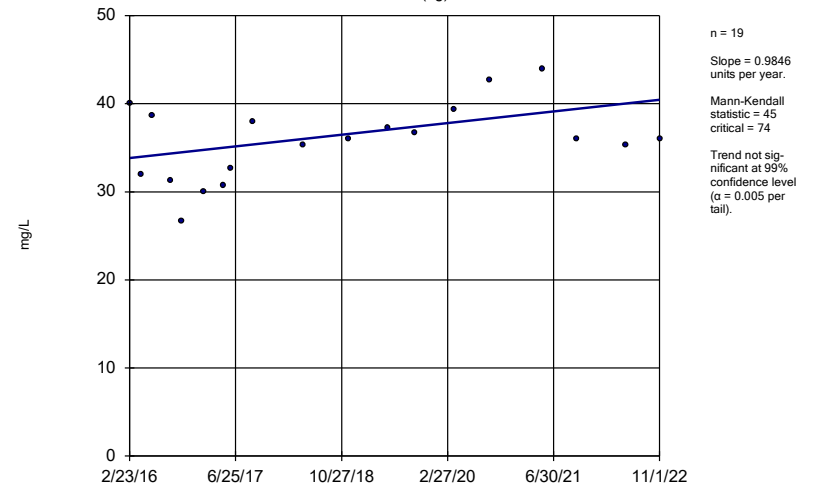
BY-UP-MW-2 (bg)



Constituent: TDS Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

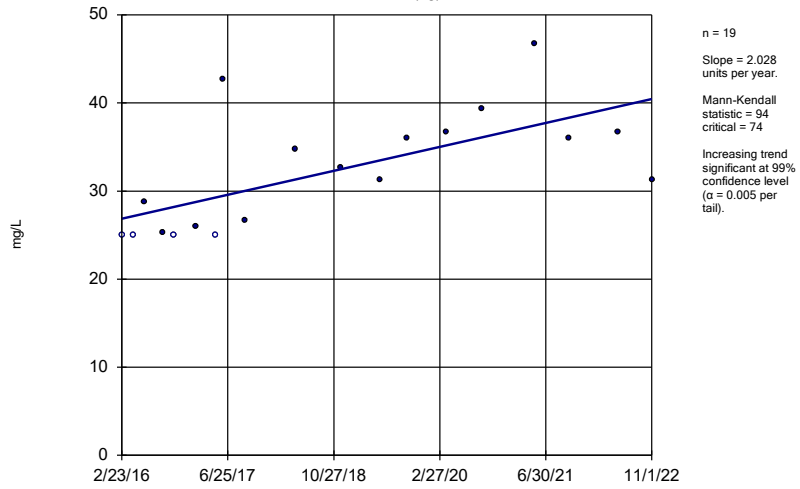
BY-UP-MW-3 (bg)



Constituent: TDS Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



Constituent: TDS Analysis Run 1/3/2023 2:12 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE G.

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

FIGURE H.

BARRY GYPSUM POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

FIGURE I.

