



*Prepared for*

**Georgia Power Company**  
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**2023 ANNUAL GROUNDWATER  
MONITORING AND CORRECTIVE  
ACTION REPORT  
PLANT BRANCH ASH PONDS B, C, & D**

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Project Number: GW8862

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## CERTIFICATION STATEMENT

This *2023 Annual Groundwater Monitoring and Corrective Action Report, Plant Branch Ash Ponds B, C, & D* has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.



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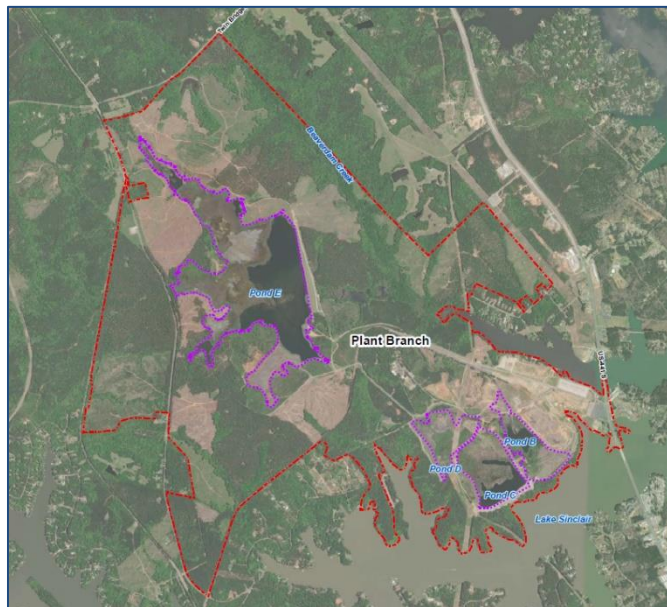
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Date



## SUMMARY

This summary of the *2023 Annual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective action program for the reporting period of July 2022 through June 2023 (referred herein as the “annual reporting period”) at the Georgia Power Company (Georgia Power) Plant Branch Ash Ponds B, C, and D (AP-BCD) (the Site). This summary was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Georgia Power to meet the requirements listed in Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, and by reference, Part A, Section 6<sup>1</sup> of the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Branch is located at 1100 Milledgeville Road, approximately 8 miles north of Milledgeville in Putnam County, Georgia. Plant Branch formerly operated as a coal-fired electric generating facility, until its decommissioning in July 2015, at which point it ceased producing electricity. CCR materials resulting from power generation were historically transferred and stored at five ash ponds (AP-) (i.e., A, B, C, D, and E). Ash Pond A was taken out of service in the late 1960s and was closed in April 2016. Ash Ponds B, C, D, and E are inactive, and will be closed by removal and



Plant Branch and the Site

relocation of its stored CCR to a fully lined and permitted landfill located on the plant property. As required in the CCR Rule, this Annual Report describes the status of the groundwater monitoring program, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and presents projected key activities for the upcoming year for AP-BCD. The other CCR unit (AP-E) at Plant Branch is reported separately.

<sup>1</sup> 80 FR 21468, Apr. 17, 2015, as amended at 81 FR 51807, Aug. 5, 2016; 83 FR 36452, July 30, 2018; 85 FR 53561, Aug. 28, 2020

Groundwater at the Site is monitored using a comprehensive well network that meets federal and state monitoring requirements. Routine sampling and reporting began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater conditions at the Site, an assessment monitoring program was established on November 13, 2019, and the Site entered into an assessment of corrective measures on July 9, 2020. During the annual reporting period, the Site remained in assessment monitoring as corrective measures are being evaluated.

Site groundwater elevation measurements were recorded at monitoring wells and piezometers prior to each semiannual assessment monitoring event. The elevation data were used to confirm the groundwater flow direction, and to confirm that the groundwater monitoring well network for the CCR units remains sufficient to monitor groundwater downgradient of the unit.

During this annual reporting period, the semiannual assessment monitoring events for AP-BCD were conducted by Atlantic Coast Consulting (ACC) in August 2022 and January 2023. A subsequent off-cycle assessment monitoring event was conducted in October 2022 to sample three newly installed wells. In order to meet the requirements of GA EPD Rule 391-3-4-.10(6) and 40 CFR 257.95 (b) and (d)(1), these assessment monitoring events included sampling and analysis of all Appendix III and Appendix IV constituents. Additional non-routine groundwater monitoring events were conducted in November 2022, March 2023, May 2023, June 2023, and July 2023 in support of the assessment of corrective measures effort. Surface water samples were also collected in August 2022, February 2023, and July 2023 by Arcadis in support of the assessment of corrective measures and for continued evaluation of the nature and extent of impacts in the vicinity of AP-BCD. Groundwater samples were submitted to GEL Laboratories, LLC, for analysis. Surface water samples were submitted to Pace Analytical Services, LLC, for analysis. Per the CCR Rule, groundwater results from these sampling events were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III<sup>2</sup> and Appendix IV<sup>3</sup> constituents in wells listed in the tables below.

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<sup>2</sup> Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

<sup>3</sup> Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228

<b>Appendix III Parameter</b>	<b>August 2022</b>
Boron	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50, BRGWC-52I
Calcium	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I
Chloride	BRGWC-29I, BRGWC-45, BRGWC-50, BRGWC-52I
Fluoride	BRGWC-50
pH (lower limit)	BRGWC-29I, BRGWC-50
Sulfate	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I
Total Dissolved Solids (TDS)	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50
<b>Appendix IV Parameter</b>	<b>August 2022</b>
Cadmium	BRGWC-50
Cobalt	BRGWC-50, PZ-51I
Selenium	BRGWC-32S

<b>Appendix III Parameter</b>	<b>January 2023</b>
Boron	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50, BRGWC-52I
Calcium	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I
Chloride	BRGWC-25I, BRGWC-45, BRGWC-50, BRGWC-52I
Fluoride	BRGWC-50
pH (lower limit)	BRGWC-29I, BRGWC-50
Sulfate	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I

Total Dissolved Solids (TDS)	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I
<b>Appendix IV Parameter</b>	<b>January 2023</b>
Beryllium	PZ-58I, PZ-60I
Cadmium	BRGWC-50, PZ-60I
Cobalt	BRGWC-50, PZ-51I, PZ-58I, PZ-60I, PZ-61I
Selenium	BRGWC-32S

Based on a review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from July 2022 through June 2023, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power’s CCR Rule Compliance website and provided to GA EPD semiannually.

## TABLE OF CONTENTS

SUMMARY.....	i
1.0 INTRODUCTION .....	1
1.1 Site Description and Background.....	2
1.2 Regional Geology and Hydrogeologic Setting.....	3
1.2.1 Regional and Site Geology.....	3
1.2.2 Hydrogeologic Setting.....	3
1.3 Groundwater Monitoring Well Network .....	4
2.0 GROUNDWATER MONITORING ACTIVITIES .....	6
2.1 Monitoring Well Installation and Maintenance.....	6
2.2 Assessment Monitoring .....	6
2.3 Additional Sampling and Surface Water Sampling.....	7
3.0 SAMPLING METHODOLOGY AND ANALYSES .....	9
3.1 Groundwater Elevation Measurement .....	9
3.2 Groundwater Gradient and Flow Velocity .....	9
3.3 Groundwater Sampling Procedures .....	11
3.4 Laboratory Analyses.....	12
3.5 Quality Assurance and Quality Control Summary .....	12
4.0 STATISTICAL ANALYSIS .....	13
4.1 Statistical Methods .....	13
4.1.1 Appendix III Statistical Methods .....	13
4.1.2 Appendix IV Statistical Methods .....	14
4.2 Statistical Analyses Results .....	15
4.2.1 August 2022 Data.....	15
4.2.2 January 2023 Data.....	15
4.2.3 Summary of Statistical Analyses.....	16
5.0 NATURE AND EXTENT.....	17
6.0 MONITORING PROGRAM STATUS.....	18
6.1 Assessment Monitoring Status .....	18
6.2 Assessment of Corrective Measures.....	18

7.0 CONCLUSIONS AND FUTURE ACTIONS..... 19

8.0 REFERENCES ..... 20

**LIST OF TABLES**

Table 1 Monitoring Well Network Summary

Table 2 Groundwater Sampling Event Summary

Table 3 Summary of Groundwater Elevations

Table 4 Horizontal Gradient and Flow Velocity Calculations

Table 5 Summary of Groundwater Analytical Data

Table 6 Summary of Surface Water Analytical Data

Table 7 Summary of Background Concentrations and Groundwater Protection Standards

**LIST OF FIGURES**

Figure 1 Site Location Map

Figure 2 Monitoring Well Network and Surface Water Location Map

Figure 3 Potentiometric Surface Contour Map – August 2022

Figure 4 Potentiometric Surface Contour Map – January 2023

**LIST OF APPENDICES**

Appendix A Well Design, Installation, and Development Reports, Plant Branch Ash Pond BCD (AP-BCD)

Appendix B Well Maintenance and Repair Documentation Memoranda

Appendix C Laboratory Analytical Results and Field Sampling Forms

Appendix D Statistical Analyses: August 2022 and January 2023

Appendix E Semiannual Remedy Selection and Design Progress Report

## LIST OF ACRONYMS

ACC	Atlantic Coast Consulting
ACM	Assessment of Corrective Measures
AP	ash pond
CCR	coal combustion residuals
CFR	Code of Federal Regulations
CSM	conceptual site model
DO	dissolved oxygen
ft/day	feet per day
GA EPD	Georgia Environmental Protection Division
GEL Laboratories	GEL Laboratories, LLC.
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GSC	Groundwater Stats Consulting
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
$K_h$	horizontal hydraulic conductivity
MCL	Maximum Contaminant Level
mg/L	milligram per liter
NELAP	National Environmental Laboratory Accreditation Program
NTU	Nephelometric turbidity units
ORP	oxidation-reduction potential
Pace Analytical	Pace Analytical Services, LLC.
PL	prediction limit
PWR	partially weathered rock
QA/QC	Quality Assurance/Quality Control
SSI	statistically significant increase
SSL	statistically significant level
s.u.	standard unit
TDS	total dissolved solids
TWR	transitionally weathered rock
Unified Guidance	Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance
USEPA	United States Environmental Protection Agency

## 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) (40 Code of Federal Regulations [CFR] Part 257, Subpart D) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Geosyntec Consultants, Inc. (Geosyntec) has prepared this *2023 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power) Plant Branch (Site) Ash Ponds B, C, and D (AP-BCD) for the reporting period of July 2022 through June 2023 (referred to herein as the “annual reporting period”).

Groundwater monitoring and reporting for AP-BCD are performed in accordance with the monitoring requirements of the GA EPD Rules for Solid Waste Management 391-3-4-.10(6), but also in accordance with the CCR Rule, specifically § 257.90 through § 257.95. This report documents the activities completed to establish the groundwater monitoring program in accordance with GA EPD Rule 391-3-4-.10(6)(a). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the CCR Rule. For ease of reference, the CCR Rule regulations are cited within this report, in lieu of citing both sets of regulations.

Plant Branch ceased producing electricity prior to April 2015, and therefore, Ash Ponds B, C, and D are not subject to the federal monitoring requirements, though GA EPD rule 391-3-4-.10(6)(a) promulgates the groundwater monitoring and corrective action regulations stipulated in the federal CCR Rule § 257.90 through § 257.95. A CCR Unit Solid Waste Handling Permit application for AP-BCD was submitted to GA EPD in November 2018 and is under review.

Due to statistically significant increases (SSIs) of Appendix III parameters identified in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2019), Georgia Power initiated an assessment monitoring program for AP-BCD on November 13, 2019. Statistically significant levels (SSLs) of Appendix IV parameters cadmium (Cd) and cobalt (Co) were identified during the initial assessment monitoring event. Georgia Power then initiated an assessment of corrective measures (ACM) program on July 9, 2020. Pursuant to § 257.96(b), Georgia Power continues to monitor groundwater associated with AP-BCD in accordance with the assessment monitoring program established for the unit in 2019, including semiannual monitoring and reporting pursuant to § 257.90 through § 257.95 of the CCR Rule.



SSLs of cadmium in BRGWC-50 and cobalt in BRGWC-50 and PZ-51I have been identified for assessment monitoring events subsequent to the November 2019 initiation of the assessment monitoring program and documented in the associated groundwater monitoring and corrective action reports. In February 2023, an SSL of selenium (Se) was reported in BRGWC-32S. In the most recent statistical analysis report the following new SSLs were identified downgradient of AP-B: cadmium (PZ-60I); cobalt (PZ-58I, PZ-60I, and PZ-61I); and beryllium (Be) (PZ-58I and PZ-60I). The new SSLs observed during the current annual reporting period (with the exception of beryllium) have been incorporated into the annual groundwater monitoring and corrective action reports along with the semiannual remedy selection and design progress report. The beryllium SSL, which was noted in the most recent statistical analysis report, will be further incorporated into the annual groundwater monitoring and corrective action reports along with the semiannual remedy selection and design progress report beginning in February 2024.

## **1.1 Site Description and Background**

Plant Branch is located in Putnam County, Georgia, approximately 8 miles north of Milledgeville. The property occupies approximately 3,200 acres and is bordered on the south and east by Lake Sinclair and by sparsely populated, forested, rural land on the north and west. Lake Sinclair is an approximately 15,330-acre hydroelectric reservoir that was created in 1953 by the impoundment of the Oconee River. Ash ponds B, C, and D (AP-BCD) are located on the southeast corner of the Plant surrounded by Lake Sinclair on the south, rural land on the north and west, and the former coal pile and Ash Pond A on the east (**Figure 1**). The physical address of the Site is 1100 Milledgeville Road, Milledgeville, Georgia, 31024.

The Site formerly operated as a coal-fired power plant that commenced power generation in 1965. Over the course of power generation at the facility, five CCR surface impoundments (ash ponds), identified as Ash Ponds A, B, C, D, and E, were utilized. The location of each ash pond is shown on **Figure 1**. The former AP-A, the first ash pond constructed at the facility, was taken out of service in the late 1960s and was closed in April 2016 by the removal and relocation of its stored CCR to AP-E. AP-BCD and AP-E are currently not active and will be closed by removal, specifically, by relocation of the CCR stored in those ash ponds to a new, permitted, on-site CCR landfill.

This report documents the groundwater monitoring program at the multi-unit AP-BCD. As previously noted, groundwater monitoring activities completed at Plant Branch's AP-E are reported separately.

## **1.2 Regional Geology and Hydrogeologic Setting**

The following section summarizes the geologic and hydrogeologic conditions at AP-BCD as described in the *Hydrogeologic Assessment Report Revision 01 – AP-BCD* (HAR Rev 01) submitted to GA EPD in November 2020 to provide information regarding the hydrogeologic conditions and the groundwater monitoring well network at the Site (Geosyntec, 2020b).

### **1.2.1 Regional and Site Geology**

The Site is located within the Piedmont Physiographic Province of central Georgia, which is characterized by gently rolling hills and narrow valleys, with locally pronounced linear ridges. Generally, the property slopes gently east and south toward Beaverdam Creek and Lake Sinclair. The metamorphic and igneous rocks that underlie the area have been subjected to physical and chemical weathering which has created a landscape dissected by creeks and streams. Bedrock is typically overlain by a variably thick blanket of residual soils and saprolite. The overall depth of weathering in the Piedmont/Blue Ridge is generally about 20 to 60 feet; however, the depth of weathering along discontinuities and/or very mafic rock units may extend to depths greater than 100 feet. Because of such variations in rock types and structure, the depth of weathering can vary significantly over short horizontal distances. The bedrock underlying the saprolite is fine- to medium-grained, poorly jointed biotite-quartz-feldspar gneiss.

Based on our review of available data, micaceous, locally saprolitic soils, consisting primarily of clay, silty clay, silt, and sandy clay occur as a variably thick blanket of residuum overlying bedrock across most of the Site. The thickness of the residual soil encountered in AP-BCD borings is variable, ranging from approximately 10 feet to as much as 75 feet. Between the residual soil/saprolite zone and the underlying bedrock there is a zone of transitionally weathered rock (TWR) or partially weathered rock (PWR), as defined by standard penetration test data, where available. Material overlying the top of rock surface, including residual soil/saprolite and TWR/PWR, is collectively referred to as overburden.

### **1.2.2 Hydrogeologic Setting**

The uppermost aquifer at the Site is an unconfined regional groundwater aquifer that occurs primarily in the saprolite, PWR, and fractured bedrock. While the aquifer characteristics of each unit may vary, the groundwater is interpreted to be interconnected between these units, and they effectively act as one unconfined aquifer. Generally, the

water table surface at the Site is a subdued reflection of topography, with groundwater generally flowing east, west, and south. Downward hydraulic gradients dominate in the topographically high areas, while upward gradients are observed in topographic lows. Recharge to the fractured bedrock aquifer system comes primarily from precipitation that is stored in the overburden and slowly infiltrates to the bedrock through areas of enhanced permeability. Interconnected fractures are the primary conduit for groundwater flow through bedrock since the rock lacks primary porosity.

### **1.3 Groundwater Monitoring Well Network**

In accordance with § 257.91, a groundwater monitoring system was installed at AP-BCD that consists of a sufficient number of wells installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer to represent the groundwater quality both upgradient of the unit (i.e., background conditions) and passing the waste boundary of the unit. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site-specific hydrogeologic conditions.

Based on the Site hydrogeology, the monitoring well system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock as a single interconnected aquifer system. Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates TWR/PWR and the upper fractured mantle of bedrock (transition zone), and “D” indicates a screened zone in the deeper bedrock. Construction details for the wells and piezometers associated with evaluating groundwater flow and/or quality conditions in vicinity of AP-BCD are listed in **Table 1**. The locations of the detection monitoring wells (formerly known as “compliance monitoring wells”) and assessment monitoring wells (formerly known as “delineation wells”) are shown on **Figure 2**. Pursuant to § 257.195(g)(1)(iv), assessment monitoring wells will continue to be sampled concurrently with the detection monitoring well network as part of the ongoing assessment groundwater monitoring program. An on-site network of piezometers is used to gauge water levels to define groundwater flow direction and gradients and to understand potential changes related to seasonal fluctuations or site activities. The piezometers may be sampled as needed to support the AP-BCD ACM program. The piezometer locations are shown on the potentiometric surface maps generated for this annual reporting period (**Figures 3 and 4**, discussed in detail in Section 3).

In April and May 2023, three (3) piezometers, ten (10) temporary piezometers, and two (2) monitoring wells were abandoned in preparation for construction activities related to

the new CCR landfill. These locations were either within, or in very close proximity to the proposed waste limits for the new landfill and were abandoned in accordance with the procedures outlined in the *Groundwater Monitoring Plan Rev. 01* (Geosyntec, 2020a) and in the Site Limitations provided by GA EPD in the permit issued for the CCR landfill. BRGWA-12S and BRGWA-12I that were previously incorporated into the AP-BCD network and served as upgradient locations in the detection monitoring network were abandoned during this effort. The details and documentation for the abandonment procedures at each of the 15 locations is included in **Appendix A**.

## 2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with § 257.90(e), the following describes monitoring-related activities performed during this reporting period and discusses any change in status of the monitoring program. Groundwater sampling was performed in accordance with § 257.93.

### 2.1 Monitoring Well Installation and Maintenance

Three (3) assessment monitoring wells (PZ-64I, PZ-65I, and PZ-66I) and three (3) piezometers (PZ-67, PZ-68D, and PZ-69I) were installed in August and September 2022 to provide additional data to characterize groundwater quality and flow conditions downgradient of AP-BCD. Piezometer PZ-68D was reclassified as an assessment monitoring well after notification of the selenium SSL in BRGWC-32S in February 2023. In addition, five piezometers (PZ-71I, PZ-72I, PZ-73I, PZ-74I, and PZ-75I) were installed in May and June 2023 to provide additional data to characterize groundwater quality and flow conditions downgradient of AP-D. Wells PZ-74I and PZ-75I are classified as assessment monitoring wells, whereas PZ-71I through PZ-73I are classified as piezometers. The well installation reports that include detailed boring and well construction logs for the installation of these wells during this annual reporting period are provided in **Appendix A** and was submitted to GA EPD under separate cover.

The well and piezometer networks are inspected semiannually to evaluate if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In August 2022 and January 2023, the networks were inspected, necessary corrective actions were identified and subsequently completed, as documented in **Appendix B**. This documentation was prepared under the direction of a professional geologist or engineer registered in the State of Georgia.

### 2.2 Assessment Monitoring

Pursuant to § 257.94(e)(3), an assessment monitoring program was initiated for AP-BCD based on SSIs of Appendix III constituents documented in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2019). A notice of assessment monitoring was placed in the operating record on November 13, 2019. An ACM program was initiated on July 9, 2020. Georgia Power completed an ACM report (Golder, 2020) for AP-BCD at Plant Branch on December 4, 2020. In accordance with § 257.96(b), groundwater continues to be monitored at AP-BCD under the assessment monitoring program while the ACM phase is implemented.