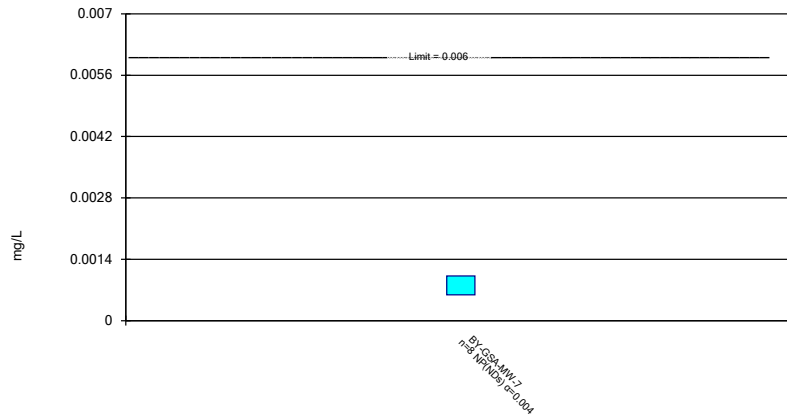
Confidence Intervals - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/3/2023, 2:17 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-7	0.00102	0.000586	0.006	No	8	0.0009657	0.0001534	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.002	0.00009	0.01	No	8	0.001062	0.001003	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.002	0.0002	0.01	No	8	0.001222	0.0008382	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.002	0.00032	0.01	No	8	0.001261	0.0008022	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-7	0.002	0.000177	0.01	No	8	0.001122	0.0009393	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-8	0.002	0.000083	0.01	No	8	0.00153	0.0008698	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.002	0.0001	0.01	No	8	0.001302	0.000963	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-PZ-11	0.002	0.000085	0.01	No	6	0.001054	0.001036	50	None	No	0.0155	NP (normality)
Barium (mg/L)	BY-GSA-MW-10	0.1347	0.1185	2	No	8	0.1266	0.007652	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.1828	0.06015	2	No	8	0.1215	0.05786	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-6	0.1954	0.1095	2	No	8	0.1525	0.04049	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.1085	0.05131	2	No	8	0.07989	0.02697	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.05151	0.04274	2	No	8	0.04713	0.004139	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1739	0.1431	2	No	8	0.1585	0.01451	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08862	0.04201	2	No	6	0.06532	0.01696	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	0.0009152	0.0001745	62.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.000408	0.004	No	8	0.0008664	0.0002334	62.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-7	0.00102	0.000464	0.004	No	8	0.0009505	0.0001966	87.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.0002	0.0000867	0.005	No	8	0.000167	0.00004508	50	None	No	0.004	NP (normality)
Cadmium (mg/L)	BY-GSA-MW-6	0.0001979	0.0001174	0.005	No	8	0.000184	0.00003694	50	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.000663	0.1	No	8	0.00538	0.00494	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	0.005326	0.003875	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-6	0.004305	0.002355	0.1	No	8	0.00333	0.0009198	12.5	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.00131	0.1	No	8	0.005714	0.004583	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.002512	0.002068	0.1	No	8	0.002288	0.0002202	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.000783	0.1	No	8	0.005444	0.004871	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003245	0.002378	0.1	No	6	0.002812	0.0003156	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002634	0.002356	0.006	No	8	0.002495	0.000131	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.00571	0.001993	0.006	No	8	0.004596	0.001614	37.5	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-6	0.006588	0.002554	0.006	No	8	0.004571	0.001903	12.5	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	0.003432	0.001688	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000437	0.006	No	8	0.00274	0.002416	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.00118	0.006	No	8	0.003227	0.001903	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	6	0.002508	0.001937	33.33	None	No	0.0155	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.176	0.8984	5	No	8	1.537	0.6027	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.521	0.3834	5	No	8	0.9311	0.6238	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.416	0.9038	5	No	8	1.66	0.7132	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.129	0.5618	5	No	8	0.7414	0.5294	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.461	0.2799	5	No	8	0.8702	0.557	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.88	5	No	8	2.158	0.4143	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.129	0.3962	5	No	6	0.7627	0.2667	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-6	0.125	0.0591	4	No	8	0.1168	0.0233	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.0001	0.015	No	8	0.002554	0.002614	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.005	0.0000994	0.015	No	8	0.002585	0.002582	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.00011	0.015	No	8	0.002572	0.002595	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.0000798	0.015	No	8	0.002546	0.002624	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.00023	0.015	No	8	0.002625	0.002539	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.000208	0.00012	0.015	No	6	0.000178	0.00003784	50	None	No	0.0155	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	0.0004825	0.0000495	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	0.0004813	0.00005303	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.0002	0.0001	0.1	No	8	0.0001875	0.00003536	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.0002	0.00008	0.1	No	8	0.000185	0.00004243	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.01	0.000778	0.05	No	8	0.005523	0.004789	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-5	0.01936	0.001381	0.05	No	8	0.0126	0.007672	37.5	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01346	0.004843	0.05	No	8	0.009153	0.004066	0	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.00102	0.00058	0.05	No	8	0.000965	0.0001556	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.00102	0.00052	0.05	No	8	0.0009575	0.0001768	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.01	0.00118	0.05	No	8	0.00581	0.004489	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.01	0.00111	0.05	No	6	0.0042	0.004496	33.33	None	No	0.0155	NP (normality)

Non-Parametric Confidence Interval

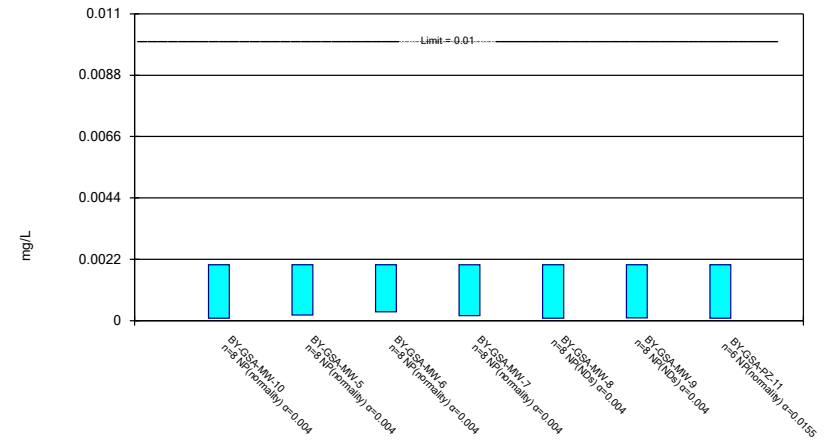
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

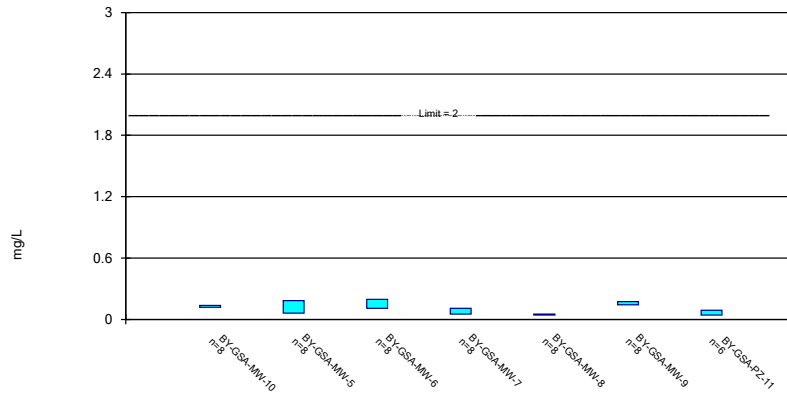
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric Confidence Interval

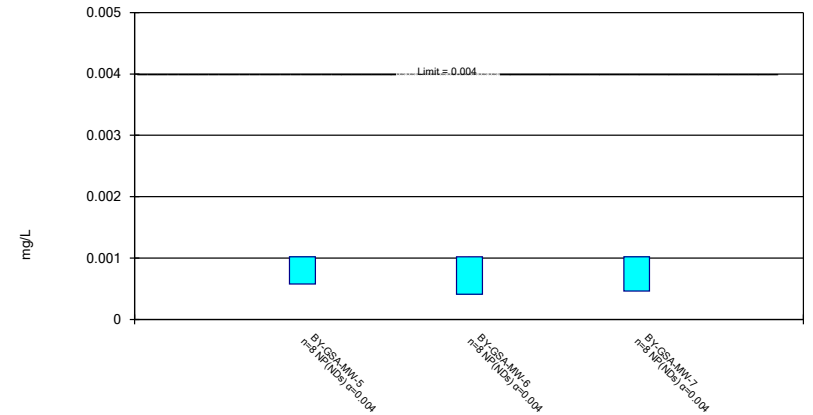
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