In support of the routine assessment monitoring program, the semiannual assessment monitoring events were conducted in August 2022 and January 2023. A subsequent non-routine assessment monitoring event was conducted in October 2022 to sample the newly installed PZ-64I, PZ-65I, and PZ-66I. The wells sampled during these three events and the dates associated with the events are summarized in **Table 2**. The collected groundwater samples were analyzed for the complete list of Appendix III and Appendix IV constituents. As shown on **Table 2**, wells PZ-64I and PZ-69I were resampled on November 7, 2022, and March 16, 2023, respectively, to confirm select Appendix IV constituents reported during the assessment monitoring events. Numerous additional sampling events were conducted to confirm select Appendix IV constituents downgradient of AP-D. On March 29, 2023, PZ-18S and PZ-19S were sampled. Newly installed PZ-71I was sampled on May 11, 2023 and resampled on May 18, 2023. Newly installed PZ-72I and PZ-73I were sampled on May 22, 2023 and resampled between May 31 and June 1, 2023. Finally, newly installed PZ-74I and PZ-75I were sampled on June 6, 2023 and July 5, 2023, respectively. All groundwater sampling events are summarized in **Table 2**.

Field data, field calibration forms, well inspection logs, laboratory analytical results, and data validation reports associated with these sampling events are provided in **Appendix C**. Details of these events and analytical results are discussed in Section 3.

### **2.3 Additional Sampling and Surface Water Sampling**

Supplemental sampling was conducted during the reporting period in support of the ACM and in continuing to evaluate the nature and extent of impacts resulting from AP-BCD. Supplemental groundwater samples were collected from the monitoring well network during the August 2022 and January 2023 assessment monitoring events and were analyzed for major cations (calcium [Ca], magnesium [Mg], potassium [K], and sodium [Na]) and major anions (chloride [Cl], sulfate [SO<sub>4</sub>], and alkalinity [i.e., bicarbonate, carbonate, total] [HCO<sub>3</sub>]) as well as iron (Fe) and manganese (Mn). The data were collected in support of evaluating the geochemical composition of the groundwater and will be discussed as part of the ACM program. The laboratory reports associated with the data are provided in **Appendix C**.

Due to the presence of surface water features downgradient of select AP-B wells reporting SSLs, Georgia Power proactively collected surface water samples from discrete (surface, middle, and bottom) depths at five locations in Lake Sinclair on August 24, 2022, and February 1, 2023. The five sample locations closest to AP-B are shown on **Figure 2**. Water samples collected from these five locations are analyzed for Appendix III and

targeted Appendix IV constituents (cobalt), in addition to cations and anions (sodium, magnesium, potassium, and alkalinity). One of these locations, LR-9A, is used to delineate cobalt concentrations immediately downgradient of the AP-B wells identified to have SSLs of cobalt (presented in Section 4). In addition, surface water samples from discrete depths (surface and middle) at two locations in Lake Sinclair downgradient of AP-D were collected on July 14, 2023. These locations are also provided on **Figure 2**. Surface water samples at these two locations are analyzed for Appendix III and targeted Appendix IV constituents (selenium), in addition to cations and anions (sodium, magnesium, potassium, and alkalinity). One of these locations, LS+3 is used to delineate selenium concentrations immediately downgradient of the AP-D wells identified to have SSLs of selenium (presented in Section 4).

Surface water samples are collected in accordance with USEPA Region 4 Science and Ecosystem Support Division Operating Procedures for Surface Water Sampling SESDPROC 201-R4 (USEPA, 2016). The laboratory reports associated with the August 24, 2022, February 1, 2023, and July 14, 2023 surface water sampling events are provided in **Appendix C**. Georgia Power will continue collecting the surface water samples semiannually as needed to support the nature and extent evaluation.

### 3.0 SAMPLING METHODOLOGY AND ANALYSES

The following section presents a summary of the field sampling procedures that were implemented, and the groundwater sampling results that were obtained in connection with the assessment monitoring program conducted at AP-BCD during this annual reporting period.

#### 3.1 Groundwater Elevation Measurement

Prior to each semiannual assessment monitoring event, a synoptic round of depth-to-groundwater-level measurements were recorded from all the wells and piezometers (including those associated with AP-E and the proposed new CCR landfill area) and used to calculate the corresponding groundwater elevations. The calculated groundwater elevations obtained in August 2022 and January 2023 at AP-BCD and AP-E are presented in **Table 3**. The surface water elevations for Lake Sinclair are obtained from Georgia Power.

The groundwater and surface water elevation data were used to prepare a potentiometric surface map for the August 2022 and January 2023 events, which are presented on **Figures 3** and **4**, respectively. The general direction of groundwater flow across AP-BCD is towards Lake Sinclair (south-southeast). This groundwater flow pattern is consistent with previous observations.

#### 3.2 Groundwater Gradient and Flow Velocity

The horizontal groundwater hydraulic gradients within the uppermost aquifer at AP-BCD were calculated using the groundwater elevation data from the August 2022 and January 2023 events. Horizontal hydraulic gradients were calculated along the flow paths between BGWA-23S and BRGWC-30I proximal to AP-D, and between BRGWC-47 and BRGWC-50 in vicinity of AP-B and AP-C. The supporting calculations are presented in **Table 4**. The table also presents the average hydraulic gradients calculated from the August and January events. The general trajectory of the flow paths used in the calculations and associated potentiometric contour lines are shown on **Figures 3** and **4**. The calculated average hydraulic gradients associated with these well pairs for the annual reporting period are 0.029 feet per foot (ft/ft) and 0.013 ft/ft, respectively.

Groundwater flow rates at the Site were calculated based on the above hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon.



Horizontal hydraulic conductivity ( $K_h$ ) values used in flow calculations range from 1.45 to 2.53 feet per day (ft/day) and were based on slug test data presented in the 2020 *Hydrogeologic Assessment Report Revision 01* (Geosyntec, 2020b) and collected subsequently. The average observed  $K_h$  estimates from each lithologic unit in which the well pairs were screened was used to produce a representative estimate of groundwater flow velocity. An estimated effective porosity of 0.20 is used to represent average conditions at AP-BCD which was derived based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996). With these variables determined, and accounting for the averaged hydraulic gradient calculated between well pairs for the August 2022 and January 2023 events, horizontal flow velocities were calculated as below.

The approximate horizontal flow velocities associated with AP-BCD were calculated using the following derivative of Darcy's Law.

$$V = \text{linear velocity} = \frac{K_h * i}{n_e}$$

where:

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

$K_h$  = Horizontal Hydraulic Conductivity  $\left(\frac{\text{feet}}{\text{day}}\right)$

$i$  = Horizontal hydraulic gradient  $\left(\frac{\text{feet}}{\text{foot}}\right) = \frac{h_1 - h_2}{L}$

$h_1$  and  $h_2$  = Groundwater elevation at location 1 and 2

$L$  = Distance between location 1 and 2

$n_e$  = Effective porosity

The supporting calculations for the August 2022 and January 2023 semiannual events are presented in **Table 4**. The average groundwater flow velocity at the site for this annual reporting period is approximately 0.23 ft/day across AP-BCD. The observed groundwater flow velocities are generally consistent with expected velocities, are consistent with historical observations, and confirm the groundwater monitoring system as properly located to monitor the uppermost aquifer for AP-BCD at Plant Branch.

### **3.3 Groundwater Sampling Procedures**

Groundwater samples were collected using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using dedicated bladder pumps with dedicated tubing, non-dedicated bladder pumps, and peristaltic pumps. For wells sampled with non-dedicated bladder and peristaltic pumps, the pump intake was lowered to the midpoint of the well screen (or as appropriate based on the groundwater level). Non-dedicated bladder pump and peristaltic pump samples were collected using new disposable polyethylene tubing; all non-dedicated tubing was disposed of following the sampling event. All non-disposable equipment was decontaminated before use and between well locations.

An AquaTROLL<sup>®</sup> (In-Situ field instrument) was used to monitor and record field water quality parameters [i.e., pH, conductivity, dissolved oxygen (DO), temperature, and oxidation reduction potential (ORP)] during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 2020we (or similar) portable turbidity meter. Groundwater samples were collected once the following stabilization criteria were met:

- pH  $\pm$  0.1 Standard Units (s.u.).
- Conductivity  $\pm$  5%.
- $\pm$ 0.2 milligrams per liter (mg/L) or  $\pm$ 10% (whichever is greater) for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measured less than 5 nephelometric turbidity units (NTU) or measured between 5 and 10 NTU following three hours of purging.

Following purging, and once stabilization was achieved, unfiltered samples were collected into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to GEL Laboratories, LLC (GEL Laboratories) in Charleston, South Carolina, following chain-of-custody protocol. The field sampling and equipment calibration forms generated during the groundwater sampling events conducted throughout the annual reporting period are provided in **Appendix C**.

### **3.4 Laboratory Analyses**

Groundwater laboratory analyses were performed by GEL Laboratories, and surface water analyses were performed by Pace Analytical Services, LLC, (Peachtree Corners, Georgia), both of which are accredited by the National Environmental Laboratory Accreditation Program (NELAP). GEL Laboratories and Pace Analytical Services maintain a NELAP certification for the Appendix III and Appendix IV constituents and the geochemical parameters analyzed for this project. Analytical methods used for sample analysis are listed in the analytical laboratory reports included in **Appendix C**.

The groundwater results from the annual reporting period are summarized in **Table 5**. Surface water analytical results from the August 2022, February 2023, and July 2023 monitoring events are summarized in **Table 6**.

### **3.5 Quality Assurance and Quality Control Summary**

Quality assurance/quality control (QA/QC) samples were collected during each sampling event at the minimum rate of one QA/QC sample per 10 groundwater samples and included the following: field duplicates, equipment blanks, and field blank samples. QA/QC samples were collected in appropriately preserved laboratory-provided sample containers and submitted under the same chain of custody as the primary samples for analysis of the same constituents by GEL Laboratories.

In addition to collecting QA/QC samples, the data were validated based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and applicable federal guidance documents (USEPA, 2011; USEPA, 2017). Where necessary, the data were qualified with supporting documentation and justifications. The data are considered usable for meeting project objectives, and the results are considered valid. The associated data validation reports are provided in **Appendix C** with the laboratory reports.

## 4.0 STATISTICAL ANALYSIS

The following section summarizes the statistical analysis of Appendix III groundwater monitoring data performed pursuant to § 257.93. In addition, pursuant to § 257.95(d)(2), Georgia Power established GWPS for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the August 2022<sup>4</sup> and January 2023 assessment monitoring events. The data were analyzed by Groundwater Stats Consulting (GSC); the reports generated from the analyses are provided in **Appendix D**.

### 4.1 Statistical Methods

The selected statistical method for AP-BCD was developed in accordance with § 257.93(f) using methodology presented in Statistical Analysis of Groundwater Data at USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 2009). The Sanitas<sup>™</sup> Groundwater statistical software was used to perform the statistical analyses. Sanitas<sup>™</sup> is a decision-support software package, which incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the Unified Guidance.

Appendix III statistical analysis was performed to assess if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to assess if concentrations statistically exceeded the established state and federal GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in the statistical analysis reports provided in **Appendix D** and summarized in Sections 4.1.1 and 4.1.2.

#### 4.1.1 Appendix III Statistical Methods

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix III parameters. Upgradient well data were pooled to establish a background limit for an individual constituent, and the most recent sample from each downgradient well was compared to the statistical limit for each parameter to determine if concentrations exceeded background levels. The most recent sample from each downgradient well is compared to the background limit to assess whether there are SSIs and/or questionable results. An "initial exceedance" occurs when an Appendix III

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<sup>4</sup> Statistical analysis of the "August 2022" data set is inclusive of the data from the supplementary October 2022 assessment monitoring event.

constituent reported in the groundwater of a downgradient detection monitoring well exceeds the constituent's associated PL. The 1-of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample confirms the initial exceedance by also exceeding the statistical limit. If the resample falls within its respective PL, no exceedance is declared. The Sen's Slope/Mann Kendall trend test was used to statistically evaluate concentration levels over time and determine if concentrations are increasing, decreasing, or stabilizing.

#### 4.1.2 Appendix IV Statistical Methods

For the Appendix IV constituents, parametric tolerance limits were used to calculate site specific background limits from 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 upon the number of background samples. The background limits were then used when determining the GWPS under GA EPD Rule 391-3-4-.10(6)(a).

To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV constituents in each downgradient detection and assessment monitoring well with a minimum of four samples. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. Due to previous non-routine (or ACM investigation) sampling, some Appendix IV constituents at a well location have differing number of analytical data points.

The confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If a confidence interval exceeds a GWPS, an SSL exceedance is identified.

USEPA revised the CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in § 257.95(h)(1-3), the GWPS is defined by the below criteria. These criteria were adopted into the GA EPD Rules for Solid Waste Management 391-3-4-.10 on February 22, 2022.

- (1) The maximum contaminant level (MCL) established under §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; and
  - (iv) Molybdenum: 0.10 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents and are presented in **Table 7**.

## **4.2 Statistical Analyses Results**

Based on review of the Appendix III statistical analysis of August 2022 and January 2023 data presented in **Appendix D**, groundwater conditions have not returned to background and assessment monitoring should continue pursuant to § 257.95(f). A detailed list of the noted exceedances is provided in **Appendix D**.

Based on the statistical analysis of Appendix IV constituents, the following constituents exceeded the corresponding GWPS for the assessment monitoring events:

### **4.2.1 August 2022 Data**

- Cadmium: BRGWC-50
- Cobalt: BRGWC-50 and PZ-51I
- Selenium: BRGWC-32S

Wells with SSLs were further evaluated using the Sen's Slope/Mann Kendall trend test (**Appendix D**). A statistically significant decreasing trend of cadmium was identified during this reporting period in BRGWC-50. No statistically significant trends were identified for cobalt in BRGWC-50 or PZ-51I. A statistically significant increasing trend of selenium was identified during this reporting period in BRGWC-32S.

### **4.2.2 January 2023 Data**

- Cadmium: BRGWC-50 and PZ-60I
- Cobalt: BRGWC-50, PZ-51I, PZ-58I, PZ-60I, and PZ-61I

- Selenium: BRGWC-32S
- Beryllium: PZ-58I and PZ-60I

Wells with SSLs were further evaluated using the Sen's Slope/Mann Kendall trend test (**Appendix D**). A statistically significant decreasing trend of cadmium was identified during this reporting period in BRGWC-50. No statistically significant trends were identified for cobalt in BRGWC-50, PZ-51I, PZ-58I, PZ-60I, or PZ-61I. A statistically significant increasing trend of selenium was identified during this reporting period in BRGWC-32S. Note that the trend tests have meaningful results once well/constituent pairs have greater than five independent samples. As such, no statistically significant trends were identified during this reporting period for beryllium in PZ-58I and PZ-60I given the sample population size equals four.

#### **4.2.3 Summary of Statistical Analyses**

The SSLs identified for the annual reporting period are generally consistent with the previous annual reporting period, with the following exception:

- A new SSL of selenium was identified in BRGWC-32S downgradient of AP-D in the February 2023 statistical analysis.
- New SSLs of Appendix IV constituents were identified downgradient of AP-B in the most recent statistical analysis: cadmium in PZ-60I; cobalt in PZ-58I, PZ-60I, and PZ-61I; and beryllium in PZ-58I and PZ-60I.

## 5.0 NATURE AND EXTENT

Results from the delineation activities performed during the current annual reporting period indicate that vertical delineation of cadmium, cobalt, selenium, and beryllium to below the site-specific GWPS have been completed at AP-BCD. In addition, downgradient horizontal delineation to below the GWPS has been completed for cadmium, cobalt, beryllium, and selenium at AP-BCD. Specific details regarding the delineation status at AP-BCD are discussed in the *Semiannual Remedy Selection and Design Progress Report (Appendix E)*.

In summary, the SSLs are delineated to below their respective GWPS:

- Beryllium (PZ-58I and PZ-60I): Horizontally delineated downgradient by PZ-61I and vertically by PZ-50D.
- Cadmium (BRGWC-50 and PZ-60I): Horizontally delineated downgradient by PZ-61I and vertically by PZ-50D.
- Cobalt (BRGWC-50, PZ-51I, PZ-58I, PZ-60I, and PZ-61I): Horizontally delineated downgradient by surface water location LR+9A and vertically delineated by PZ-51D.
- Selenium (BRGWC-32S): Horizontally delineated downgradient by surface water location LS+3 and vertically delineated by PZ-68D.

Detection and assessment wells will be monitored in future monitoring events. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), statistical analysis will be performed to construct confidence intervals required to assess SSLs for Appendix IV constituents once sufficient data is available for new assessment wells (i.e., a minimum of four independent samples required). Evaluation of the upgradient and side-gradient (to the north) extent of cobalt is ongoing to support the ACM program.



## 6.0 MONITORING PROGRAM STATUS

### 6.1 Assessment Monitoring Status

Pursuant to § 257.96(b), Georgia Power will continue to monitor the groundwater at AP-BCD in accordance with the assessment monitoring program regulations of § 257.95 while ACM efforts are implemented to address SSL concentrations of cadmium and cobalt in monitoring well BRGWC-50 and PZ-60I; cobalt in PZ-51I, PZ-58I, and PZ-61I; selenium in BRGWC-32S; and beryllium in PZ-58I and PZ-60I. Pursuant to § 257.195(g)(1)(iv), the additional assessment wells will continue to be sampled as part of the ongoing assessment groundwater monitoring program.

### 6.2 Assessment of Corrective Measures

The ACM efforts completed during the second half of this annual reporting period are presented in the *Semiannual Remedy Selection and Design Progress Report* provided in **Appendix E**. The semiannual progress report summarizes:

- i) The current conceptual site model (CSM) applicable to evaluating groundwater corrective measures proposed in the ACM Report (Golder, 2020b).
- ii) Summary of work completed to date to achieve delineation of constituents exceeding GWPS and a summary of data collected to date to support remedy selection.
- iii) The status of evaluating applicable corrective measures at the Site.
- iv) The planned activities and anticipated schedule for the following semiannual reporting period.

In accordance with § 257.97(a), Georgia Power will include future semiannual progress reports with each groundwater monitoring and corrective action report to document results associated with additional data collection, and present progress toward selection and design of a groundwater remedy.

## 7.0 CONCLUSIONS AND FUTURE ACTIONS

This *2023 Annual Groundwater Monitoring and Corrective Action Report* for Plant Branch AP-BCD was prepared to fulfill the requirements of the CCR Rule and GA EPD Rules of Solid Waste Management 391-3-4-.10. The groundwater flow direction and rates interpreted during the August 2022 and January 2023 monitoring events are generally consistent with historical evaluations. Statistical analysis of the groundwater monitoring data for the AP-BCD well network confirmed the continued presence of SSLs of cadmium and cobalt in well BRGWC-50 and cobalt in PZ-51I above corresponding GWPSs. The statistics also identified the presence of cadmium and cobalt in PZ-60I and cobalt in PZ-58I and PZ-61I above corresponding GWPS, and identified new SSLs of selenium in BRGWC-32S and beryllium in PZ-58I and PZ-60I. Based on the most current data from this reporting period, as described in Section 5, all SSLs are vertically and horizontally delineated downgradient to below the GWPS. In accordance with GA EPD Rule 391-3-4-.10(6) and § 257.96, the Site is in an ACM program for the identified SSLs.

Georgia Power will continue to monitor AP-BCD groundwater under the assessment monitoring program and proceed with the evaluation of remedies presented in the ACM Report (Golder, 2020b). The next routine semiannual assessment monitoring event for AP-BCD is scheduled for August 2023.

## 8.0 REFERENCES

- Geosyntec Consultants, 2020a. *Groundwater Monitoring Plan Revision 01, Georgia Power - Plant Branch, Putnam County, Georgia*. Submitted to Southern Company Services in November 2020.
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- Golder Associates, 2020a. *2020 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant Branch, Milledgeville, Georgia*, July 2020.
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- USEPA, 2016. Science and Ecosystem Support Division *Operating Procedures for Surface Water Sampling* SESDPROC-201-R4, December 16, 2016.
- USEPA, 2017. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January 2017.

# TABLES

**Table 1**  
Monitoring Well Network Summary  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting <sup>(1)</sup>	Northing <sup>(1)</sup>	Ground Surface Elevation (ft)	Top of Casing Elevation <sup>(2)</sup> (ft)	Top of Screen Elevation <sup>(2)</sup> (ft)	Bottom of Screen Elevation <sup>(2)</sup> (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
<b>AP-BCD Detection Monitoring Well Network</b>										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWA-12S*	Upgradient BCD	3/4/2014	2557142.89	1164286.80	431.6	434.64	383.7	373.7	58.3	10
BRGWA-12I*	Upgradient BCD	2/20/2014	2557138.79	1164301.32	431.5	434.39	364.3	354.3	77.6	10
BRGWA-23S	Upgradient BCD	7/26/2016	2557868.25	1162971.84	425.5	428.24	394.7	384.7	40.8	10
BRGWC-25I	Downgradient B	7/25/2016	2561315.08	1160583.67	355.0	357.37	344.5	334.5	20.5	10
BRGWC-27I	Downgradient C	7/22/2016	2559712.12	1159695.33	364.0	366.86	350.0	340.0	24.0	10
BRGWC-29I	Downgradient C	7/23/2016	2561050.03	1160297.65	350.6	353.23	340.6	330.6	20.0	10
BRGWC-30I	Downgradient D	7/18/2016	2557691.84	1161607.69	350.0	352.61	340.0	330.0	20.3	10
BRGWC-32S	Downgradient D	7/20/2016	2558497.97	1160677.67	403.6	406.39	368.6	358.6	45.0	10
BRGWC-45	Downgradient B	2/3/2018	2561075.38	1162229.68	381.6	384.58	335.0	325.0	57.0	10
BRGWC-47	Downgradient D	1/25/2018	2559456.75	1162700.66	408.8	411.20	327.2	317.2	92.0	10
BRGWC-50	Downgradient B	1/31/2018	2562372.96	1161593.45	378.8	381.35	324.2	314.2	65.0	10
BRGWC-52I	Downgradient B	8/6/2018	2562145.22	1161274.99	381.2	383.87	317.3	307.3	73.9	10
<b>AP-E Detection Monitoring Well Network</b>										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWA-17S	Downgradient E	3/13/2014	2554687.84	1166301.32	362.2	365.32	360.5	355.5	7.1	5
BRGWC-33S	Downgradient E	7/26/2016	2554064.97	1168057.09	414.2	416.68	398.2	388.2	26.4	10
BRGWC-34S	Downgradient E	7/25/2016	2554231.28	1167384.17	389.2	391.96	376.2	366.2	23.0	10
BRGWC-35S	Downgradient E	7/23/2016	2554476.13	1166646.02	363.7	366.31	346.7	336.7	27.4	10
BRGWC-36S	Downgradient E	7/26/2016	2554693.26	1165742.82	383.1	389.84	364.4	354.4	28.7	10
BRGWC-37S	Downgradient E	7/24/2016	2554979.63	1165093.07	444.4	447.05	390.8	380.8	63.6	10
BRGWC-38S	Downgradient E	7/22/2016	2555016.50	1164391.82	429.8	432.24	402.0	392.0	38.2	10
<b>AP-BCD Assessment Monitoring Well Network</b>										
PZ-44	Downgradient B	2/2/2018	2561587.42	1161724.48	380.5	383.04	333.9	323.9	57.0	10
PZ-50D	Downgradient	10/8/2020	2562380.34	1161589.51	378.3	380.86	282.3	272.3	106.0	10
PZ-51S	Downgradient B	8/1/2018	2562433.07	1161613.24	377.9	380.27	337.9	332.9	45.4	5
PZ-51I	Downgradient	8/1/2018	2562439.35	1161631.12	378.0	380.52	323.1	313.1	65.0	10
PZ-51D	Downgradient B	10/9/2020	2562433.15	1161640.16	378.1	380.75	282.1	272.1	106.0	10
PZ-57I	Downgradient B	3/24/2021	2562170.21	1161582.31	379.4	382.50	313.8	303.8	75.9	10
PZ-58I	Downgradient B	3/27/2021	2562297.82	1161579.00	379.3	382.27	325.7	315.7	63.9	10
PZ-59I	Downgradient B	3/31/2021	2562329.80	1161654.90	379.9	383.49	323.5	313.5	66.0	10
PZ-60I	Downgradient B	3/29/2021	2562330.79	1161588.01	379.5	382.61	329.0	319.0	60.8	10
PZ-61I	Downgradient B	3/30/2021	2562429.63	1161621.94	377.7	380.64	312.0	302.0	76.0	10
PZ-62I	Downgradient B	1/6/2022	2562336.00	1161478.90	378.1	380.95	318.1	308.1	70.0	10

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PZ-63I	Downgradient B	1/5/2022	2562233.10	1161371.20	378.6	381.31	332.1	322.1	56.5	10
PZ-64I	Downgradient B	9/10/2022	2562404.29	1161787.72	379.4	381.94	320.6	310.6	69.3	10
PZ-65I	Downgradient B	9/09/2022	2562240.57	1161692.72	379.6	382.06	320.9	310.9	69.3	10
PZ-66I	Downgradient B	9/08/2022	2562134.65	1161747.91	380.9	383.52	323.1	313.1	68.3	10
PZ-68D	Downgradient D	9/06/2022	2558512.90	1160690.48	402.5	405.25	328.8	318.8	84.3	10
PZ-74I	Downgradient D	5/24/2023	2557970.94	1160189.30	368.3	371.13	330.5	320.5	48.0	10
PZ-75I	Downgradient D	6/27/2023	2558343.03	1160009.37	354.9	357.86	337.9	327.9	27.4	10
<b>AP-E Assessment Monitoring Well Network</b>										
PZ-13S	Downgradient	3/19/2014	2555276.64	1168011.19	406.5	409.97	382.2	372.2	34.7	10
PZ-52D	Downgradient E	5/14/2020	2554051.53	1168053.71	414.3	417.03	364.8	354.8	59.5	10
PZ-53D	Downgradient E	5/17/2020	2554984.36	1164393.74	431.6	434.68	302.2	292.2	139.4	10
PZ-70I	Downgradient E	8/16/2022	2555374.08	1164326.66	422.9	425.70	363.4	373.4	52.9	10
<b>Piezometers</b>										
PZ-1D	Upgradient	4/4/2014	2551598.09	1171999.19	462.9	463.41	397.4	302.9	160.0	94.5
PZ-1I	Upgradient	3/10/2014	2551577.63	1171995.75	461.9	464.71	392.8	382.8	79.5	10
PZ-1S	Upgradient	3/20/2014	2551588.02	1171996.20	462.4	465.07	407.8	397.8	65.0	10
PZ-3D	Upgradient	3/27/2014	2550275.05	1165474.25	486.7	487.50	438.7	358.6	130.0	82
PZ-3I	Upgradient	3/11/2014	2550273.05	1165494.61	486.5	489.49	442.3	432.3	54.6	10
PZ-3S	Upgradient	3/11/2014	2550274.66	1165484.43	487.0	490.53	457.5	447.5	39.9	10
PZ-4I	Upgradient	3/11/2014	2551282.08	1163246.61	479.9	482.98	443.5	433.5	46.8	10
PZ-4S	Upgradient	3/10/2014	2551270.14	1163247.97	479.9	482.87	460.3	450.3	30.0	10
PZ-7S	Downgradient	4/1/2014	2553055.64	1169419.33	449.0	451.57	414.9	404.9	44.5	10
PZ-8S	Upgradient	4/1/2014	2551188.94	1167801.20	450.5	453.08	411.4	401.4	49.5	10
PZ-9S	Upgradient	3/5/2014	2553089.53	1162633.36	466.1	469.28	428.5	418.5	48.0	10
PZ-10S	Downgradient	3/5/2014	2554990.43	1164021.55	431.0	433.85	402.4	392.4	39.0	10
PZ-11S*	Downgradient	2/20/2014	2557002.59	1162467.37	390.9	393.99	376.8	366.8	24.5	10
PZ-12D*	Downgradient	4/14/2014	2557136.26	1164311.85	431.4	434.09	350.1	290.1	141.7	60
PZ-14I	Downgradient	3/20/2014	2554365.65	1168398.28	419.9	422.71	376.5	366.5	53.8	10
PZ-14S	Downgradient	3/20/2014	2554359.23	1168398.59	420.2	423.31	393.0	383.0	37.6	10
PZ-15I	Downgradient	3/25/2014	2554399.25	1167721.02	400.2	403.06	321.9	311.9	88.7	10
PZ-15S	Downgradient	3/27/2014	2554394.06	1167720.25	400.1	402.90	370.2	360.2	39.9	10
PZ-16I	Downgradient	3/14/2014	2554587.53	1166980.59	379.5	382.45	351.3	341.3	38.6	10
PZ-16S	Downgradient	3/18/2014	2554581.44	1166977.63	379.3	382.52	370.6	360.6	19.1	10
PZ-17I	Downgradient	3/17/2014	2554702.42	1166313.81	362.3	365.33	329.2	319.2	43.5	10
PZ-18I	Downgradient	2/26/2014	2557745.51	1160766.13	359.6	362.55	331.3	321.3	38.4	10
PZ-18S	Downgradient	3/26/2014	2557747.42	1160757.41	359.7	362.82	345.0	335.0	24.2	10
PZ-19I	Downgradient	3/4/2014	2558899.87	1159797.10	368.9	371.74	335.6	325.6	43.7	10
PZ-19S	Downgradient	3/4/2014	2558894.60	1159805.43	368.4	371.42	350.8	340.8	28.0	10
PZ-20I	Downgradient	3/5/2014	2560160.17	1159495.25	362.2	365.34	343.1	333.1	29.5	10
PZ-20S	Downgradient	3/5/2014	2560157.16	1159490.13	362.2	365.41	357.3	347.3	15.3	10
PZ-21I	Downgradient	3/10/2014	2561328.17	1160591.42	355.8	358.92	341.8	331.8	24.4	10
PZ-21S	Downgradient	3/11/2014	2561321.43	1160592.45	355.5	358.52	351.1	346.1	9.8	5
PZ-23I	Downgradient	7/29/2016	2557877.71	1162975.56	425.1	427.74	368.6	358.6	66.5	10

**Table 1**  
Monitoring Well Network Summary  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting <sup>(1)</sup>	Northing <sup>(1)</sup>	Ground Surface Elevation (ft)	Top of Casing Elevation <sup>(2)</sup> (ft)	Top of Screen Elevation <sup>(2)</sup> (ft)	Bottom of Screen Elevation <sup>(2)</sup> (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
BRGWC-24S	Downgradient A	7/27/2016	2562862.19	1162400.95	351.4	354.10	319.9	309.9	42.0	10
PZ-26I	Downgradient	7/26/2016	2561626.45	1160669.20	368.0	370.63	347.5	337.5	30.5	10
PZ-28I	Downgradient	7/24/2016	2560151.53	1159505.00	362.5	364.81	348.5	338.5	24.0	10
PZ-31S	Downgradient	7/26/2016	2557971.75	1160936.81	374.3	376.77	344.8	334.8	39.5	10
PZ-39*	Downgradient	7/30/2016	2557460.52	1163675.53	432.0	434.78	397.3	387.3	44.7	10
PZ-40S	Downgradient A	2/14/2017	2562807.61	1162415.06	353.2	355.96	324.4	314.4	40.2	10
PZ-41S	Downgradient A	2/14/2017	2562759.44	1162431.76	354.3	357.17	320.5	310.5	44.2	10
PZ-42S	Downgradient A	2/9/2017	2562734.89	1162845.64	359.0	361.66	337.2	327.2	32.2	10
PZ-43	Downgradient A	2/7/2018	2562031.42	1162159.72	381.0	383.71	351.0	341.0	40.4	10
PZ-46	Downgradient B	2/5/2018	2560558.89	1162756.31	382.1	384.64	346.5	336.5	45.6	10
PZ-48	Downgradient D	1/24/2018	2558444.63	1163046.78	418.3	420.90	361.7	351.7	67.0	10
PZ-49	Downgradient B	1/30/2018	2561125.71	1163321.35	382.2	384.99	375.6	365.6	17.0	10
PZ-54	Downgradient E	5/15/2020	2555458.38	1164828.76	440.8	443.86	398.8	388.8	52.0	10
PZ-55	Downgradient E	5/19/2020	2554783.76	1163208.08	450.2	453.07	410.9	400.9	49.3	10
PZ-56	Downgradient B	5/20/2020	2554086.36	1162965.21	416.2	418.84	396.9	386.9	29.3	10
PZ-67	Downgradient B	9/07/2022	2561919.76	1161831.98	378.8	381.48	351.0	341.0	38.3	10
PZ-69I	Downgradient D	8/31/2022	2558447.46	1160311.39	377.0	379.36	348.2	338.2	39.3	10
PZ-71I	Downgradient D	5/2/2023	2558230.83	1160295.35	382.6	385.34	352.8	342.8	40.0	10
PZ-72I	Downgradient D	5/9/2023	2558394.65	1160133.29	365.9	368.57	342.0	332.0	34.2	10
PZ-73I	Downgradient D	5/10/2023	2558559.30	1160226.37	349.9	352.63	334.9	324.9	25.3	10
PB-1S*	Downgradient	1/22/2019	2556355.89	1164910.63	400.4	403.16	372.4	362.4	38.0	10
PB-2D*	Downgradient	12/4/2018	2556914.34	1164853.67	414.9	416.71	367.9	357.9	57.0	10
PB-4S*	Downgradient	1/16/2019	2556069.32	1164335.20	409.3	411.15	371.3	361.3	48.0	10
PB-4D*	Downgradient	1/16/2019	2556060.72	1164339.50	409.0	412.12	304.5	294.5	114.5	10
PB-7S*	Downgradient	1/14/2019	2556186.30	1163831.09	399.7	402.88	376.7	366.7	33.0	10
PB-8S*	Downgradient	1/8/2018	2556792.21	1163018.39	398.6	401.82	373.6	363.6	35.0	10
PB-8D*	Downgradient	1/8/2018	2556786.65	1163024.53	398.2	401.74	304.2	294.2	106.0	10
PB-10S*	Downgradient	1/16/2019	2558551.25	1163589.10	397.6	400.91	374.6	364.6	33.0	10
PB-10D*	Downgradient	1/16/2019	2558546.62	1163593.43	397.5	400.31	322.5	312.5	85.0	10
PB-13S*	Downgradient	12/10/2018	2556626.03	1162084.43	370.8	373.31	330.8	320.8	50.0	10
PB-13D	Downgradient	12/10/2018	2556638.88	1162084.53	371.1	373.77	284.1	274.1	97.0	10

Notes:

ft = feet

ft BGS = feet below ground surface

-- = not applicable

\* = piezometers that were abandoned between May and June 2023

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

**Table 2**  
Groundwater Sampling Event Summary  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID	Hydraulic Location	August 23-25, 2022	October 06-12, 2022	November 07, 2022	January 24 - February 1, 2023	March 16, 2023	March 29, 2023	May 11, 2023	May 18, 2023	May 22, 2023	May 31 - June 01, 2023	June 06, 2023	July 05, 2023	Status of Monitoring Well
Purpose of Sampling Event:		Assessment	Assessment	Resample	Assessment	Resample	Assessment	Assessment	Resample	Assessment	Resample	Assessment	Assessment	
<i>AP-BCD</i>														
BRGWA-2S	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-2I	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-5S	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-5I	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-6S	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-12S	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-12I	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWA-23S	Upgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-25I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-27I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-29I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-30I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-32S	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-45	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-47	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-50	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
BRGWC-52I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-44	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-50D	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-51S	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-51I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-51D	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-57I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-58I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-59I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-60I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-61I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-62I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-63I	Downgradient	X	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-64I	Downgradient	not installed	X	X	X	--	--	--	--	--	--	--	--	Assessment
PZ-65I	Downgradient	not installed	X	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-66I	Downgradient	not installed	X	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-68D	Downgradient	not installed	--	--	X	--	--	--	--	--	--	--	--	Assessment
PZ-69I	Downgradient	not installed	--	--	X	X	--	--	--	--	--	--	--	Assessment
PZ-18S	Downgradient	--	--	--	--	--	X	--	--	--	--	--	--	Piezometer
PZ-19S	Downgradient	--	--	--	--	--	X	--	--	--	--	--	--	Piezometer
PZ-71I	Downgradient	not installed	not installed	not installed	not installed	not installed	not installed	X	X	--	--	--	--	Piezometer
PZ-72I	Downgradient	not installed	not installed	not installed	not installed	not installed	not installed	--	--	X	X	--	--	Piezometer
PZ-73I	Downgradient	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	X	X	--	--	Assessment
PZ-74I	Downgradient	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	--	X	--	Assessment
PZ-75I	Downgradient	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	not installed	X	Assessment



**Table 3**  
 Summary of Groundwater Elevations  
 Plant Branch AP-BCD, Putnam County, Georgia

Well ID	Top of Casing Elevation <sup>(1)</sup> (ft)	August 22, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation <sup>(1)</sup> (ft)	Depth to Water (ft BTOC)	Groundwater Elevation <sup>(1)</sup> (ft)
<b><i>AP-BCD Detection Monitoring Well Network</i></b>					
BRGWA-2S	443.20	12.71	430.49	10.42	432.78
BRGWA-2I	443.14	12.56	430.58	10.45	432.69
BRGWA-5S	443.86	12.17	431.69	12.53	431.33
BRGWA-5I	443.79	12.08	431.71	12.38	431.41
BRGWA-6S	458.96	26.92	432.04	25.73	433.23
BRGWA-12S*	434.64	49.04	385.60	49.96	384.68
BRGWA-12I*	434.39	48.72	385.67	49.65	384.74
BRGWA-23S	428.24	39.10	389.14	40.78	387.46
BRGWC-25I	357.37	11.12	346.25	10.18	347.19
BRGWC-27I	366.86	10.52	356.34	10.49	356.37
BRGWC-29I	353.23	10.65	342.58	9.91	343.32
BRGWC-30I	352.61	4.78	347.83	4.87	347.74
BRGWC-32S	406.39	40.76	365.63	42.28	364.11
BRGWC-45	384.58	15.13	369.45	10.93	373.65
BRGWC-47	411.20	27.78	383.42	28.83	382.37
BRGWC-50	381.35	38.22	343.13	38.21	343.14
BRGWC-52I	383.87	39.00	344.87	39.67	344.20
<b><i>AP-E Detection Monitoring Well Network</i></b>					
BRGWA-2S	443.20	12.71	430.49	10.42	432.78
BRGWA-2I	443.14	12.56	430.58	10.45	432.69
BRGWA-5S	443.86	12.17	431.69	12.53	431.33
BRGWA-5I	443.79	12.08	431.71	12.38	431.41
BRGWA-6S	458.96	26.92	432.04	25.73	433.23
BRGWC-17S	365.32	5.92	359.40	5.55	359.77
BRGWC-33S	416.68	8.96	407.72	10.27	406.41
BRGWC-34S	391.96	2.68	389.28	2.68	389.28
BRGWC-35S	366.31	2.03	364.28	1.75	364.56
BRGWC-36S	389.84	3.95	385.89	4.16	385.68
BRGWC-37S	447.05	52.64	394.41	54.02	393.03
BRGWC-38S	432.24	22.95	409.29	22.56	409.68
<b><i>AP-BCD Assessment Monitoring Well Network</i></b>					
PZ-44	383.04	28.06	354.98	27.78	355.26
PZ-50D	380.86	38.46	342.40	38.67	342.19
PZ-51S	380.27	38.35	341.92	38.77	341.50
PZ-51I	380.52	38.40	342.12	38.15	342.37
PZ-51D	380.75	38.08	342.67	38.19	342.56
PZ-57I	382.50	36.38	346.12	36.68	345.82
PZ-58I	382.27	38.41	343.86	38.66	343.61
PZ-59I	383.49	39.78	343.71	40.08	343.41
PZ-60I	382.61	38.41	344.20	38.40	344.21
PZ-61I	380.64	47.91	332.73	47.27	333.37

**Table 3**  
**Summary of Groundwater Elevations**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Well ID	Top of Casing Elevation <sup>(1)</sup> (ft)	August 22, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation <sup>(1)</sup> (ft)	Depth to Water (ft BTOC)	Groundwater Elevation <sup>(1)</sup> (ft)
PZ-62I	380.95	39.18	341.77	38.82	342.13
PZ-63I	381.31	39.48	341.83	39.01	342.30
PZ-64I	381.94	N/A	N/A	38.64	343.30
PZ-65I	382.06	N/A	N/A	36.51	345.55
PZ-66I	383.52	N/A	N/A	36.33	347.19
PZ-68D	405.25	N/A	N/A	42.61	362.64
PZ-74I	371.13	N/A	N/A	N/A	N/A
PZ-75I	357.86	N/A	N/A	N/A	N/A
<b>AP-E Assessment Monitoring Well Network</b>					
PZ-13S	409.97	28.20	381.77	28.41	381.56
PZ-52D	417.03	10.28	406.75	35.43	381.60
PZ-53D	434.68	23.39	411.29	22.90	411.78
PZ-70I	425.70	28.55	397.15	28.61	397.09
<b>Piezometers</b>					
PZ-1D	463.41	38.82	424.59	40.02	423.39
PZ-1I	464.71	39.70	425.01	41.38	423.33
PZ-1S	465.07	38.65	426.42	40.09	424.98
PZ-3D	487.50	49.37	438.13	49.60	437.90
PZ-3I	489.49	51.09	438.40	51.83	437.66
PZ-3S	490.53	Dry	--	Dry	--
PZ-4I	482.98	31.03	451.95	35.43	447.55
PZ-4S	482.87	Dry	--	Dry	--
PZ-7S	451.57	27.75	423.82	29.37	422.20
PZ-8S	453.08	25.26	427.82	25.52	427.56
PZ-9S	469.28	38.08	431.20	38.71	430.57
PZ-10S	433.85	27.52	406.33	27.56	406.29
PZ-11S*	393.99	19.92	374.07	20.28	373.71
PZ-12D*	434.09	78.19	355.90	66.68	367.41
PZ-14I	422.71	19.55	403.16	19.90	402.81
PZ-14S	423.31	21.58	401.73	21.90	401.41
PZ-15I	403.06	9.91	393.15	9.70	393.36
PZ-15S	402.90	10.22	392.68	9.96	392.94
PZ-16I	382.45	12.15	370.30	10.95	371.50
PZ-16S	382.52	12.30	370.22	11.13	371.39
PZ-17I	365.33	3.07	362.26	2.62	362.71
PZ-18I	362.55	21.70	340.85	21.08	341.47
PZ-18S	362.82	21.88	340.94	21.30	341.52
PZ-19I	371.74	19.25	352.49	18.79	352.95
PZ-19S	371.42	18.71	352.71	18.25	353.17
PZ-20I	365.34	17.04	348.30	15.98	349.36
PZ-20S	365.41	17.17	348.24	16.16	349.25
PZ-21I	358.92	12.65	346.27	11.63	347.29
PZ-21S	358.52	12.14	346.38	11.22	347.30
PZ-23I	427.74	38.54	389.20	39.81	387.93