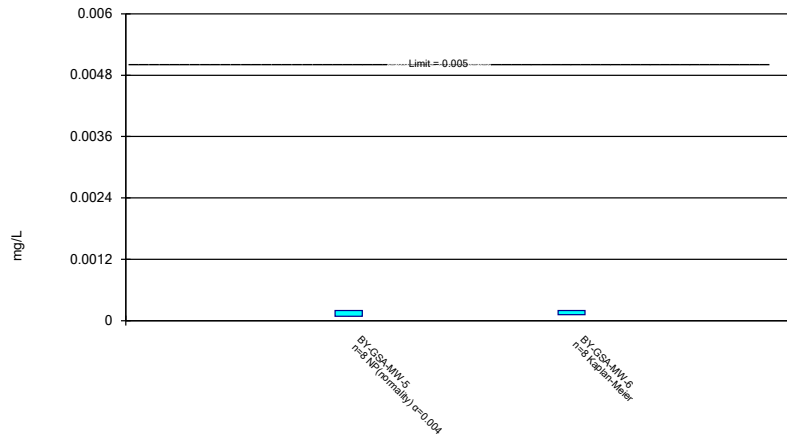
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

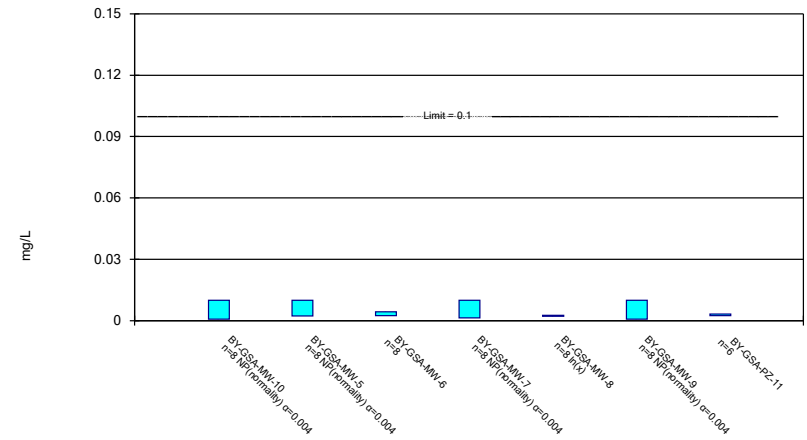
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Cadmium Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

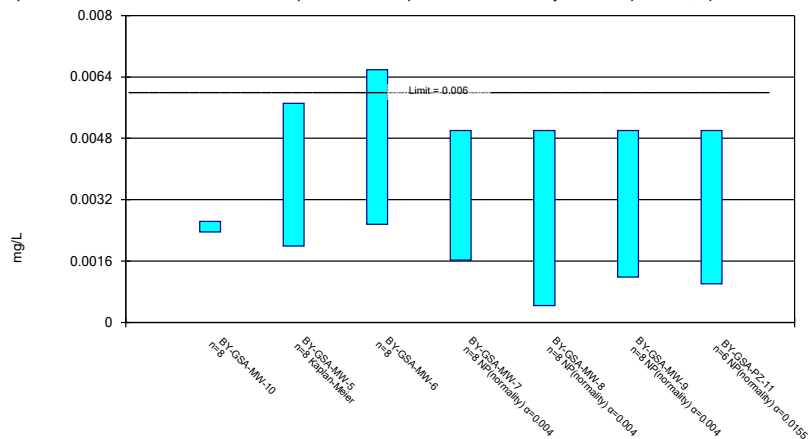
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Chromium Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

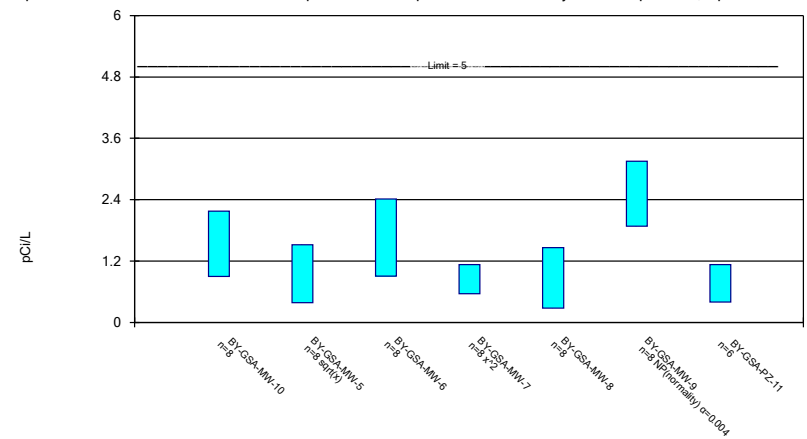
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Cobalt Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