**Table 3**  
**Summary of Groundwater Elevations**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Well ID	Top of Casing Elevation <sup>(1)</sup> (ft)	August 22, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation <sup>(1)</sup> (ft)	Depth to Water (ft BTOC)	Groundwater Elevation <sup>(1)</sup> (ft)
BRGWC-24S	354.10	14.37	339.73	13.24	340.86
PZ-26I	370.63	23.45	347.18	24.40	346.23
PZ-28I	364.81	16.52	348.29	15.50	349.31
PZ-31S	376.77	28.96	347.81	29.44	347.33
PZ-39*	434.78	48.95	385.83	49.00	385.78
PZ-40S	355.96	16.00	339.96	14.73	341.23
PZ-41S	357.17	17.19	339.98	16.09	341.08
PZ-42S	361.66	20.72	340.94	20.74	340.92
PZ-43	383.71	29.62	354.09	31.00	352.71
PZ-46	384.64	10.73	373.91	8.91	375.73
PZ-48	420.90	32.87	388.03	33.72	387.18
PZ-49	384.99	11.84	373.15	8.90	376.09
PZ-54	443.86	49.14	394.72	49.90	393.96
PZ-55	453.07	45.37	407.70	47.59	405.48
PZ-56	418.84	7.45	411.39	4.57	414.27
PZ-67	381.48	N/A	N/A	N/A	N/A
PZ-69I	379.36	N/A	N/A	23.18	356.18
PZ-71I	385.34	N/A	N/A	N/A	N/A
PZ-72I	368.57	N/A	N/A	N/A	N/A
PZ-73I	352.63	N/A	N/A	N/A	N/A
PB-1S*	403.16	N/A	N/A	16.85	386.31
PB-2D*	416.71	37.56	379.15	38.31	378.40
PB-4S*	411.15	24.43	386.72	26.01	385.14
PB-4D*	412.12	25.74	386.38	26.24	385.88
PB-7S*	402.88	27.43	375.45	22.29	380.59
PB-8S*	401.82	19.62	382.20	20.41	381.41
PB-8D*	401.74	20.45	381.29	21.04	380.70
PB-10S*	400.91	15.60	385.31	15.40	385.51
PB-10D*	400.31	15.08	385.23	14.93	385.38
PB-13S*	373.31	9.15	364.16	8.53	364.78
PB-13D	373.77	9.88	363.89	9.46	364.31

Notes:

-- = Ground water depth was not measured due to low groundwater levels

N/A = Not applicable

ft = feet

ft BTOC = feet below top of casing

\* = piezometers that were abandoned between May and June 2023

(1) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

**Table 4**  
Horizontal Gradient and Flow Velocity Calculations  
Plant Branch AP-BCD, Putnam County, Georgia

Flow Path Direction <sup>(1)</sup>	August 22, 2022				January 23, 2023			
	h <sub>1</sub> (ft)	h <sub>2</sub> (ft)	L (ft)	i (ft/ft)	h <sub>1</sub> (ft)	h <sub>2</sub> (ft)	L (ft)	i (ft/ft)
BRGWA-23S/BRGWC-30I	389.14	347.83	1374	0.030	387.46	347.74	1374	0.029
BRGWC-47/BRGWC-50	383.42	343.13	3130	0.013	382.37	343.14	3130	0.013

Flow Path Direction <sup>(1)</sup>	K <sub>h</sub> (ft/day)	n <sub>e</sub>	Average		
			i (ft/ft)	V (ft/day) <sup>(2)</sup>	V (ft/day) <sup>(3)</sup>
BRGWA-23S/BRGWC-30I	2.53	0.20	0.029	0.37	0.23
BRGWC-47/BRGWC-50	1.45	0.20	0.013	0.09	

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h<sub>1</sub> and h<sub>2</sub> = groundwater elevation at location 1 and 2

i = h<sub>1</sub>-h<sub>2</sub>/L = horizontal hydraulic gradient

K<sub>h</sub> = horizontal hydraulic conductivity

L = distance between location 1 and 2 along the flow path

n<sub>e</sub> = effective porosity

V = groundwater flow velocity

(1) Flow path direction relative to the orientation of AP-BCD and illustrated on Figures 3 and 4 of associated report.

(2) Groundwater flow velocity equation:  $V = [K_h * i] / n_e$

(3) Average groundwater flow velocity for unit.

**Table 5**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:	BRGWA-2S	BRGWA-2S	BRGWA-2I	BRGWA-2I	BRGWA-5S	BRGWA-5S	BRGWA-5I	BRGWA-5I	BRGWA-6S	BRGWA-6S	BRGWA-12S	BRGWA-12S	BRGWA-12I	BRGWA-12I	BRGWA-23S	BRGWA-23S	
Sample Date:	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	
Parameter <sup>(1,2,3)</sup>																	
<b>APPENDIX III</b>	Boron	0.00532 J	< 0.0052	0.00592 J	< 0.0052	0.00538 J	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	0.0053 J	0.00653 J	0.00884 J	0.0498	0.0437
	Calcium	4.65	4.86	13.9	14.2	18.2	19.4	14.3	15.8	3.97	3.90	6.09	5.62	15.8	13.7	8.09	6.97
	Chloride	2.18	2.16	2.02	2.09	3.59	3.56	3.64	3.93	2.39	2.30	5.46	3.79	2.50	2.49	3.16	2.88
	Fluoride	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.158	< 0.033	0.149	< 0.033	0.12	0.129	0.0926 J	0.151	0.214	0.157	0.231
	pH	5.95	5.26	6.67	6.70	6.36	6.47	6.24	6.42	6.51	6.54	5.90	5.97	6.39	6.48	5.66	5.76
	Sulfate	0.452	0.465	5.66	3.58	0.521	0.66	2.21	3.34	0.479	0.484	0.636	0.628	1.84	1.80	24.4	19.7
	TDS	45.0	63.0	117	93.0	101	104	107	124	52.0	64.0	55.0	59.0	104	114	103	102
<b>APPENDIX IV</b>	Antimony	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0241	0.0245	< 0.001	< 0.001
	Arsenic	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0021 J	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	Barium	0.012	0.0118	0.00954	0.00453	0.0379	0.0394	0.0241	0.0303	0.014	0.0132	0.0607	0.0576	0.0602	0.0512	0.0573	0.0468
	Beryllium	< 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	< 0.0002
	Cadmium	< 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	< 0.0003	< 0.0003
	Chromium	0.00908 J	0.0095 J	< 0.003	< 0.003	0.00435 J	0.00572 J	0.00647 J	0.00513 J	0.0143	0.0139	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cobalt	0.000844 J	0.000829 J	0.000767 J	0.00154	< 0.0003	< 0.0003	0.000553 J	0.000677 J	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.000308 J	< 0.0003
	Lead	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Lithium	< 0.003	< 0.003	0.0262	0.00919 J	< 0.003	< 0.003	< 0.003	< 0.003	0.00314 J	0.00341 J	< 0.003	< 0.003	0.00451 J	0.00529 J	0.00792 J	0.00749 J
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	< 0.0002	< 0.0002	0.0024	0.000601 J	< 0.0002	< 0.0002	0.00151	0.00192	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000413 J	0.000388 J	< 0.0002	< 0.0002
	Comb. Radium 226/228	0.531 U	1.35 U	1.70 U	2.05 U	0.735 U	0.402 U	2.30	0.811 U	0.203 U	1.55 U	1.69 U	3.07	0.558 U	1.49 U	1.59 U	5.62
	Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
Thallium	< 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	< 0.0006	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	32.6	35.0	62.4	65.2	73.8	78.4	72.8	79.4	58.2	25.6	32.0	32.0	65.8	65.2	30.4	31.0
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	32.6	35.0	62.4	65.2	73.8	78.4	72.8	79.4	58.2	25.6	32.0	32.0	65.8	65.2	30.4	31.0
	Iron	0.0763 J	0.0824 J	0.183	0.134	0.151	0.071 J	< 0.033	< 0.033	0.0701 J	0.0593 J	< 0.033	< 0.033	< 0.033	< 0.033	0.114	< 0.033
	Magnesium	4.86	5.34	8.82	8.28	8.51	9.02	10.4	10.9	4.06	4.14	3.53	3.28	4.0	3.98	4.69	4.43
	Manganese	0.0391	0.0348	0.0134	0.028	0.014	0.00658	< 0.001	0.00165 J	0.00329 J	0.00159 J	0.00103 J	0.00103 J	0.00506	0.00405 J	0.036	< 0.001
	Nitrate	--	0.327	--	1.41	--	0.173	--	0.371	--	0.638	--	0.945	--	0.438	--	0.261
	Potassium	0.439	0.432	5.88	2.85	0.635	0.522	0.909	1.35	0.685	0.706	2.55	2.54	3.37	3.61	2.52	2.0
	Sodium	3.36	3.63	5.73	5.29	4.03	4.78	4.93	5.22	2.44	2.54	5.41	5.52	10.3	11.0	9.81	10.0
Sulfide	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	

Notes:

-- = Parameter was not analyzed

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

H = Indicates the analytical holding time was exceeded for the parameter.

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

**Table 5**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:	BRGWC-251	BRGWC-251	BRGWC-271	BRGWC-271	BRGWC-291	BRGWC-291	BRGWC-301	BRGWC-301	BRGWC-32S	BRGWC-32S	BRGWC-45	BRGWC-45	BRGWC-47	BRGWC-47	BRGWC-50	BRGWC-50	
Sample Date:	8/23/2022	1/26/23	8/25/2022	1/25/2023	8/24/2022	1/26/23	8/24/2022	1/26/23	8/25/2022	1/24/2023	8/25/2022	1/25/2023	8/23/2022	1/26/23	8/24/2022	1/25/2023	
Parameter <sup>(1,2,3)</sup>																	
<b>APPENDIX III</b>	Boron	1.38	1.45	1.03	1.14	1.13	1.07	2.15	2.17	1.07	1.11	0.0458	0.0355	0.547	0.661	0.406	0.383
	Calcium	51.5	57.6	64.0	55.7	61.0	68.0	316	361	48.5	46.6	33.5	34.3	323	331	215	216
	Chloride	5.38	6.96	4.65	3.81	5.84	5.59	4.91	3.82	3.96	4.49	14.9	27.4	4.49	4.96	15.8	14.7
	Fluoride	0.186	0.202	0.234	0.152	0.103	0.0935 J	0.318	0.167	0.138	0.082 J	0.166	0.163	< 0.033	0.117	0.497	0.432
	pH	6.11	6.18	6.03	5.63	4.39	4.3	6.38	6.28	6.06	6.05	5.74	5.82	5.61	5.65	5.01	5.18
	Sulfate	158	182	176	150	298	293	935	1,030	254	247	114	102	1,410	1,310	1,400	1,290
	TDS	315	339	311	260	383	419	1,540	1,680	437	425	248	251	2,060	2,010	1,990	2,040
<b>APPENDIX IV</b>	Antimony	< 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	< 0.001
	Arsenic	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00283 J	0.00208 J	< 0.002	< 0.002	< 0.002	0.00225 J	0.00228 J	0.0024 J	0.00250 J	0.00236 J
	Barium	0.0259	0.0293	0.0161	0.0166	0.0175	0.018	0.0389	0.0397	0.0231	0.0182	0.0574	0.0695	0.0285	0.0311	0.0166	0.0165
	Beryllium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000845	0.00109	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00831	0.00962
	Cadmium	< 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	0.00818	0.00726
	Chromium	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cobalt	0.00342	0.0032	0.0079	0.00711	0.0066	0.00823	0.00163	0.00158	< 0.0003	< 0.0003	0.00357	0.00258	< 0.0003	0.000376 J	1.42	1.35
	Lead	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000595 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Lithium	< 0.003	< 0.003	< 0.003	< 0.003	0.00304 J	0.00331 J	0.0238	0.0279	0.00430 J	0.007 J	< 0.003	0.00333 J	0.0474	0.0506	0.0428	0.0542
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	0.00105	0.00092 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00141	0.0014	< 0.0002	< 0.0002	0.000424 J	0.000545 J	0.000296 J	0.00027 J	< 0.0002	< 0.0002
	Comb. Radium 226/228	1.90 U	3.24	1.79 U	1.53 U	1.97	2.27 U	3.26	2.73 U	1.32 U	2.25	2.44	1.29 U	3.74	3.28	1.87 U	5.71
Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.218	0.198	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00176 J	0.00189 J	
Thallium	< 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	< 0.0006	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	75.6	82.8	33.4	31.0	< 1.45	< 1.45	132	131	30.2	34.0	43.4	38.4	28.4	25.6	9.4	14.2
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	75.6	82.8	33.4	31.0	< 1.45	< 1.45	132	131	30.2	34.0	43.4	38.4	28.4	25.6	9.4	14.2
	Iron	0.193	0.453	0.0361 J	< 0.033	24.8	23.0	1.41	2.33	< 0.033	< 0.033	0.166	0.0752 J	0.101	0.0949 J	0.2	0.193
	Magnesium	21.4	22.7	5.73	6.59	7.83	8.54	57.3	64.4	30.9	32.8	17.9	17.3	125	123	151	153
	Manganese	1.68	1.71	0.674	0.885	1.20	1.43	1.15	1.22	0.0107	< 0.001	0.302	0.254	0.0103	0.0154	83.4	79.6
	Nitrate	--	1.17	--	0.659	--	0.102	--	< 0.033	--	0.223	--	0.126 J	--	0.0735 J	--	< 0.033
	Potassium	4.20	4.59	5.03	5.89	10.2	10.0	6.13	6.54	2.25	2.70	3.19	3.83	11.8	12.6	11.4	10.8
	Sodium	16.7	17.8	14.6	15.5	17.5	17.9	30.5	32.4	26.6	27.4	14.5	16.8	42.5	46.0	51.7	51.5
Sulfide	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	

Notes:

-- = Parameter was not analyzed

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

H = Indicates the analytical holding time was exceeded for the parameter.

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

**Table 5**  
**Summary of Groundwater Analytical Data**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Well ID:	BRGWC-521	BRGWC-521	PZ-18S	PZ-19S	PZ-44	PZ-44	PZ-50D	PZ-50D	PZ-51S	PZ-51S	PZ-511	PZ-511	PZ-51D	PZ-51D	PZ-571	PZ-571	PZ-581	PZ-581	PZ-591	PZ-591	
Sample Date:	8/25/2022	1/25/2023	3/29/2023	3/29/2023	8/25/2022	1/25/2023	8/25/2022	1/27/2023	8/24/2022	1/30/2023	8/24/2022	1/26/23	8/24/2022	1/26/2023	8/25/2022	1/30/2023	8/24/2022	1/26/2023	8/25/2022	1/26/2023	
Parameter <sup>(1,2,3)</sup>																					
<b>APPENDIX III</b>	Boron	1.56	1.79	0.832	1.37	1.59	1.47	0.278	0.277	0.00563 J	0.0102 J	0.459	0.445	0.036	0.0397	0.496	0.554	0.464	0.44	0.055	0.0543
	Calcium	38.3	36.3	53.7	46	27.2	25.1	210	214	7.94	7.87	197	198	118	119	53	102	146	151	267	278
	Chloride	6.27	6.35	5.35	5.97	6.28	5.84	26.2	11.5	4.58	4.45	9.64	9.5	17.5	21.8	8.41	9.46	10.7	12.1	53.0	41.4
	Fluoride	0.157	0.169	< 0.033	0.0549 J	0.184	0.13	0.106	0.151 J	0.131	0.0983 J	0.148	0.12	0.318	0.354	0.235	0.297	1.09	1.19	1.8	2.83
	pH	6.21	6.25	5.36	5.54	6.06	6.13	6.11	6.24	6.12	6.18	5.49	5.44	7.15	7.2	5.91	5.39	3.81	3.93	3.72	3.78
	Sulfate	142	145	265	231	47.0	41.0	1,060	885	0.872	0.733	1,240	1,150	377	370	294	618	840	1,070	2,900	4,000
	TDS	296	276	419	371	167	156	1,750	1,400	90.0	70.0	1,740	1,750	715	693	554	898	1,380	1,440	4,370	4,330
<b>APPENDIX IV</b>	Antimony	< 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	< 0.001	< 0.001	< 0.001
	Arsenic	< 0.002	< 0.002	--	--	< 0.002	0.00221 J	0.00235 J	0.00215 J	< 0.002	< 0.002	0.00222 J	< 0.002	0.00308 J	0.00275 J	< 0.002	< 0.002	0.00245 J	< 0.002	0.0221	0.0237
	Barium	0.0179	0.0249	--	--	0.056	0.0498	0.0257	0.0315	0.0223	0.023	0.0154	0.0152	0.0584	0.0481	0.0219	0.022	0.0181	0.0167	0.0121 J	0.0132 J
	Beryllium	< 0.0002	< 0.0002	--	--	< 0.0002	< 0.0002	0.000269 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000393 J	0.000787	0.0335	0.0377	0.1	0.115
	Cadmium	< 0.0003	< 0.0003	--	--	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.00478	0.00101	< 0.0003	< 0.0003	< 0.0003	0.00132	0.0046	0.00435	0.00536	0.00531
	Chromium	< 0.003	< 0.003	--	--	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	0.00324 J	0.00311 J
	Cobalt	< 0.0003	< 0.0003	--	--	< 0.0003	< 0.0003	0.506	0.0728	0.00193	0.00115	0.0239	0.0231	0.000306 J	< 0.0003	0.0194	0.151	0.503	0.518	1.46	1.86
	Lead	< 0.0005	< 0.0005	--	--	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000894 J	0.000895 J	< 0.0025	< 0.0025
	Lithium	0.0162	0.0186	--	--	0.00652 J	0.00728 J	0.0255	0.0274	< 0.003	< 0.003	0.0222	0.0247	0.00420 J	0.00883 J	0.0231	0.0359	0.0488	0.0553	0.164	0.20
	Mercury	< 0.000067	< 0.000067	--	--	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	0.000471 J	0.000609 J	--	--	< 0.0002	< 0.0002	0.00109	0.000817 J	< 0.0002	< 0.0002	0.000313 J	0.000283 J	0.00171	0.00085 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	Comb. Radium 226/228	4.97	7.94	--	--	1.60 U	2.49 U	2.26	2.66 U	1.20 U	3.19	0.625 U	1.53 U	3.33	3.70	0.773 U	3.27	1.16 U	4.03	1.02 U	1.33 U
	Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00348 J	0.00265 J	0.113	0.104
Thallium	< 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	< 0.0006	< 0.003	< 0.003	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	57.2	46.0	22	24.8	78.0	79.0	57.0	78.8	64.2	68.0	64.6	23.2	22.0	128	27.0	13.2	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	78.0	< 1.45	57.0	< 1.45	64.6	< 1.45	22.0	< 1.45	129	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	57.2	46.0	22	24.8	78.0	79.0	57.0	78.8	64.2	68.0	22.0	23.2	129	128	27.0	13.2	< 1.45	< 1.45	< 1.45	< 1.45
	Iron	1.16	1.34	0.0387 J	< 0.033	0.0537 J	0.0504 J	3.62	4.96	< 0.033	0.0375 J	0.093 J	0.0951 J	2.89	1.59	1.35	0.588	48.9	47.6	448	446
	Magnesium	18.3	19.3	36.9	29.7	11.5	10.8	95.7	86.4	8.58	10.0	134	131	28.1	29.5	31.1	64.6	80.0	86.3	180	193
	Manganese	0.601	0.56	0.0674	0.451	0.447	0.396	36.1	10.1	0.805	0.994	47.4	47.7	1.11	1.16	14.2	27.9	29.8	30.0	74.7	91.8
	Nitrate	--	< 0.033	0.114	0.0665 J	--	< 0.165	--	< 0.033	--	1.87	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.33
	Potassium	4.96	4.97	2.92	3.61	2.67	2.95	13.5	13.2	2.47	2.46	11.8	11.5	9.82	12.4	5.52	6.19	8.25	8.64	16.4	18.6
	Sodium	19.2	20.7	23.6	26.9	12.7	12.5	53.6	47.7	11.3	12.1	47.2	47.9	39.8	47.7	19.0	23.2	34.3	36.2	92.0	98.6
Sulfide	--	< 0.033	< 0.033	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	

Notes:

-- = Parameter was not analyzed

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

H = Indicates the analytical holding time was exceeded for the parameter.