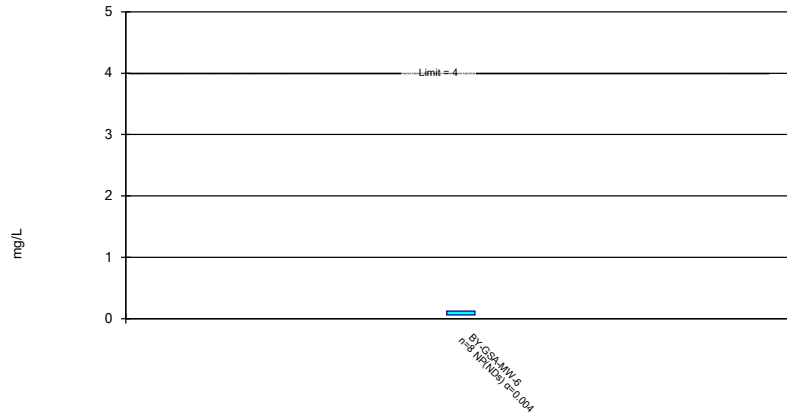
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

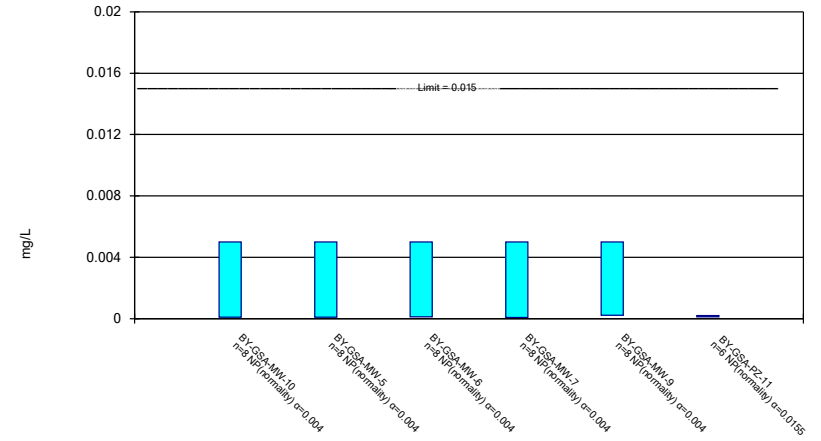
Compliance Limit is not exceeded.



Constituent: Fluoride Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

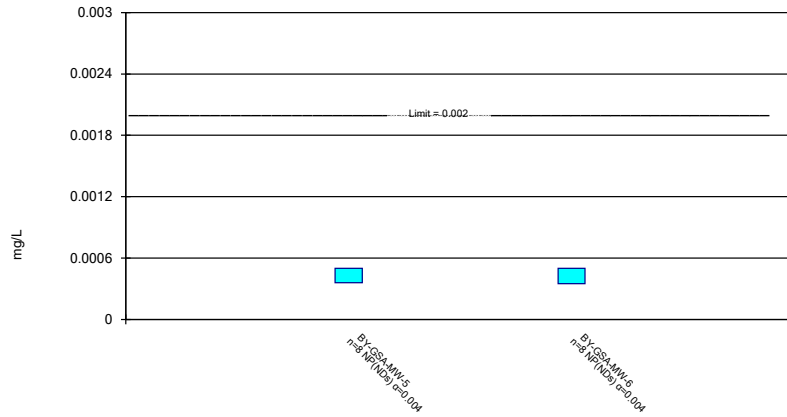
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