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

**Table 5**  
**Summary of Groundwater Analytical Data**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Well ID:	PZ-601	PZ-601	PZ-611	PZ-611	PZ-621	PZ-621	PZ-631	PZ-631	PZ-641	PZ-641	PZ-641	PZ-651	PZ-651	PZ-661	PZ-661	PZ-68D	PZ-691	PZ-691	
Sample Date:	8/24/2022	1/26/2023	8/24/2022	1/26/2023	8/25/2022	1/30/2023	8/25/2022	1/30/2023	10/12/2022	11/7/2022	1/30/2023	10/11/2022	1/26/2023	10/11/2022	1/30/2023	2/1/2023	2/1/2023	3/16/2023	
Parameter <sup>(1,2,3)</sup>																			
<b>APPENDIX III</b>	Boron	0.293	0.288	0.277	0.353	0.473	0.561	0.672	0.82	0.0152	--	0.015	0.0299	0.0322	0.115	0.128	0.255	1.29	1.36
	Calcium	281	284	214	214	104	124	45.1	49.8	320	--	372	230	235	200	217	86.1	69.5	64.8
	Chloride	26.7	28.3	19.2	17.0	9.97	9.85	6.15	7.18	55.3	--	40.7	48.7	26.5	10.8	10.2	12.7	5.8	5.71
	Fluoride	1.32	1.66	0.103	0.184	< 0.033	0.161	0.235	0.23	0.0781 J	--	0.0767 J	1.51	1.08	0.0601 J	0.0574 J	0.166	0.0963 J	0.209
	pH	4.55	4.6	5.14	5.16	5.50	5.38	5.65	5.66	5.53	5.59	5.33	4.16	4.06	5.81	5.64	7.28	6.18	5.92
	Sulfate	1,770	1,970	1,800	1,490	571	647	234	280	2,440	--	2,800	2,520	3,160	1,770	2,060	258	275	274
	TDS	2,830	2,880	2,400	2,280	918	1,020	419	448	3,780	--	4,260	3,790	3,770	2,800	2,890	525	441	444
<b>APPENDIX IV</b>	Antimony	< 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	0.00176 J	< 0.001	< 0.001
	Arsenic	0.00358 J	0.00204 J	0.00295 J	0.00225 J	< 0.002	< 0.002	< 0.002	< 0.002	0.00896	--	0.0103	0.0201	0.00926	0.00489 J	0.00565	0.0058	0.00349 J	< 0.002
	Barium	0.0226	0.0218	0.0133	0.0125	0.0259	0.023	0.023	0.022	0.0543	--	0.0254	0.026	0.0103	0.0597	0.0284	0.145	0.0253	0.021
	Beryllium	0.0703	0.0782	0.00198	0.00164	0.000219 J	0.000293 J	< 0.0002	< 0.0002	0.0006	--	0.00116	0.0159	0.0179	< 0.0002	0.000318 J	< 0.0002	< 0.0002	< 0.0002
	Cadmium	0.017	0.0152	0.000859 J	0.000517 J	0.000618 J	0.00107	< 0.0003	< 0.0003	< 0.0003	--	0.00126	0.000606 J	0.00119	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	Chromium	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	--	< 0.003	0.00405 J	0.00352 J	< 0.003	< 0.003	< 0.003	0.00338 J	0.00425 J
	Cobalt	3.57	3.64	0.562	0.604	0.37	0.425	0.0232	0.028	9.05	8.97	11.0	0.481	0.405	0.364	0.345	0.000825 J	0.000668 J	< 0.0003
	Lead	< 0.0005	< 0.0005	0.00113 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	--	< 0.0005	0.00132 J	0.00133 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Lithium	0.101	0.114	0.00913 J	0.0123	0.00617 J	0.00661 J	0.00509 J	0.0066 J	0.0181	--	0.0187	0.102	0.0791	0.0193	0.0131	0.00899 J	0.00392 J	0.00362 J
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	--	< 0.000067	0.000088 J	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000286 J	0.000247 J	0.000741 J	0.000803 J	0.000432 J	--	0.000201 J	< 0.0002	< 0.0002	0.000918 J	0.000675 J	0.0111	< 0.0002	< 0.0002
	Comb. Radium 226/228	3.50	5.31	2.91	3.20	1.88 U	1.33 U	1.52 U	6.03	2.14	--	3.50	0.451 U	2.18 U	1.36 U	1.99	4.16	0.356 U	0.676 U
	Selenium	0.00417 J	0.0031 J	0.0051	0.00321 J	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.0171	--	0.0292	0.0377	0.0212	0.00393 J	0.00817	< 0.0015	0.196	0.148
Thallium	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	--	< 0.0006	0.00139 J	0.000773 J	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	2.0 J	6.0	16.8	16.0	19.2	17.0	32.8	26.4	48.0	--	37.4	< 1.45	< 1.45	68.0	62.4	117	25.6	--
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	--	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	--
	Alkalinity (total) as CaCO3	2.0 J	6.0	16.8	16.0	19.2	17.0	32.8	26.4	48.0	--	37.4	< 1.45	< 1.45	68.0	62.4	117	25.6	--
	Iron	0.533	0.663	0.532	0.651	1.03	0.516	2.04	0.991	1.98	--	2.85	445	320	25	17.8	0.405	0.438	--
	Magnesium	187	190	165	170	54.2	68.9	30.1	38.2	254	--	288	185	217	285	303	21.8	29.4	--
	Manganese	179	188	108	111	26.9	32.6	5.46	6.47	399	--	388	37.1	48.1	107	109	0.809	0.0548	--
	Nitrate	--	0.512	--	< 0.033	--	< 0.033	--	< 0.033	--	--	1.01	--	< 0.165	--	0.0461 J	< 0.033	0.144	--
	Potassium	14.7	14.5	6.34	7.32	9.67	10.2	7.94	7.95	14.6	--	14.5	14.1	11.3	11.0	10.8	7.56	2.38	--
	Sodium	62.7	62.3	58.8	59.6	25.6	27.8	16.4	18.0	61.7	--	68.5	81.3	73.0	55.6	62.9	49.7	28.1	--
Sulfide	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	--	< 0.033	--	< 0.033	--	< 0.033	< 0.033	< 0.033	--	

Notes:

-- = Parameter was not analyzed

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

H = Indicates the analytical holding time was exceeded for the parameter.

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.



**Table 5**  
 Summary of Groundwater Analytical Data  
 Plant Branch AP-BCD, Putnam County, Georgia

Well ID:		PZ-711	PZ-711	PZ-721	PZ-721	PZ-731	PZ-731	PZ-741	PZ-751
Sample Date:		5/11/2023	5/18/2023	5/22/2023	5/31/2023	5/22/2023	6/1/2023	6/6/2023	7/5/2023
Parameter <sup>(1,2,3)</sup>									
APPENDIX III	Boron	1.10	1.18	1.13	1.57	1.62	--	1.24	1.29
	Calcium	64.3	--	--	--	66.4	--	70.1	48.7
	Chloride	7.08	--	--	--	--	7.17	8.22	7.18
	Fluoride	0.175	--	--	--	--	0.158	0.0891 J	0.157
	pH	6.41	--	5.81	5.82	5.64	5.49	5.83	5.68
	Sulfate	262	--	--	--	--	291	304	267
	TDS	446	--	--	--	--	505	523	487
APPENDIX IV	Antimony	< 0.00100	--	--	--	< 0.00100	--	< 0.00100	--
	Arsenic	< 0.00200	--	--	--	< 0.00200	--	< 0.00200	--
	Barium	0.0921	--	--	--	0.0256	--	0.0586	--
	Beryllium	< 0.000200	--	--	--	< 0.000200	--	< 0.000200	--
	Cadmium	< 0.000300	--	--	--	< 0.000300	--	< 0.000300	--
	Chromium	< 0.00300	--	--	--	< 0.00300	--	< 0.00300	--
	Cobalt	0.00285	--	--	--	0.00131	--	0.00258	--
	Lead	0.000526 J	--	--	--	< 0.000500	--	< 0.000500	--
	Lithium	< 0.00300	--	--	--	0.0246	--	0.00704 J	--
	Mercury	< 0.0000670	--	--	--	< 0.0000670	--	< 0.0000670 H	--
	Molybdenum	0.000948 J	--	--	--	< 0.000200	--	0.00276	--
	Comb. Radium 226/228	3.66	--	--	--	--	1.80	7.80	--
	Selenium	0.0539	0.0539	0.0938	0.0977	< 0.00150	--	0.0262	0.0732
Thallium	< 0.000600	--	--	--	< 0.000600	--	< 0.000600	--	
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	53.4	--	--	--	--	30.4	43.4	--
	Alkalinity (Carbonate as CaCO3)	< 0.725	--	--	--	--	< 0.725	< 0.725	--
	Alkalinity (total) as CaCO3	53.4	--	--	--	--	30.4	43.4	--
	Iron	0.0557 J	--	--	--	0.219	--	1.38	--
	Magnesium	27.7	--	--	--	29.8	--	37.9	--
	Manganese	0.424	--	--	--	0.227	--	0.602	--
	Nitrate	< 0.0330	--	--	--	--	0.518	0.793	--
	Potassium	8.07	--	--	--	6.02	--	5.65	--
	Sodium	27.1	--	--	--	30.7	--	28.8	--
Sulfide	< 0.0330	--	--	--	--	< 0.0330	< 0.0330	--	

Notes:

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H = Indicates the analytical holding time was exceeded for the parameter.

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

**Table 6**  
 Summary of Surface Water Analytical Results  
 Plant Branch AP-BCD, Putnam County, Georgia

Loc ID:	LR-1 (Bottom)	LR-1 (Bottom)	LR-1 (Mid)	LR-1 (Mid)	LR-1 (Surface)	LR-1 (Surface)	LR+8A (Surface)	LR+8A (Surface)	LR+8 (Bottom)	LR+8 (Bottom)	LR+8 (Mid)	LR+8 (Mid)	LR+8 (Surface)	LR+8 (Surface)
Sample Date:	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023
Parameter <sup>(1,2,3)</sup>														
APP. III	Boron	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086
	Calcium	5.6	3.8	5.6	4	5.6	3.9	5.1	4.9	5.2	4.5	5.4	4.3	5.3
	Chloride	3.6	3.1	3.6	3	3.6	3.1	3.6	3.5	3.6	3.2	3.7	3.2	3.7
	Fluoride	0.1	< 0.05	0.1	< 0.05	0.1	< 0.05	< 0.05	< 0.05	0.1	< 0.05	0.1	< 0.05	0.1
	pH, Field	7.12	7.09	7.1	7.11	6.99	7.08	7.11	7.17	7.15	7.15	7.18	7.16	7.1
	Sulfate	1.7	2.3	1.8	2.3	1.8	2.3	2.3	3.8	2.1	2.4	2.2	2.5	2.2
	TDS	65	69	56	60	58	78	63	75	51	86	63	100	58
APP. IV	Cobalt	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039
	Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--
GEOCHEM	Alkalinity (total) as CaCO3	33.4	17.8	33.5	20.2	33.6	20.4	30.8	24.5	31.9	22	31.4	22.8	31.4
	Alkalinity (Bicarbonate as CaCO3)	33.4	17.8	33.5	20.2	33.6	20.4	30.8	24.5	31.9	22	31.4	22.8	31.4
	Magnesium	2.7	1.8	2.8	1.9	2.8	1.8	2.5	2.2	2.6	2.1	2.7	2	2.7
	Potassium	2.8	2.4	2.8	2.5	2.8	2.4	2.7	2.6	2.6	2.6	2.8	2.5	2.7
	Sodium	5	3.6	5.1	3.8	5.1	3.8	4.9	4.4	4.8	3.9	5.1	4	5

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

TDS = total dissolved solids

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

**Table 6**  
**Summary of Surface Water Analytical Results**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Loc ID:	LR+9A (Surface)	LR+9A (Surface)	LR+9 (Bottom)	LR+9 (Bottom)	LR+9 (Mid)	LR+9 (Mid)	LR+9 (Surface)	LR+9 (Surface)	LR+10 (Bottom)	LR+10 (Bottom)	LR+10 (Mid)	LR+10 (Mid)	LR+10 (Surface)	LR+10 (Surface)	LS+3 (Surface)	LS+3 (Mid)	LS+3A (Surface)	
Sample Date:	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	8/24/2022	2/1/2023	7/14/2023	7/14/2023	7/14/2023	
Parameter <sup>(1,2,3)</sup>																		
APP. III	Boron	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.040	< 0.040	< 0.040
	Calcium	5.2	5.6	5.2	4.4	5.1	4.4	5	4.6	4.8	4.5	4.9	4.5	5.1	4.5	5.8	5.2	5.9
	Chloride	3.6	3.6	3.7	3.4	3.7	3.4	3.7	3.4	4	3.5	3.8	4.1	3.8	3.7	3.4	3.3	3.3
	Fluoride	< 0.05	< 0.05	< 0.05	< 0.05	0.1	< 0.05	0.1	< 0.05	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.10	< 0.10	< 0.10
	pH, Field	7.11	7.2	7.14	7.19	7.17	7.2	7.08	7.21	7.16	7.26	7.15	7.24	7.05	7.18	7.05	6.98	7.09
	Sulfate	2.4	6.6	2.2	2.7	2.2	2.6	2.2	2.8	2.4	2.6	2.3	2.8	2.3	2.7	4	3.6	4.1
	TDS	51	84	58	60	52	67	68	97	45	64	48	60	64	57	58	58	58
APP. IV	Cobalt	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	--	--	--
	Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0050	< 0.0050	< 0.0050
GEOCHEM	Alkalinity (total) as CaCO3	30.8	24.5	31	22.8	31.1	23	30.8	23.6	29.7	23.8	29.2	23.9	29.2	23.1	32.3	32.3	32.8
	Alkalinity (Bicarbonate as CaCO3)	30.8	24.5	31	22.8	31.1	23	30.8	23.6	29.7	23.8	29.2	23.9	29.2	23.1	32.3	32.3	32.8
	Magnesium	2.6	2.5	2.6	2	2.5	2	2.5	2	2.4	2.1	2.4	2	2.5	2	3.1	2.8	3.2
	Potassium	2.7	2.6	2.8	2.5	2.7	2.5	2.7	2.4	2.6	2.6	2.7	2.5	2.8	2.6	2.5	2.1	2.5
	Sodium	5	4.7	5.1	4	5	4.1	4.8	4.2	4.8	4.1	4.9	4.7	5	4.3	5.4	4.9	5.5

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

TDS = total dissolved solids

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

**Table 7**  
**Summary of Background Concentrations and Groundwater Protection Standards**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Analyte	Units	MCL	CCR-Rule Specified	Background <sup>(1)</sup>		GWPS <sup>(2)(3)</sup>
				August 2022	January 2023	
Antimony	mg/L	0.006		0.024	0.025	0.006
Arsenic	mg/L	0.01		0.005	0.005	0.01
Barium	mg/L	2		0.13	0.13	2
Beryllium	mg/L	0.004		0.0005	0.0005	0.004
Cadmium	mg/L	0.005		0.001	0.001	0.005
Chromium	mg/L	0.1		0.016	0.016	0.1
Cobalt	mg/L	n/a	0.006	0.014	0.014	0.014
Fluoride	mg/L	4		0.42	0.42	4
Lead	mg/L	n/a	0.015	0.002	0.002	0.015
Lithium	mg/L	n/a	0.040	0.089	0.089	0.089
Mercury	mg/L	0.002		0.00021	0.00021	0.002
Molybdenum	mg/L	n/a	0.10	0.008	0.008	0.1
Selenium	mg/L	0.05		0.006	0.006	0.05
Thallium	mg/L	0.002		0.002	0.002	0.002
Combined Radium-226/228	pCi/L	5		1.70	2.24	5

Notes:

CCR = Coal Combustion Residuals

GWPS = Groundwater Protection Standard

MCL = Maximum Contaminant Level

mg/L = milligrams per liter

n/a = not applicable

pCi/L = picocuries per liter

Statistical analyses were performed per semiannual assessment monitoring event conducted during the reporting period.

Background limits and groundwater protection standards (GWPS) are applicable to the August 2022 and January 2023 events.

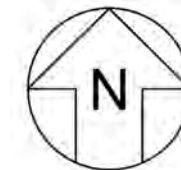
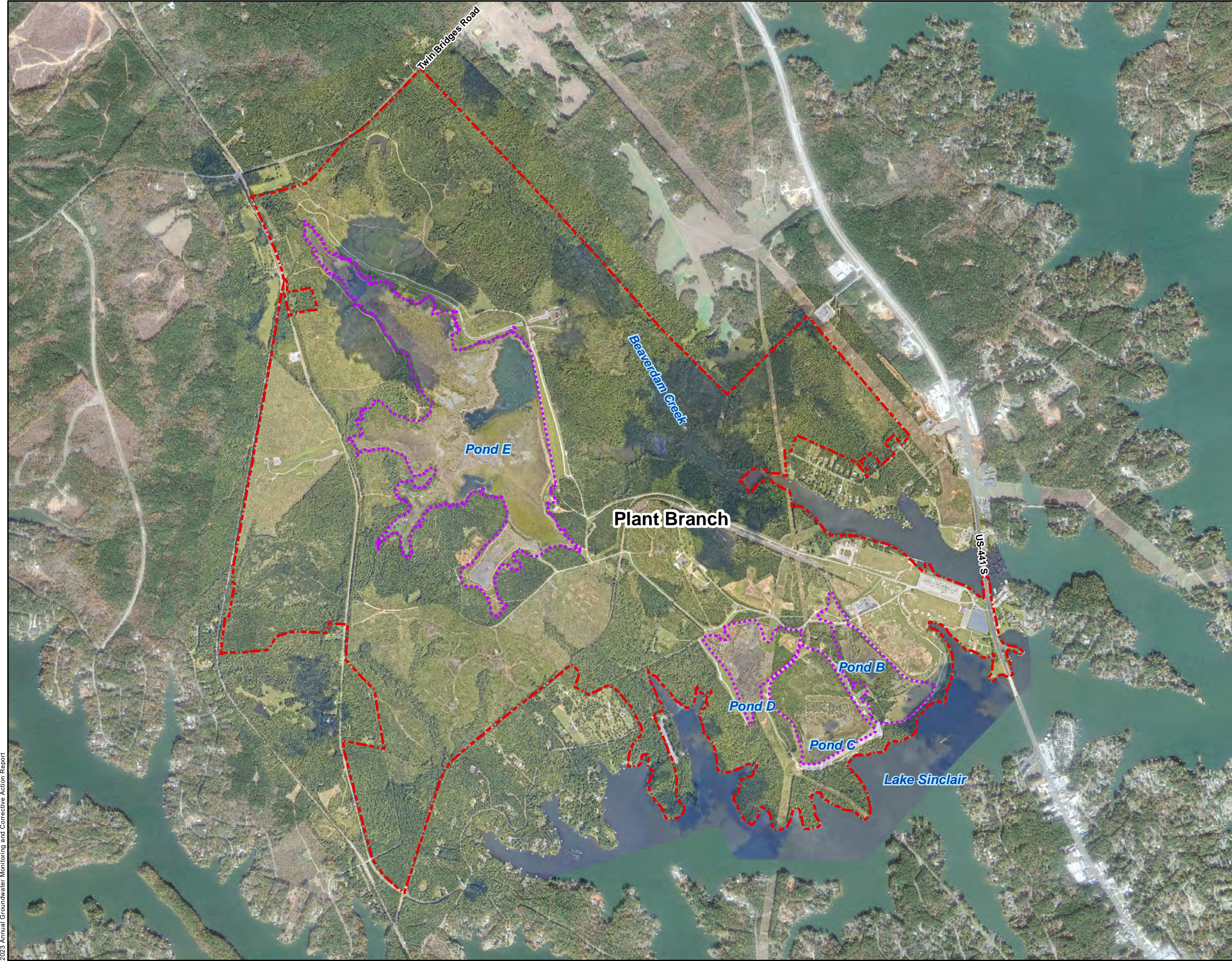
(1) The background limits were used when determining the GWPS under 40 CFR §257.95(h) and Georgia Environmental Protection Division (GA EPD) Rule 391-3-4-.10(6)(a).

(2) Under 40 CFR §257.95(h)(1-3) the GWPS is: (i) the maximum contaminant level (MCL) established under 141.62 and 141.66 of this title; (ii) where an MCL has not been established a rule-specific GWPS is used; or (iii) background concentrations for constituents where the background level is higher than the MCL or rule-specified GWPS.

(3) On February 22, 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPSs where an MCL has not been established, except when site-specific background concentrations of constituents is higher.

# FIGURES





**LEGEND**  
 - - - Plant Branch Property Boundary  
 - - - Approximate Ash Pond Boundary



Notes:  
 1. Coordinate System: NAD 1983 State Plane Georgia West\_FIPS (U.S. Feet).  
 2. Property Boundary Provided by Southern Company Services.  
 3. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, August 2022.