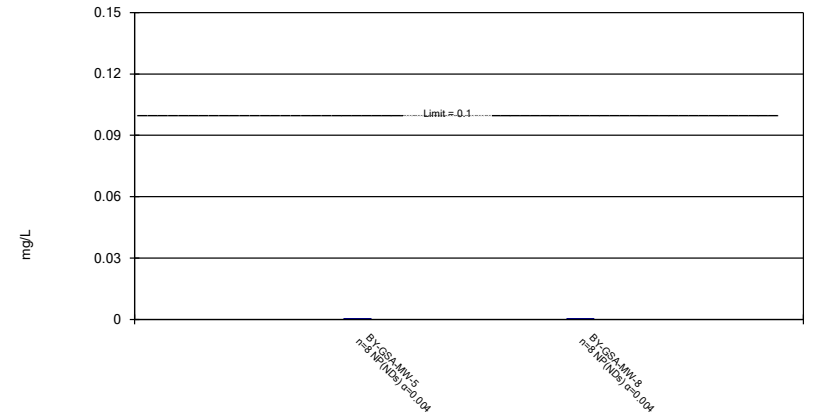
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

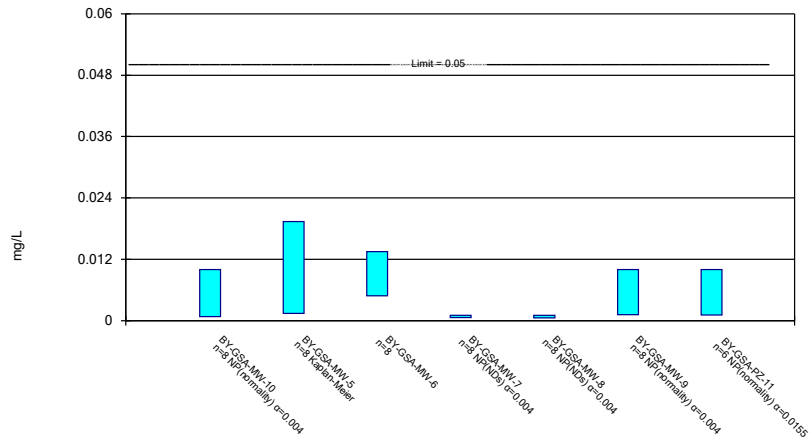
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/3/2023 2:16 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based



Constituent: Selenium Analysis Run 1/3/2023 2:16 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7
5/28/2019	<0.00102
10/2/2019	<0.00102
3/30/2020	<0.00102
9/8/2020	<0.00102
5/12/2021	<0.00102
10/18/2021	<0.00102
6/1/2022	<0.00102
11/2/2022	0.000586 (J)
Mean	0.0009657
Std. Dev.	0.0001534
Upper Lim.	0.00102
Lower Lim.	0.000586

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		<0.002	<0.002	<0.002	<0.002		
5/29/2019	<0.002					<0.002	
10/2/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
3/30/2020		<0.002	<0.002	<0.002	<0.002		
3/31/2020	<0.002					<0.002	<0.002
9/8/2020		<0.002	<0.002	<0.002	<0.002		<0.002
9/9/2020	<0.002					<0.002	
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.002	0.000173 (J)	0.000111 (J)
10/18/2021			0.00032	0.00023			
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.002	0.00013 (J)
5/31/2022		0.00053	0.00052				
6/1/2022	9E-05 (J)			0.00024	<0.002	0.0001 (J)	<0.002
11/2/2022	0.000147 (J)	0.000548	0.000429	0.000331	8.3E-05 (J)	0.000146 (J)	8.5E-05 (J)
Mean	0.001062	0.001222	0.001261	0.001122	0.00153	0.001302	0.001054
Std. Dev.	0.001003	0.0008382	0.0008022	0.0009393	0.0008698	0.000963	0.001036
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Lower Lim.	9E-05	0.0002	0.00032	0.000177	8.3E-05	0.0001	8.5E-05

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		0.0684	0.17	0.0524	0.0412		
5/29/2019	0.125					0.155	
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16	
3/30/2020		0.0718	0.142	0.0788	0.0444		
3/31/2020	0.122					0.165	0.0499
9/8/2020		0.181	0.0981	0.0615	0.0494		0.05
9/9/2020	0.125					0.17	
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184	0.0597
10/18/2021			0.146	0.0859			
10/19/2021	0.115	0.0998			0.0452	0.151	0.0599
5/31/2022		0.226	0.202				
6/1/2022	0.136			0.0803	0.0477	0.142	0.0821
11/2/2022	0.133	0.146	0.204	0.131	0.055	0.141	0.0903
Mean	0.1266	0.1215	0.1525	0.07989	0.04713	0.1585	0.06532
Std. Dev.	0.007652	0.05786	0.04049	0.02697	0.004139	0.01451	0.01696
Upper Lim.	0.1347	0.1828	0.1954	0.1085	0.05151	0.1739	0.08862
Lower Lim.	0.1185	0.06015	0.1095	0.05131	0.04274	0.1431	0.04201

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	0.000575 (J)	0.000763 (J)	0.000464 (J)
10/18/2021		<0.00102	<0.00102
10/19/2021	<0.00102		
5/31/2022	0.00071 (J)	0.00066 (J)	
6/1/2022			<0.00102
11/2/2022	0.000937 (J)	0.000408 (J)	<0.00102
Mean	0.0009152	0.0008664	0.0009505
Std. Dev.	0.0001745	0.0002334	0.0001966
Upper Lim.	0.00102	0.00102	0.00102
Lower Lim.	0.000575	0.000408	0.000464

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
5/28/2019	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002
5/12/2021	8.67E-05 (J)	0.000154 (J)
10/18/2021		0.00011 (J)
10/19/2021	0.00014 (J)	
5/31/2022	0.00012 (J)	0.00023
11/2/2022	0.000189 (J)	0.000178 (J)
Mean	0.000167	0.000184
Std. Dev.	4.508E-05	3.694E-05
Upper Lim.	0.0002	0.0001979
Lower Lim.	8.67E-05	0.0001174

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		<0.01	0.00223 (J)	<0.01	0.00209 (J)		
5/29/2019	<0.01					<0.01	
10/2/2019	<0.01	<0.01	<0.01	<0.01	0.00223 (J)	<0.01	
3/30/2020		<0.01	0.00273 (J)	<0.01	0.00275 (J)		
3/31/2020	<0.01					<0.01	0.00249 (J)
9/8/2020		0.00221 (J)	0.00237 (J)	<0.01	0.00224 (J)		0.00253 (J)
9/9/2020	<0.01					<0.01	
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)	0.00281
10/18/2021			0.00335	0.00131			
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)	0.00336
5/31/2022		0.00281	0.00412				
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104	0.00292
11/2/2022	0.000663 (J)	0.00259	0.00344	0.00144	0.00209	0.000918 (J)	0.00276
Mean	0.00538	0.005326	0.00333	0.005714	0.002288	0.005444	0.002812
Std. Dev.	0.00494	0.003875	0.0009198	0.004583	0.0002202	0.004871	0.0003156
Upper Lim.	0.01	0.01	0.004305	0.01	0.002512	0.01	0.003245
Lower Lim.	0.000663	0.00221	0.002355	0.00131	0.002068	0.000783	0.002378

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		<0.005	0.00301 (J)	<0.005	<0.005		
5/29/2019	0.00261 (J)					<0.005	
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005		
3/31/2020	0.00238 (J)					<0.005	<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005		<0.005
9/9/2020	0.00241 (J)					<0.005	
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177	0.00101
10/18/2021			0.00552	0.00164			
10/19/2021	0.00238	0.00217			0.00049	0.00156	0.00117
5/31/2022		0.00606	0.00724				
6/1/2022	0.0027			0.00162	0.00048	0.00131	0.00143
11/2/2022	0.00249	0.00667	0.00684	0.00228	0.000514	0.00118	0.00144
Mean	0.002495	0.004596	0.004571	0.003432	0.00274	0.003227	0.002508
Std. Dev.	0.000131	0.001614	0.001903	0.001688	0.002416	0.001903	0.001937
Upper Lim.	0.002634	0.00571	0.006588	0.005	0.005	0.005	0.005
Lower Lim.	0.002356	0.001993	0.002554	0.00162	0.000437	0.00118	0.00101