**SITE LOCATION MAP**

GEORGIA POWER COMPANY  
 PLANT BRANCH AP-BCD  
 PUTNAM COUNTY, GEORGIA

Prepared For:  Georgia Power

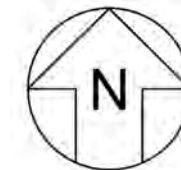
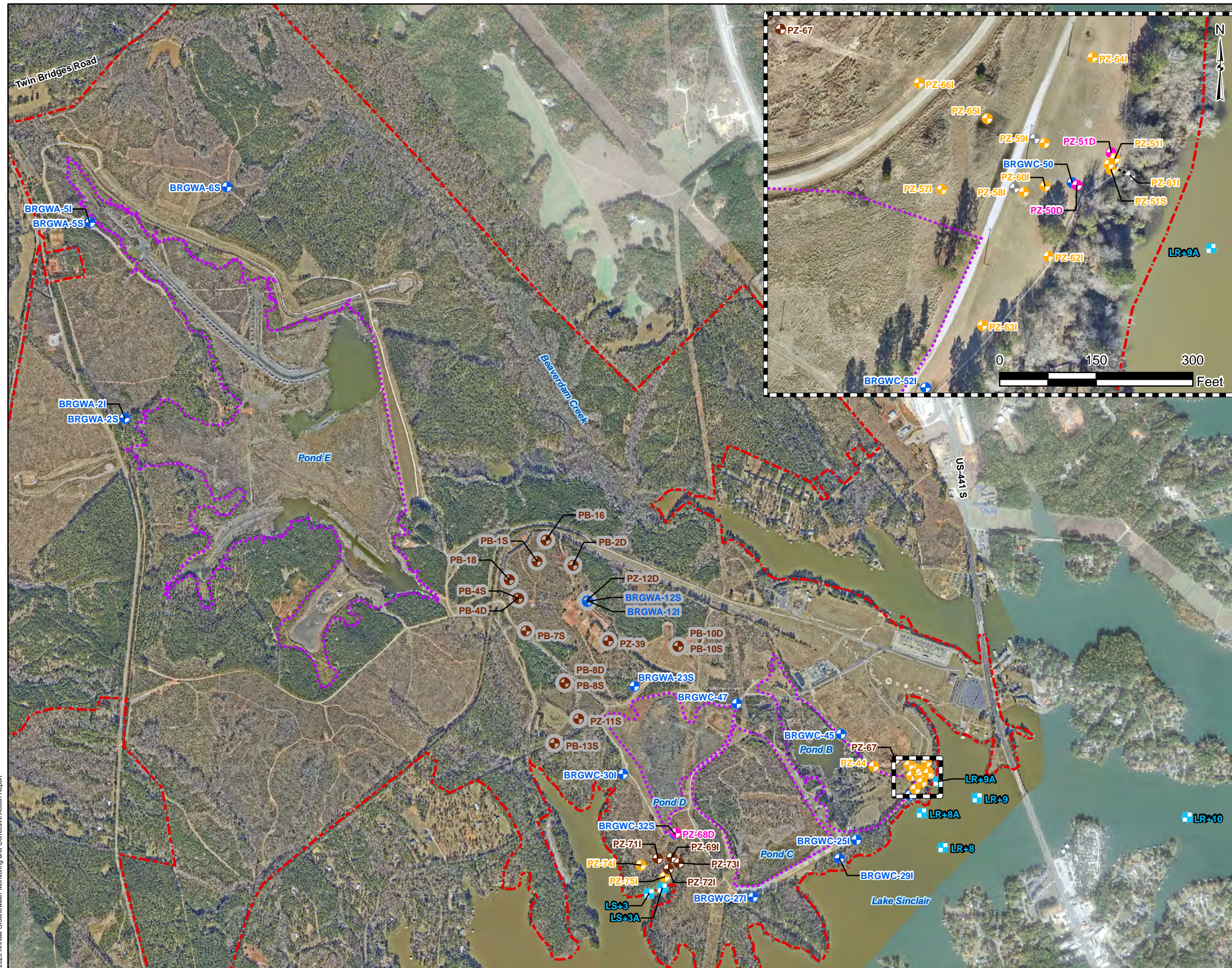
Prepared By:  Geosyntec  
 consultants

KENNESAW, GA

JULY 2023

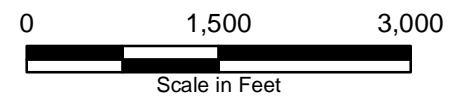
**FIGURE**  
 1





- LEGEND**
- Detection Monitoring Well
  - Horizontal Assessment Monitoring Well
  - Vertical Assessment Monitoring Well
  - Angled Well Screen
  - Surface Water
  - Piezometer
  - Detection Monitoring Well (Abandoned)
  - Piezometer (Abandoned)
  - Plant Branch Property Boundary
  - Approximate Ash Pond Boundary

Notes:  
 1. Property Boundary Provided by Southern Company Services.  
 2. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**MONITORING WELL NETWORK AND SURFACE WATER LOCATION MAP**

GEORGIA POWER COMPANY  
 PLANT BRANCH AP-BCD  
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

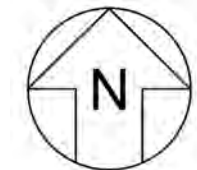
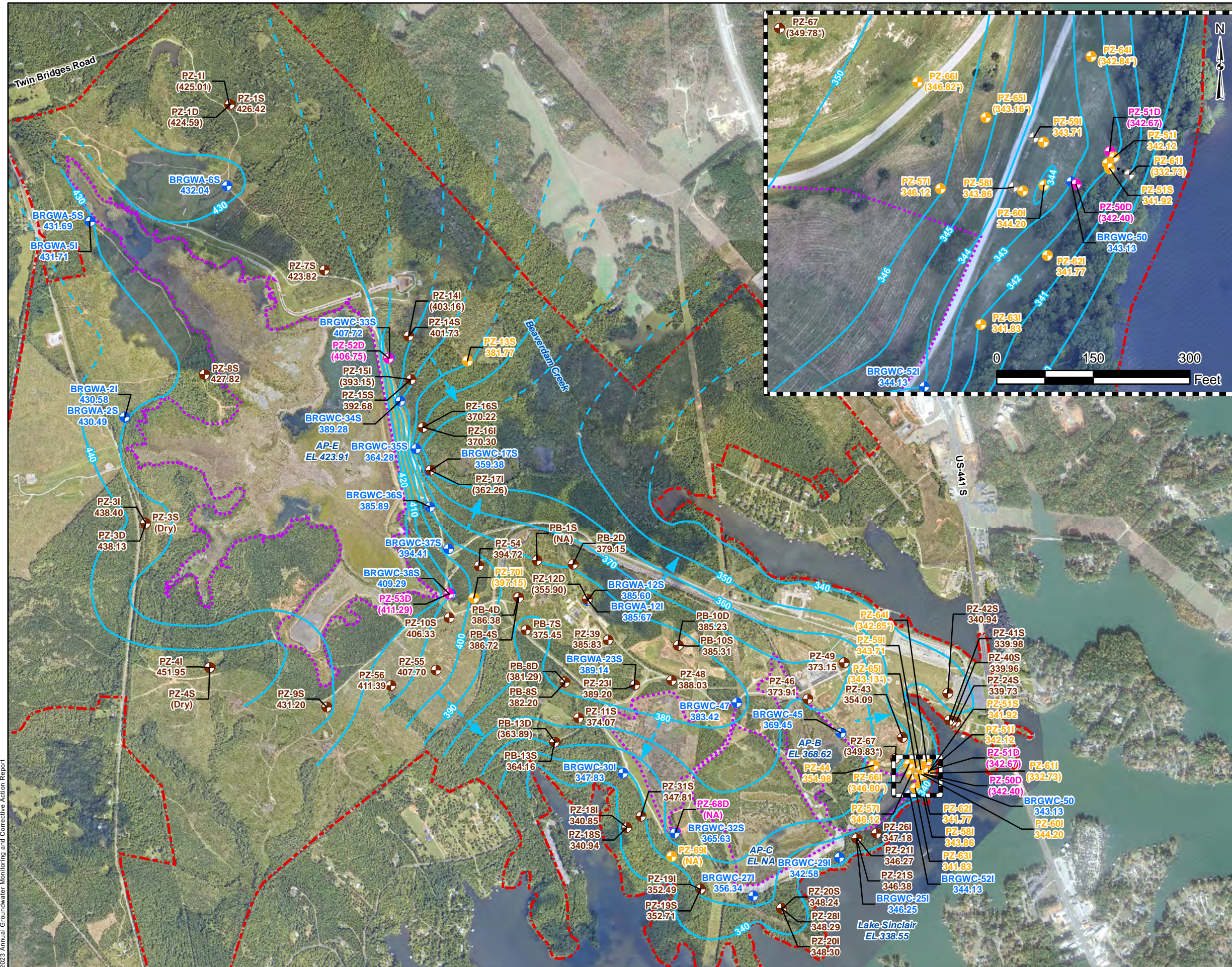
Prepared By: Geosyntec consultants

KENNESAW, GA

JULY 2023

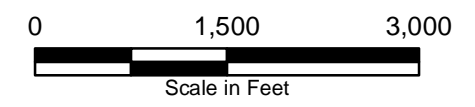
**FIGURE 2**





- LEGEND**
- Detection Monitoring Well
  - Horizontal Assessment Monitoring Well
  - Vertical Assessment Monitoring Well
  - Piezometer
  - Angled Well Screen
  - Groundwater Elevation Iso-Contour
  - - - Groundwater Elevation Iso-Contour (Inferred)
  - ▶ Approximate Groundwater Flow Direction
  - - - Plant Branch Property Boundary
  - · - · - Approximate Ash Pond Boundary

- Notes:**
1. Water level elevation recorded on August 22, 2022 for semi-annual groundwater event.
  2. Wells PZ-64I, PZ-65I, PZ-66I, PZ-67, PZ-68D, and PZ-69I were installed in September 2022 and were not part of the semi-annual groundwater event. \* - indicates wells PZ-64I, PZ-65I, PZ-66I, and PZ-67 water level elevation was recorded on December 14, 2022.
  3. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
  4. Groundwater iso-contours based on linear interpolation and extrapolation from known groundwater elevation data, and topographic elevations.
  5. Groundwater elevations in parentheses were not used to make the groundwater contours because these wells are screened at a different elevation in the formation/aquifer.
  6. NA - not available
  7. Coordinate System: NAD 1983 State Plane Georgia West\_FIPS (U.S. Feet).
  8. Property Boundary Provided by Southern Company Services.
  9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, August 2022.

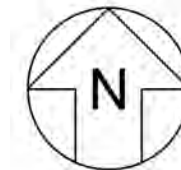
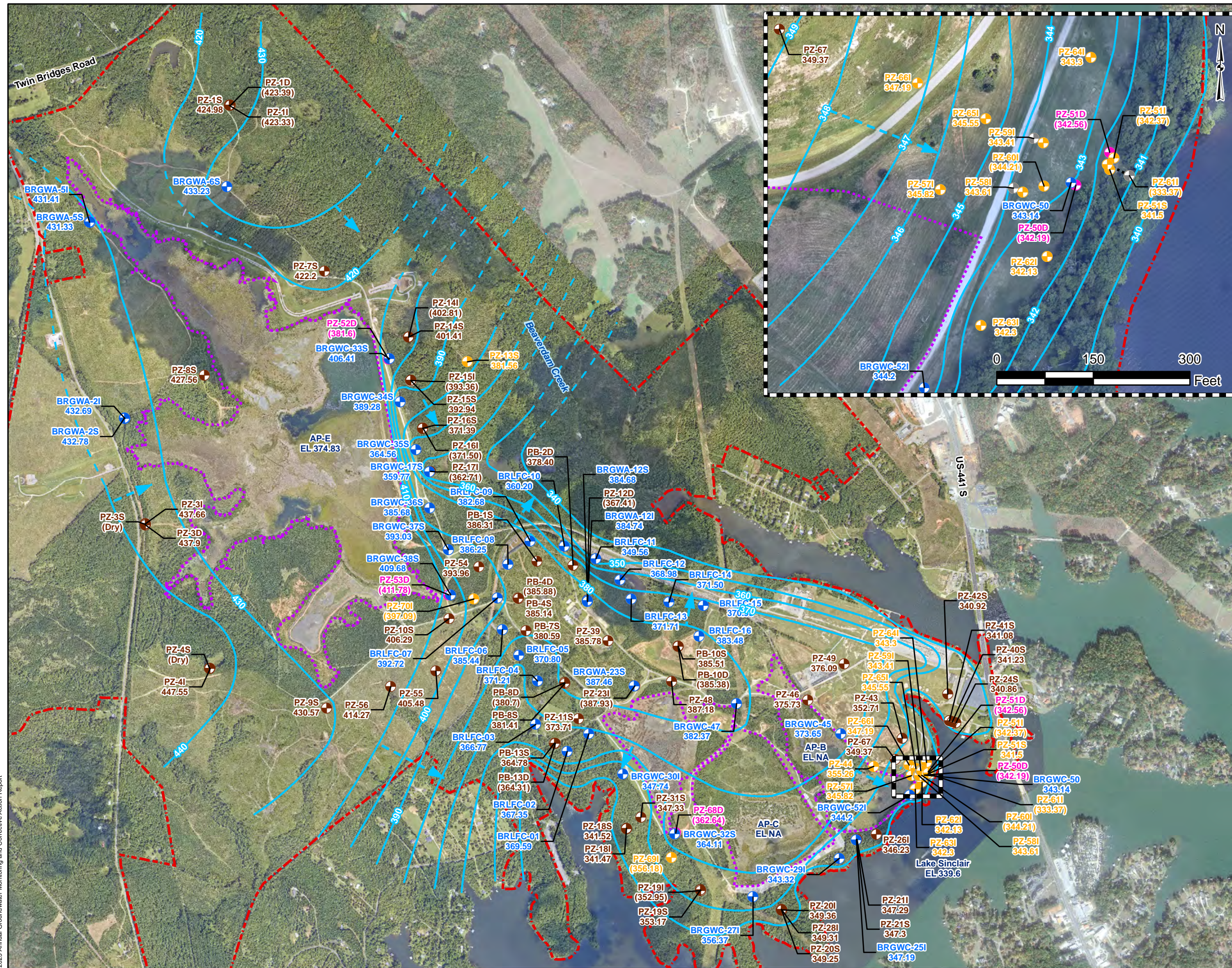


**POTENTIOMETRIC SURFACE CONTOUR  
MAP - AUGUST 2022**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

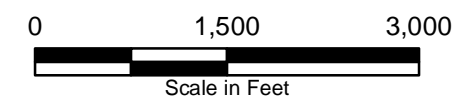
Prepared For:		<b>FIGURE 3</b>
Prepared By:		
KENNESAW, GA	JULY 2023	





- LEGEND**
- Detection Monitoring Well
  - Horizontal Assessment Monitoring Well
  - Vertical Assessment Monitoring Well
  - Piezometer
  - Angled Well Screen
  - Groundwater Elevation Iso-Contour
  - Groundwater Elevation Iso-Contour (Inferred)
  - Approximate Groundwater Flow Direction
  - Plant Branch Property Boundary
  - Approximate Ash Pond Boundary

- Notes:**
1. Water level elevation recorded on January 23, 2023 for semi-annual groundwater event.
  2. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
  3. Groundwater iso-contours based on linear interpolation and extrapolation from known groundwater elevation data, and topographic elevations.
  4. Groundwater elevations in parentheses were not used to make the groundwater contours because these wells are screened at a different elevation in the formation/aquifer.
  5. Coordinate System: NAD 1983 State Plane Georgia West\_FIPS (U.S. Feet).
  6. Property Boundary Provided by Southern Company Services.
  7. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, August 2022.



**POTENTIOMETRIC SURFACE CONTOUR MAP - JANUARY 2023**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA

JULY 2023

**FIGURE**  
**4**



## APPENDIX A

# Well Design, Installation, and Development Report, Plant Branch Ash Pond BCD (AP- BCD)



*Prepared for*

**Georgia Power Company**  
241 Ralph McGill Blvd NE  
Atlanta, Georgia 30308

**WELL DESIGN, INSTALLATION, AND  
DEVELOPMENT REPORT  
PLANT BRANCH ASH PONDS B, C, & D (AP-BCD)**

*Prepared by*

**Geosyntec**   
consultants

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200  
Kennesaw, Georgia 30144

Project Number GW8862

July 2023



## CERTIFICATION PAGE

I hereby certify that this *Well Design, Installation, and Development Report – Plant Branch AP-BCD* has been prepared by, or under the direct supervision of, a Qualified Groundwater Scientist with Geosyntec Consultants and is in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10.

According to 391-3-4-.01, a Qualified Groundwater Scientist is “a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable individuals to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.”



---

Date: July 26, 2023  
Joseph Ivanowski, P.G.  
Georgia Professional Geologist No. 2140  
*Senior Geologist*  
*Geosyntec Consultants*

## TABLE OF CONTENTS

1.	INTRODUCTION .....	1
2.	DRILLING AND WELL INSTALLATION.....	2
	2.1 Drilling Method .....	2
	2.2 Screened Interval .....	2
	2.3 Well Casings and Screens.....	2
	2.4 Well Intake Design .....	3
	2.5 Filter Pack.....	3
	2.6 Annular Seal .....	4
	2.7 Cap and Protective Casing.....	4
3.	WELL DEVELOPMENT .....	5
4.	SURVEY .....	6
5.	REFERENCES .....	7

## LIST OF TABLES

Table 1	Summary of Well Construction Details
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## LIST OF FIGURES

Figure 1	AP-D Groundwater Monitoring Network Map
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## LIST OF APPENDICES

Appendix A	Well Driller Performance Bonds
Appendix B	Boring and Well Construction Logs
Appendix C	Well Development Forms
Appendix D	Certified Well Survey Data

## LIST OF ACRONYMS

AP	Ash Pond
ACC	Atlantic Coast Consulting
ASTM	American Society for Testing and Materials
CCR	coal combustion residuals
CFR	Code of Federal Regulations
CFS	Civil Field Services
DO	dissolved oxygen
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
NAD	North America Datum
NAVD	North American Vertical Datum
NSF	National Sanitation Foundation
ORP	oxygen reduction potential
PVC	polyvinyl chloride
SCS	Southern Company Services
TOC	top of casing
US EPA	United States Environmental Protection Agency

## 1. INTRODUCTION

Georgia Power Company's (Georgia Power) Plant Branch (Plant) is located near Milledgeville and Eatonton, in Putnam County, Georgia. Over the course of power generation at the Plant, five Coal Combustion Residuals (CCR) ponds, identified as Ash Ponds A, B, C, D, and E were utilized. Ash Ponds B, C, and D (Site) are monitored collectively as a single groundwater monitoring unit (AP-BCD). This report provides details regarding the design, installation, and development of three (3) piezometers (PZ-71I, PZ-72I, and PZ-75I) and two (2) assessment monitoring wells (PZ-73I and PZ-74I), to supplement the current groundwater monitoring system at AP-BCD. These newly installed piezometers and assessment monitoring wells are located near AP-D and are shown on **Figure 1**.

The well installations were completed to meet the requirements promulgated in the United States Environmental Protection Agency (USEPA) CCR rule [40 Code of Federal Regulations (CFR) Part 257, Subpart D], specifically 40 CFR §257.91(e)(1) and Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10.

## 2. DRILLING AND WELL INSTALLATION

Well installation and development activities were performed according to accepted industry standards and following guidelines within the *Manual for Groundwater Monitoring* (GA EPD, 1991). Well drilling, installation, and surface completion activities were performed by Cascade Drilling, Inc. of Aiken, South Carolina under contract with, and the supervision of, Southern Company Services (SCS) Civil Field Services (CFS) personnel. In accordance with the Georgia Water Well Standards Act, the driller was required to have an insurance bond on file with the State of Georgia at the time of drilling. A copy of this bond is provided in **Appendix A**. CFS personnel provided oversight of the drilling and installation efforts. A professional geologist employed with Geosyntec Consultants (Geosyntec) and registered to practice in the State of Georgia documented the drilling and installation efforts to record observations, soil and rock descriptions, subsurface stratigraphy, groundwater elevations, and other field activities.

PZ-71I through PZ-75I were installed and completed in May and June 2023. The locations of these wells are shown on **Figure 1**. Well construction details are provided in **Table 1** and boring and well construction logs are included in **Appendix B**.

### 2.1 Drilling Method

The boreholes were advanced using rotasonic drilling techniques with continuous core collection. A track mounted Terra Sonic 150 and a track mounted Terra Sonic 150CC drill rig were used to install the wells, using a nominal 6-inch diameter outer drill casing and a 4-inch diameter core barrel. Care was taken so that the drilling methods did not introduce contamination of the groundwater from surface activities.

### 2.2 Screened Interval

Details regarding well screened intervals are provided in **Table 1**. Wells are screened in the uppermost water bearing unit of the Site. The wells are screened from approximately 353 to 320 feet elevation [referenced to the North American Vertical Datum of 1988 (NAVD 88)]. All wells are constructed with a 10-foot well screen segment.

### 2.3 Well Casings and Screens

The wells are constructed of 2-inch inner diameter Schedule 40 polyvinyl chloride (PVC) casing with flush-threaded fittings. The wells were installed with a 10-foot nominal length U-Pack<sup>®</sup> dual-wall well screen with 0.010-inch slots. The casing and screen



arrived pre-cleaned and packaged by the manufacturer. The U-Pack well screen was constructed onsite by packing sand between slotted PVC and the well screen. Well construction materials are sufficiently durable to resist chemical and physical degradation and do not interfere with the quality of groundwater samples. Casing and screen are flush-threaded. Solvent or glue was not used to construct the wells. A threaded bottom cap was attached to the bottom of the screen. The PVC products used were American Society for Testing and Materials (ASTM) and National Sanitation Foundation (NSF) rated. Details regarding well screened intervals are provided in **Table 1**.

#### **2.4 Well Intake Design**

The wells were designed and constructed to: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the well; and (3) ensure sufficient structural integrity to prevent collapse of the well. The annular space between the face of the formation and the screen was filled to minimize passage of formation materials into the well. A filter pack of clean, well-rounded, quartz sand was installed in the well. The 0.01-inch slot size was selected to minimize the inflow of formation material without impairing influent groundwater flow.

#### **2.5 Filter Pack**

Highly Pure Quartzite manufactured by Southern Products and Silica Co. was used as the filter pack material for the well. The filter pack material meets the ASTM D5092 uniformity coefficient specification of 2.5 or less, with a uniformity coefficient of 1.6.

Filter pack material was placed within the U-Pack well screen and in the annular space between the outside of the screen and the borehole wall to ensure an adequate thickness of filter pack material between the well and the formation. Placement of the filter pack between the borehole wall and PVC was placed via gravity-pouring. Filter pack material placed in the annular space outside of the well screen extended a minimum of two (2) feet above the top of screen. No bridging occurred during filter pack placement.