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		0.391 (U)	2.08	-0.428 (U)	0.311 (U)		
5/29/2019	0.548 (U)					2.2	
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2	
3/30/2020		0.525	1.54	0.939	0.397 (U)		
3/31/2020	1.01					1.88	0.968
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)		0.468 (U)
9/9/2020	1.32					2.11	
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94	0.515 (U)
10/18/2021			2.03	0.69 (U)			
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15	0.87 (U)
5/31/2022		2.31	2.22				
6/1/2022	2.27			0.99	1.37	2.05	1.13
11/2/2022	1.34	1.24	1.7	1.09	1.06	1.93	0.625 (U)
Mean	1.537	0.9311	1.66	0.7414	0.8702	2.158	0.7627
Std. Dev.	0.6027	0.6238	0.7132	0.5294	0.557	0.4143	0.2667
Upper Lim.	2.176	1.521	2.416	1.129	1.461	3.15	1.129
Lower Lim.	0.8984	0.3834	0.9038	0.5618	0.2799	1.88	0.3962

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6
5/28/2019	0.0591 (J)
10/2/2019	<0.125
3/30/2020	<0.125
9/8/2020	<0.125
5/12/2021	<0.125
10/18/2021	<0.125
5/31/2022	<0.125
11/2/2022	<0.125
Mean	0.1168
Std. Dev.	0.0233
Upper Lim.	0.125
Lower Lim.	0.0591

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		<0.005	<0.005	<0.005		
5/29/2019	<0.005				<0.005	
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	<0.005	<0.005		
3/31/2020	<0.005				<0.005	<0.0002
9/8/2020		<0.005	<0.005	<0.005		<0.0002
9/9/2020	<0.005				<0.005	
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	0.000288	0.000208
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			0.00025	0.00014 (J)
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	0.00023	0.00012 (J)
11/2/2022	0.000122 (J)	0.000144 (J)	0.000146 (J)	0.000125 (J)	0.000233	<0.0002
Mean	0.002554	0.002585	0.002572	0.002546	0.002625	0.000178
Std. Dev.	0.002614	0.002582	0.002595	0.002624	0.002539	3.784E-05
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.000208
Lower Lim.	0.0001	9.94E-05	0.00011	7.98E-05	0.00023	0.00012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
5/28/2019	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005
9/8/2020	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005
10/18/2021		<0.0005
10/19/2021	<0.0005	
5/31/2022	0.00036 (J)	0.00035 (J)
11/2/2022	<0.0005	<0.0005
Mean	0.0004825	0.0004813
Std. Dev.	4.95E-05	5.303E-05
Upper Lim.	0.0005	0.0005
Lower Lim.	0.00036	0.00035

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-8
5/28/2019	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002
10/19/2021	0.0001 (J)	8E-05 (J)
5/31/2022	<0.0002	
6/1/2022		<0.0002
11/2/2022	<0.0002	<0.0002
Mean	0.0001875	0.000185
Std. Dev.	3.536E-05	4.243E-05
Upper Lim.	0.0002	0.0002
Lower Lim.	0.0001	8E-05

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/3/2023 2:17 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
5/28/2019		<0.01	0.0089 (J)	<0.00102	<0.00102		
5/29/2019	<0.01					<0.01	
10/2/2019	<0.01	<0.01	0.00472 (J)	<0.00102	<0.00102	<0.01	
3/30/2020		<0.01	0.00658 (J)	<0.00102	<0.00102		
3/31/2020	<0.01					<0.01	<0.01
9/8/2020		0.0052 (J)	0.0052 (J)	<0.00102	<0.00102		<0.01
9/9/2020	<0.01					<0.01	
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.00102	<0.00102	0.00128	0.00111
10/18/2021			0.00672	<0.00102			
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118	0.00114
5/31/2022		0.0217	0.0132				
6/1/2022	0.00125			0.00058 (J)	<0.00102	0.00204	0.00132
11/2/2022	0.00133	0.0247	0.0156	<0.00102	<0.00102	0.00198	0.00163
Mean	0.005523	0.0126	0.009153	0.000965	0.0009575	0.00581	0.0042
Std. Dev.	0.004789	0.007672	0.004066	0.0001556	0.0001768	0.004489	0.004496
Upper Lim.	0.01	0.01936	0.01346	0.00102	0.00102	0.01	0.01
Lower Lim.	0.000778	0.001381	0.004843	0.00058	0.00052	0.00118	0.00111