Upon placement of the filter pack, the wells were pumped with a submersible pump to ensure settlement of the filter pack. The top of filter pack depth was measured following pumping to confirm appropriate extension of filter sand above the screen. The depths of top of filter pack were measured and recorded on the well construction logs provided in **Appendix B**.

## **2.6 Annular Seal**

A minimum of two feet of bentonite chips (PelPlug time-release-coated 3/8-inch bentonite pellets) were placed immediately above the filter pack by gravity-pouring into the annular space and hydrated per manufacturer's specifications. A tremie pipe was used to probe the annular space to ensure that no bridging occurred. In cases where the bentonite seal extended above the estimated water table surface, the bentonite was hydrated with potable water for a duration meeting the manufacturer's specifications prior to grouting the remaining annulus.

The annulus above the bentonite seal was grouted with cement/bentonite grout placed via tremie pipe (initial grouting) and direct pour methods (for topping off) from the top of the bentonite seal. During grouting, care was taken to assure that the bentonite seal was not disturbed by locating the base of the tremie pipe approximately 2 feet above the bentonite seal and injecting grout at low pressure/velocity. A cement apron 4-feet by 4-feet by 4-inches was poured around the wells. The pads were mounded slightly outward to direct surface drainage away from the wells.

## **2.7 Cap and Protective Casing**

The well risers were fitted with a locking cap and a lockable cover. A one-quarter inch vent hole was drilled into the PVC riser pipe to provide an avenue for the escape of gas. The protective cap guards the casing from damage and the locking cap serves as a security device to prevent well tampering. Bollards were installed around the four corners of the concrete pads to protect the wells.

A weep hole was drilled in the outer protective casing near the bottom above the concrete pad. Pea gravel was placed inside the protective casing between the riser pipe and the outer casing. The wells were clearly marked with the proper well identification number on the stand-up casing.

### 3. WELL DEVELOPMENT

The monitoring wells were developed by Atlantic Coast Consulting (ACC) using a combination of surging and pumping to (i) restore the natural hydraulic conductivity of the formation, and (ii) to remove fine-grained sediment to ensure low-turbidity groundwater samples. The wells were alternately surged and purged until visually clear of particulates. Turbidity, pH, temperature, specific conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO) measurements were recorded to ensure that each well was fully developed, and field parameters were stabilized. The well development field forms provided by ACC are included in **Appendix C**.

#### 4. SURVEY

Upon completion of the well installations, horizontal locations and vertical elevations were surveyed by GEL Solutions, a Georgia-licensed surveyor and certified on June 01 and July 10, 2023. The top of the PVC well casings [top of casing (TOC) elevations] and the survey pin installed at the well pads were surveyed to within 0.5-foot horizontal accuracy and to 0.01-foot vertical accuracy. The horizontal location (i.e., northings and eastings) was recorded in feet relative to the North America Datum of 1983 (NAD) with the vertical elevation recorded in feet relative to the North American Vertical Datum of 1988. Certified survey data are provided in the well construction table (**Table 1**). A copy of the certified well survey data for the wells is provided in **Appendix D**.

## 5. REFERENCES

Georgia Environmental Protection Division (GA EPD), Georgia Department of Natural Resources, 1991. *Manual for Groundwater Monitoring*. September 1991.

Geosyntec, 2023. *Groundwater Monitoring Plan – Plant Branch Ash Pond B, Ash Pond C, Ash Pond D (AP-BCD)*. July 2023 revision.

United States Environmental Protection Agency. 2015a. 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 2015

# TABLE

**Table 1**  
 Summary of Well Construction Details  
 Plant Branch AP-BCD  
 Putnam County, Georgia

Well ID	Ash Pond	Installation Date	Northing <sup>(1)</sup>	Easting <sup>(1)</sup>	Ground Surface Elevation <sup>(2)</sup> (ft NAVD88)	Top of Casing Elevation (ft NAVD88)	Top of Screen Elevation (ft NAVD88)	Bottom of Screen Elevation (ft NAVD88)	Well Depth (ft bgs) <sup>(3)</sup>
PZ-71I	AP-D	5/2/2023	1160295.35	2558230.83	382.57	385.34	352.82	342.82	40.0
PZ-72I	AP-D	5/9/2023	1160133.29	2558394.65	365.91	368.57	342.01	332.01	34.2
PZ-73I	AP-D	5/10/2023	1160226.37	2558559.30	349.87	352.63	334.82	324.82	25.3
PZ-74I	AP-D	5/24/2023	1160189.30	2557970.94	368.25	371.13	330.50	320.50	48.0
PZ-75I	AP-D	6/27/2023	1160009.37	2558343.03	354.88	357.86	337.88	327.88	27.4

Notes:

AP = ash pond

ID = identification

ft = feet

bgs = below ground surface

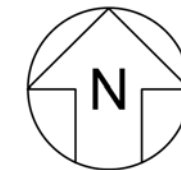
(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Survey was completed by GEL Solutions and certified June 01 and July 10 2023

(2) Vertical elevations are referenced to the North American Vertical Datum (NAVD) of 1988. Ground surface elevation defined at the survey nail installed within the well pad.

(3) Total well depth accounts for 4-inch sump.

# FIGURE





- LEGEND**
- Assessment Monitoring Well
  - Detection Monitoring Well
  - Piezometer
  - Plant Branch Property Boundary
  - Approximate Ash Pond Boundary

Notes:

1. Coordinate System: NAD 1983 State Plane Georgia West\_FIPS (U.S. Feet).
2. Property Boundary Provided by Southern Company Services.
3. Aerial Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community 2019 and Georgia Power Company, January 2023.



**AP-D Groundwater Monitoring Network Map**

GEORGIA POWER COMPANY  
PLANT BRANCH  
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA      JULY 2023

**FIGURE**  
**1**



# APPENDIX A

## Well Driller Performance Bonds



# Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson, William M. Smith, Derek Sabo, Charla M. Boadle**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

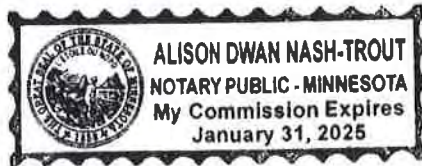
IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.



By *Paul J. Brehm*  
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA  
HENNEPIN COUNTY

On this twenty-seventh day of April, 2020, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.



*Alison Nash-Trout*  
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 12 day of April, 2021.

This Power of Attorney expires  
January 31, 2025



*Kara Barrow*  
Kara Barrow, Secretary

CONTINUATION  
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. 800033976

dated effective 09/27/2017  
(MONTH-DAY-YEAR)

on behalf of Ricky Davis / Cascade Drilling, L.P.  
(PRINCIPAL)

and in favor of Department of Natural Resources, State of Georgia  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on 06/30/2021  
(MONTH-DAY-YEAR)

and ending on 06/30/2023  
(MONTH-DAY-YEAR)

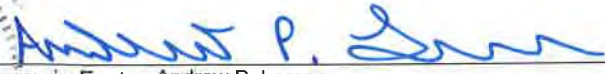
Amount of bond Thirty Thousand and 00/100 Dollars (\$30,000.00)

Description of bond Performance Bond for Water Well Contractors

**PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.**

Signed and dated on April 12th, 2021  
(MONTH-DAY-YEAR)

Atlantic Specialty Insurance Company

By   
Attorney-in-Fact Andrew P. Larsen

Parker, Smith & Feek, Inc.

Agent  
2233 112th Ave NE Bellevue, WA 98004

Address of Agent

425-709-3600

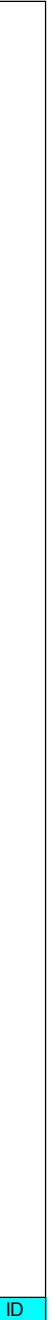
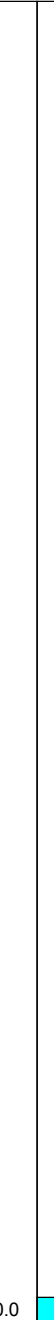
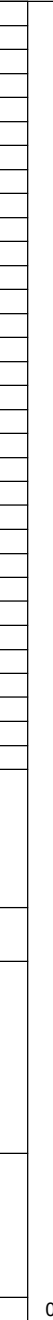
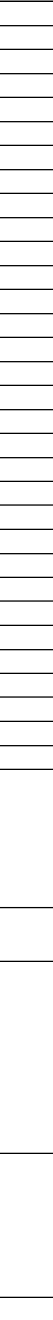
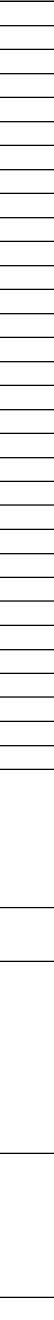
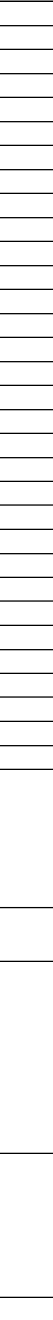
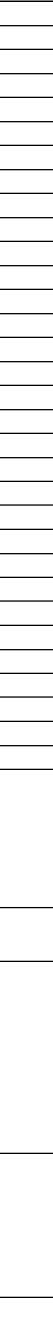
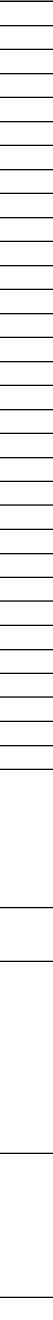
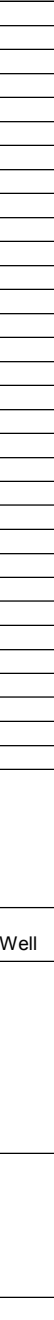
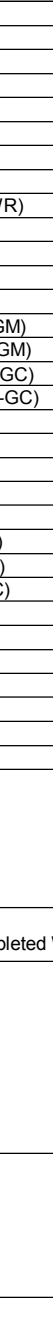
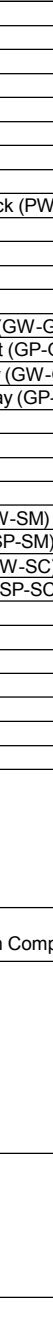
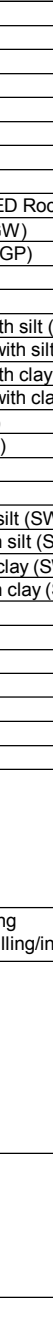
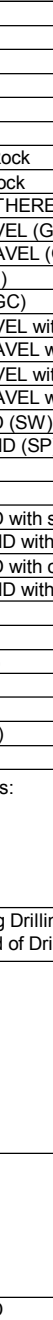
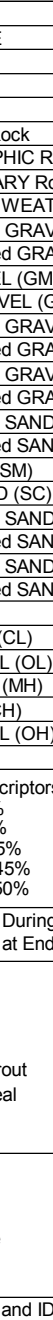
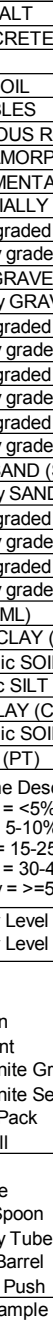
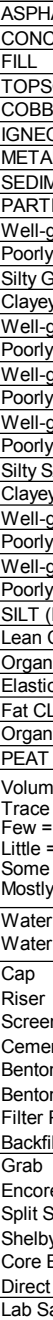
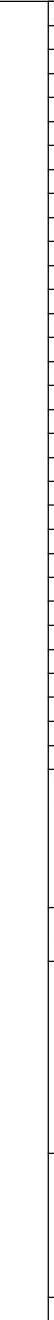
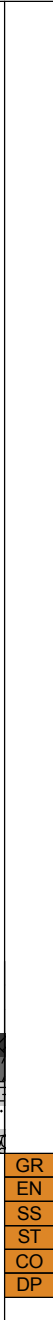
Telephone Number of Agent

# APPENDIX B

## Boring and Well Construction Logs

**BORING AND WELL LOG LEGEND**

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	Date & Time	Blow Counts	Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample
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- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- COBBLES
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- PARTIALLY WEATHERED Rock (PWR)
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with clay (GW-GC)
- Poorly graded GRAVEL with clay (GP-GC)
- Well-graded SAND (SW)
- Poorly graded SAND (SP)
- Silty SAND (SM)
- Clayey SAND (SC)
- Well-graded SAND with silt (SW-SM)
- Poorly graded SAND with silt (SP-SM)
- Well-graded SAND with clay (SW-SC)
- Poorly graded SAND with clay (SP-SC)
- SILT (ML)
- Lean CLAY (CL)
- Organic SOIL (OL)
- Elastic SILT (MH)
- Fat CLAY (CH)
- Organic SOIL (OH)
- PEAT (PT)
- Volume Descriptors:  
Trace = <5%  
Few = 5-10%  
Little = 15-25%  
Some = 30-45%  
Mostly = >=50%
- Water Level During Drilling
- Water Level at End of Drilling/in Completed Well
- Cap
- Riser
- Screen
- Cement
- Bentonite Grout
- Bentonite Seal
- Filter Pack
- Backfill
- Grab
- Encore
- Split Spoon
- Shelby Tube
- Core Barrel
- Direct Push
- Lab Sample and ID

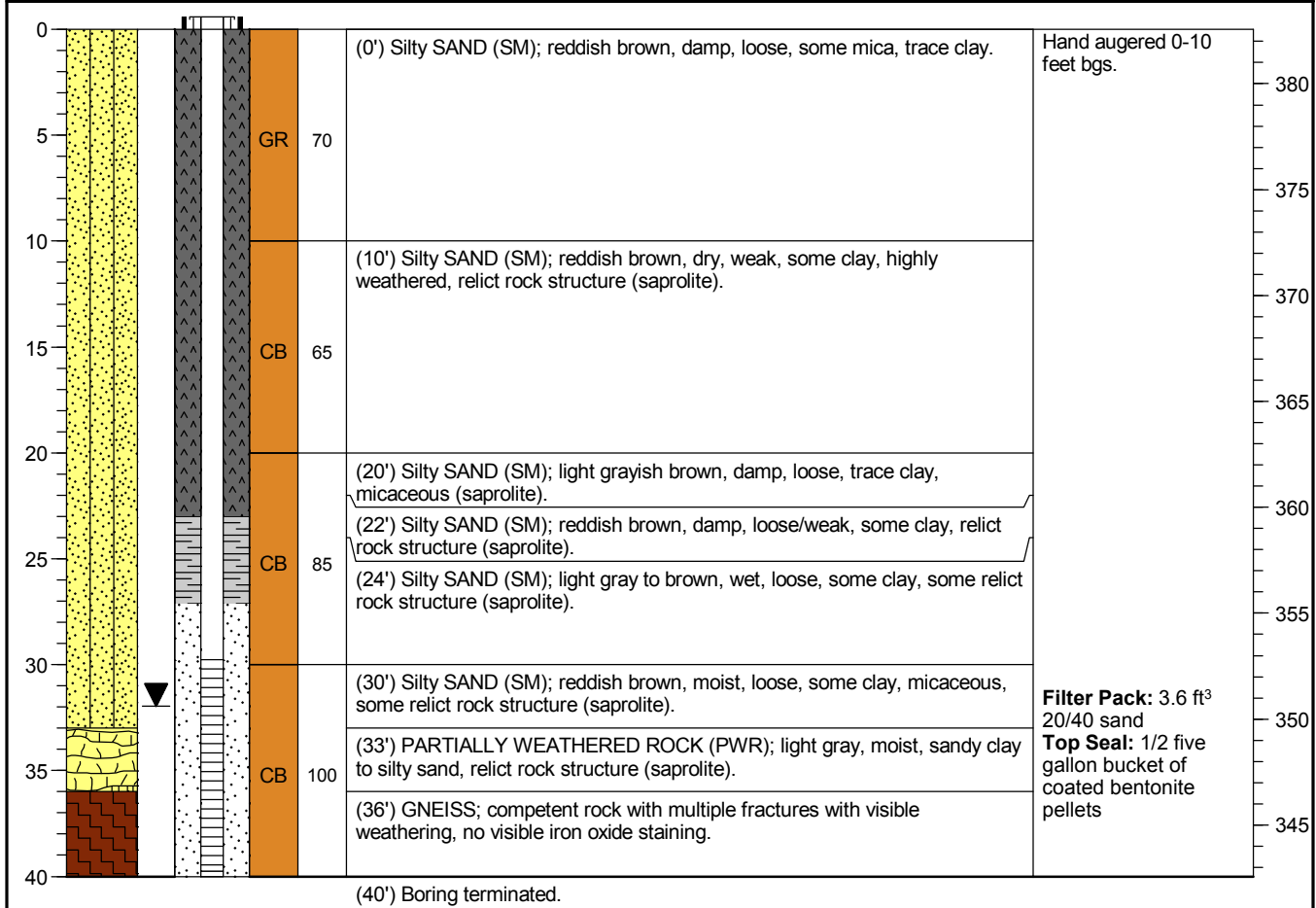
0.0

ID

NOTES:

Drilling Start Date: <b>05/02/2023</b>	Boring Depth (ft): <b>40</b>	Well Depth (ft BGS): <b>40</b>
Drilling End Date: <b>05/02/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>31.81</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150</b>	Ground Surface Elevation: <b>382.57 NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>C. Tindel</b>	Top of Casing Elevation: <b>385.34 NAV88</b>	Seal Material(s): <b>Grout, Bentonite</b>
Logged By: <b>D. Kegley</b>	North, East (Y,X): <b>1160295.35, 2558230.83</b>	Filter Pack: <b>20/40 Sand</b>

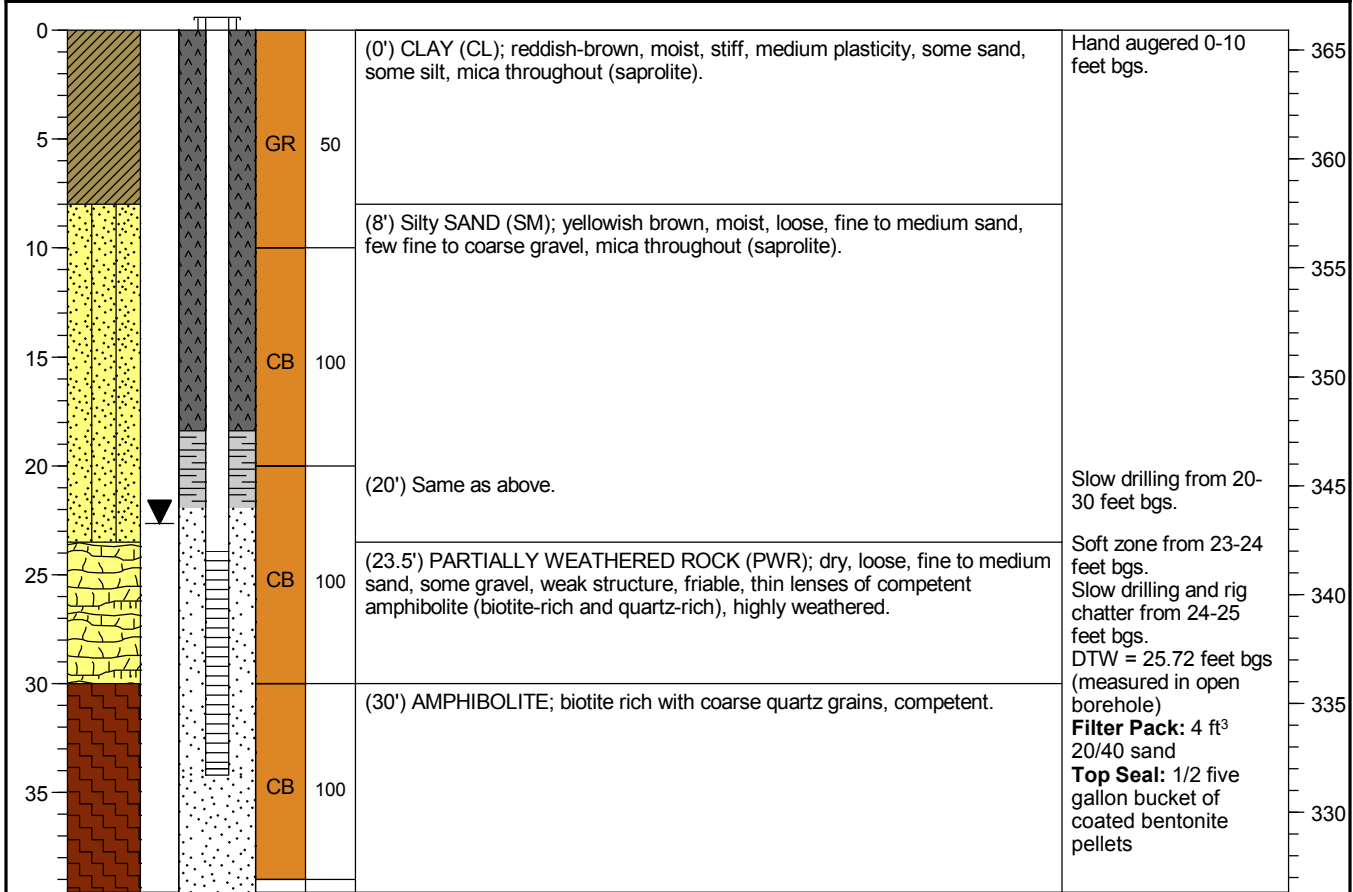
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.77 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from ground surface (BGS).

Drilling Start Date: <b>05/09/2023</b>	Boring Depth (ft): <b>39.6</b>	Well Depth (ft BGS): <b>34.2</b>
Drilling End Date: <b>05/09/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>22.73</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150 CC</b>	Ground Surface Elevation: <b>365.91 NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>C. Franklin</b>	Top of Casing Elevation: <b>368.57 NAV88</b>	Seal Material(s): <b>Grout, Bentonite</b>
Logged By: <b>C. Cain/T. Kessler</b>	North, East (Y,X): <b>1160133.29, 2558394.65</b>	Filter Pack: <b>20/40 Sand</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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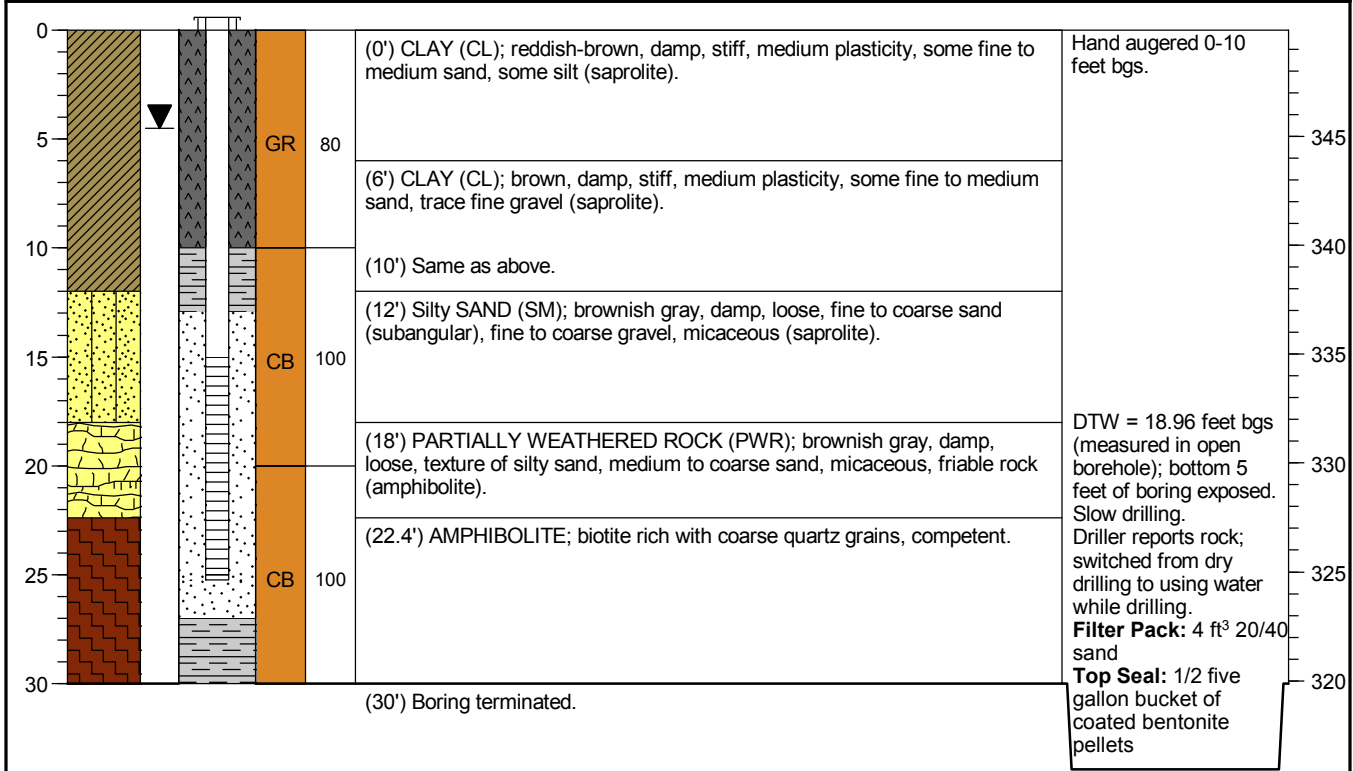


NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.66 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from below ground surface (BGS).



Drilling Start Date: <b>05/10/2023</b>	Boring Depth (ft): <b>30</b>	Well Depth (ft BGS): <b>25.25</b>
Drilling End Date: <b>05/10/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>4.65</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150 CC</b>	Ground Surface Elevation: <b>349.87 NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>C. Franklin</b>	Top of Casing Elevation: <b>352.63 NAV88</b>	Seal Material(s): <b>Grout, Bentonite</b>
Logged By: <b>C. Cain</b>	North, East (Y,X): <b>1160226.37, 2558559.3</b>	Filter Pack: <b>20/40 Sand</b>

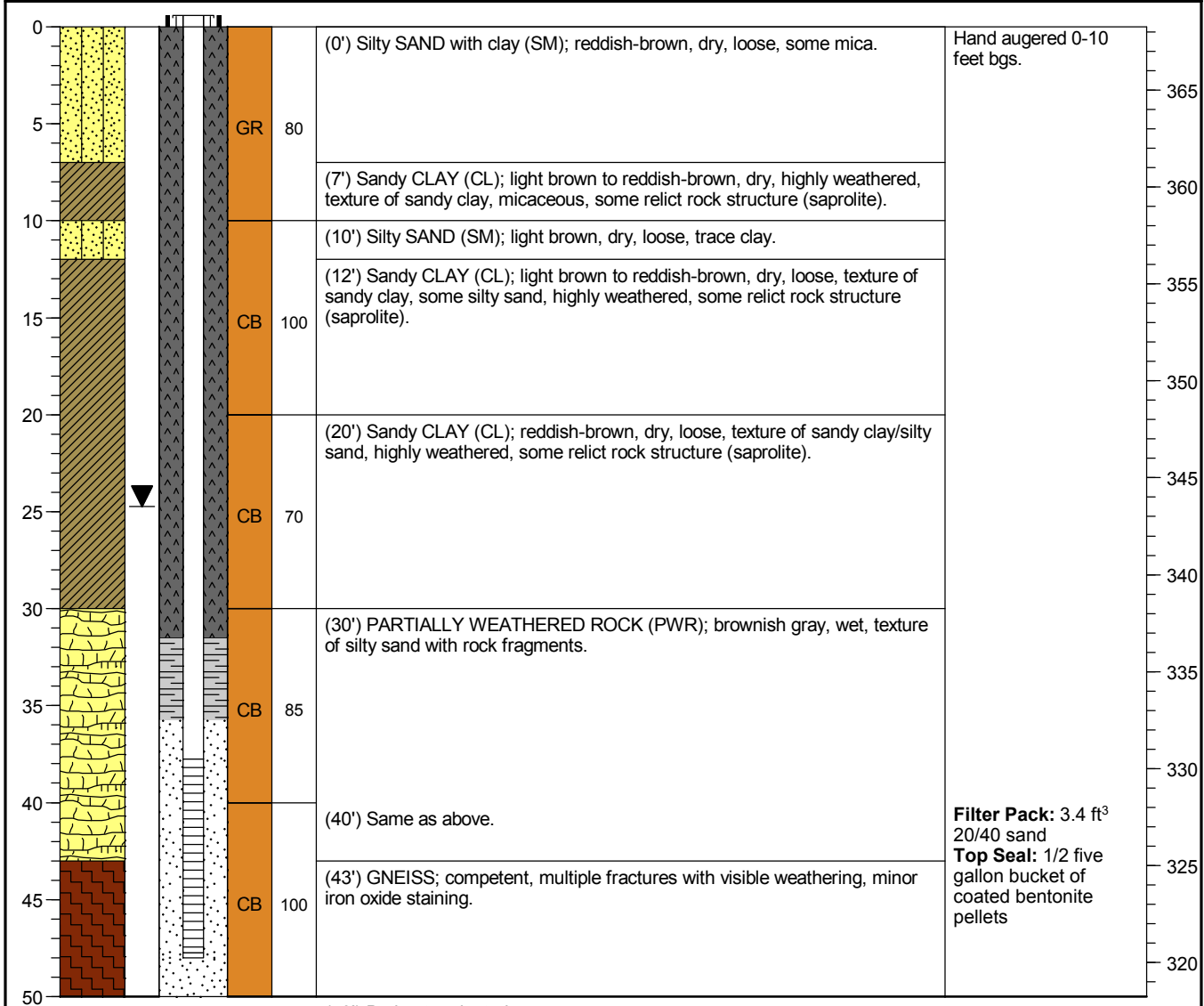
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.76 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from below ground surface (BGS).

Drilling Start Date: <b>05/24/2023</b>	Boring Depth (ft): <b>50</b>	Well Depth (ft BGS): <b>48</b>
Drilling End Date: <b>05/24/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>25.08</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150 CC</b>	Ground Surface Elevation: <b>368.25 NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>B. Griffis</b>	Top of Casing Elevation: <b>371.13 NAV88</b>	Seal Material(s): <b>Grout, Bentonite</b>
Logged By: <b>D. Kegley</b>	North, East (Y,X): <b>1160189.3, 2557970.94</b>	Filter Pack: <b>20/40 Sand</b>

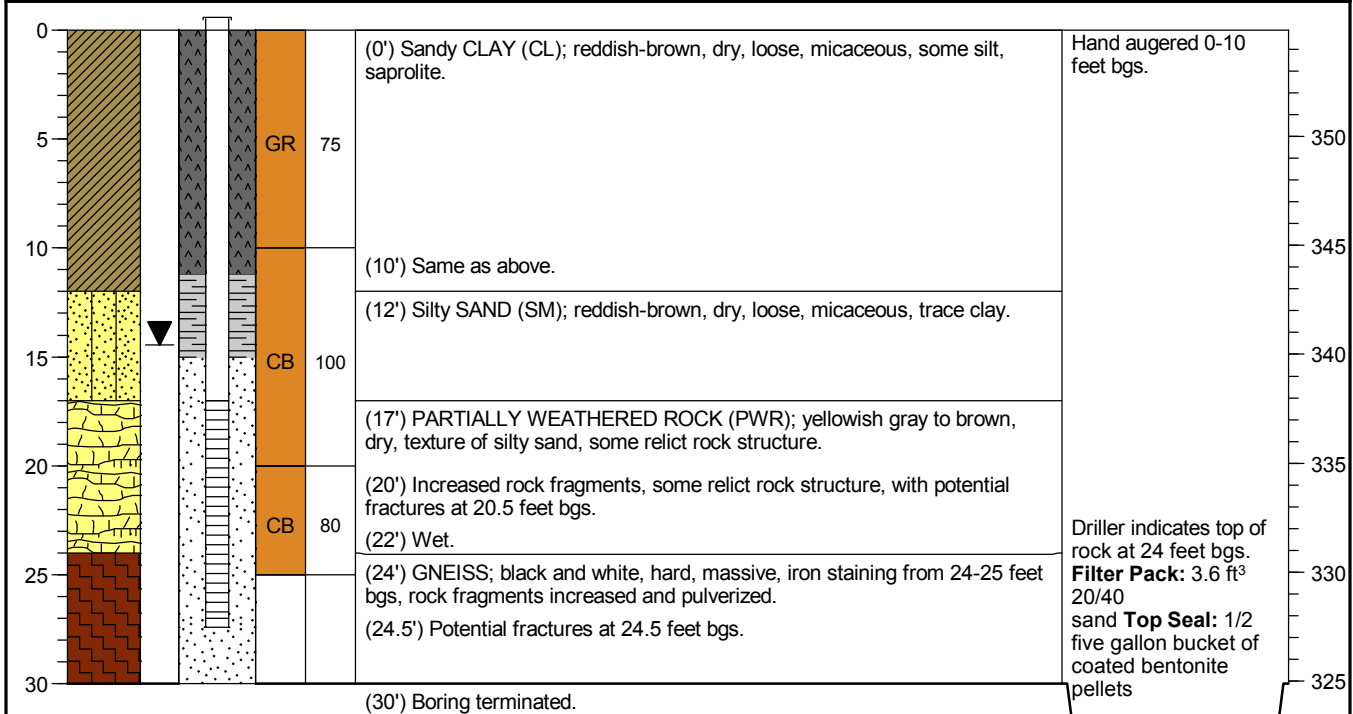
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.88 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from below ground surface (BGS).

Drilling Start Date: <b>06/26/2023</b>	Boring Depth (ft): <b>30</b>	Well Depth (ft BGS): <b>27.4</b>
Drilling End Date: <b>06/27/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>14.67</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150 CC</b>	Ground Surface Elevation: <b>354.88 NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>B. Griffis</b>	Top of Casing Elevation: <b>357.86 NAV88</b>	Seal Material(s): <b>Grout, Bentonite</b>
Logged By: <b>D. Kegley</b>	North, East (Y,X): <b>1160009.37, 2558343.03</b>	Filter Pack: <b>20/40 Sand</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
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NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+2.98 feet stickup) completed with aboveground protective casing set in concrete. Well depth measured from below ground surface (BGS).

# APPENDIX C

## Well Development Forms

**Atlantic Coast Consulting, Inc.**  
**Well Development Field Record**

Job Name: Plant Branch Ash Ponds Job No. I054-115 Well ID PZ-711  
 Developed By: A. Schnittker Date of Installation: \_\_\_\_\_ Sheet 1 of 1  
 Started Dev. 5/8/2023 11:15 Completed Dev. 5/8/2023 16:50  
 \_\_\_\_\_ Date / Time \_\_\_\_\_ Date / Time  
 W.L. Before Dev. 34.58 5/8/2023 11:00 W.L. After Dev. 42.95 5/8/2023 17:05  
 \_\_\_\_\_ BTOC / Date / Time \_\_\_\_\_ BTOC / Date / Time  
 Well Depth Before Dev.: 43.92 BTOC Well Depth After Dev.: 43.94 BTOC  
 Water Column (H): 9.3 Ft. Well Dia.: 2 In. Well Volume: 1.49 Gal. Screen Length: 10 Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters						Remarks
		pH (S.U.)	Specific Cond. (umhos/cm)	DO mg/L	Turbidity (NTU)	Temperature (°C)	ORP	
5/8/23 11:30	0.00	--	--	--	--	--	--	Surged with surge block and rigid tubing for 25 minutes.
5/8/23 11:55	1.50	6.79	330	7.3	>1000	22.6	137	Surged and bailed.
5/8/23 12:05	3.00	6.62	534	7.9	>1000	24.2	201	Surged and bailed.
5/8/23 12:15	4.00	6.74	518	7.1	>1000	23.4	165	Well purged dry. WL @ 42.81
5/8/23 13:30	4.00	--	--	--	--	--	--	Allowed to recharge. WL @ 40.68.
5/8/23 14:00	5.00	6.78	335	7.4	54.7	22.3	136	Well purged dry. WL: 41.9 @ 14:20
5/8/23 14:50	5.00	--	--	--	--	--	--	Begin pumping with Monsoon.
5/8/23 15:20	5.75	7.02	346	6.7	96.4	29.0	96	Well purged dry. WL BTOP. Pump top @ 42'.
5/8/23 15:45	6.50	7.00	349	6.9	72.4	29.7	104	Well purged dry. WL BTOP. Pump top @ 42'.
5/8/23 16:50	7.25	7.04	397	7.2	11.2	25.5	101	Well purged dry. WL BTOP. Pump top @ 42'.
Total Volume Removed:	7.25 Gal							

Development Method: Well was developed by using rigid tubing and a surge block to surge the full length of the screen for approximately 25 minutes. 2.5 well volumes were removed with a bailer. Well was resurged between bailed well volumes. A monsoon pump was used to continually pump the well dry. Well was purged dry 5 times and 4.5 well volumes were removed. Development was completed to the best achievable turbidity with the water available.

Notes: H = well depth (BTOC) - W.L. (BTOC)  
 2" diameter well: 0.16 X H = volume in gallons  
 4" diameter well: 0.66 X H = volume in gallons

## Atlantic Coast Consulting, Inc. Well Development Field Record

Job Name: <u>Plant Branch Ash Ponds</u>	Job No. <u>I054-115</u> Well ID <u>PZ-721</u>
Developed By: <u>T. Goble</u>	Date of Installation: _____ Sheet <u>1</u> of <u>1</u>
Started Dev. <u>5/18/2023 12:15</u>	Completed Dev. <u>5/18/2023 15:15</u>
Date / Time	Date / Time
W.L. Before Dev. <u>25.39 5/18/2023 12:10</u>	W.L. After Dev. <u>26.33 5/18/2023 15:20</u>
BTOC / Date / Time	BTOC / Date / Time
Well Depth Before Dev.: <u>36.85</u> BTOC	Well Depth After Dev.: <u>36.85</u> BTOC
Water Column (H): <u>11.5</u> Ft. Well Dia.: <u>2</u> In.	Well Volume: <u>1.83</u> Gal. Screen Length: <u>10</u> Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters						Remarks
		pH (S.U.)	Specific Cond. (umhos/cm)	DO mg/L	Turbidity (NTU)	Temperature (°C)	ORP	
5-18-23/1215	0	Surged well with rigid tubing and surge block						
1225	2	6.83	513	5.5	212	20.71	131	Bailer used
1235	4	6.80	547	5.4	131	20.23	129	Bailer used
1245	6	6.77	560	5.1	82	20.20	129	Bailer used
1310	7	6.60	571	5.0	27	19.77	130	Monsoon pump used
1320	10	6.13	576	5.0	9.09	18.93	132	
1330	13	5.90	575	4.7	5.48	19.0	135	
1340	16	5.81	574	4.6	4.12	18.97	135	
1350	19	5.79	575	4.5	3.99	19.02	136	
1400	22	5.79	574	4.3	15.5	19.00	138	Surged well again
1410	25	5.78	572	4.1	3.82	18.85	138	
1420	28	5.78	572	4.0	3.35	19.52	138	
1430	31	5.78	573	4.0	1.60	19.62	138	
1440	34	5.79	573	4.0	1.26	19.60	139	
1450	37	5.79	573	4.0	1.11	19.65	139	
Total Volume Removed:	44 Gal.							

Development Method: Well was developed by using rigid tubing and a surge block to surge the full length of the screen for approximately 20 minutes. 3 well volumes were then removed with a bailer. A monsoon pump was then used to continually pump the well at a rate of approximately 0.33 gallons per minute for 125 minutes.

Notes: H = well depth (BTOC) - W.L. (BTOC)  
 2" diameter well: 0.16 X H = volume in gallons  
 4" diameter well: 0.66 X H = volume in gallons

## Atlantic Coast Consulting, Inc. Well Development Field Record

Job Name: <u>Plant Branch Ash Ponds</u>	Job No. <u>I054-115</u> Well ID <u>PZ-73I</u>
Developed By: <u>T. Goble</u>	Date of Installation: _____ Sheet <u>1</u> of <u>1</u>
Started Dev. <u>5/19/2023 8:45</u>	Completed Dev. <u>5/19/2023 12:00</u>
Date / Time	Date / Time
W.L. Before Dev. <u>7.41 5/19/2023 08:40</u>	W.L. After Dev. <u>11.15 5/19/2023 12:05</u>
BTOC / Date / Time	BTOC / Date / Time
Well Depth Before Dev.: <u>28.68</u> BTOC	Well Depth After Dev.: <u>28.69</u> BTOC
Water Column (H): <u>21.3</u> Ft. Well Dia.: <u>2</u> In.	Well Volume: <u>3.40</u> Gal. Screen Length: <u>10</u> Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters						Remarks
		pH (S.U.)	Specific Cond. (umhos/cm)	DO mg/L	Turbidity (NTU)	Temperature (°C)	ORP	
5-19-23/0845	0	Surged well with rigid tubing and surge block						
0910	4	6.97	551	0.66	556	18.03	135	Bailer used
0925	8	6.92	560	0.57	412	17.77	130	Bailer used
0940	9	6.87	562	0.52	280	17.51	127	Monsoon pump used
0955	13	5.89	567	0.15	34.7	17.26	126	
1010	17	5.63	658	0.08	14.3	17.29	128	
1025	21	5.61	661	0.08	12.2	17.33	130	Surged well again
1040	24	5.61	663	0.06	8.72	17.32	133	
1055	28	5.61	663	0.10	3.80	17.51	135	
1110	32	5.61	664	0.05	2.24	17.23	140	
1125	36	5.61	663	0.05	2.21	17.24	143	
1140	40	5.61	661	0.04	2.09	17.28	147	
1200	46	5.61	661	0.04	2.15	17.33	149	
Total Volume Removed:	46 Gal.							

Development Method: Well was developed by using rigid tubing and a surge block to surge the full length of the screen for approximately 25 minutes. 2 well volumes were then removed with a bailer. A monsoon pump was then used to continually pump the well at a rate of approximately 0.33 gallons per minute for 150 minutes.

Notes: H = well depth (BTOC) - W.L. (BTOC)  
 2" diameter well: 0.16 X H = volume in gallons  
 4" diameter well: 0.66 X H = volume in gallons

## Atlantic Coast Consulting, Inc. Well Development Field Record

Job Name: Plant Branch Ash Ponds Job No. I054-115 Well ID PZ-74I  
 Developed By: J. Berisford Date of Installation: \_\_\_\_\_ Sheet 1 of 1  
 Started Dev. 5/31/2023 14:15 Completed Dev. 6/1/2023 11:00  
 \_\_\_\_\_ Date / Time \_\_\_\_\_ Date / Time  
 W.L. Before Dev. 27.96 5/31/2023 14:07 W.L. After Dev. 29.42 6/1/2023 11:13  
 \_\_\_\_\_ BTOC / Date / Time \_\_\_\_\_ BTOC / Date / Time  
 Well Depth Before Dev.: 50.95 BTOC Well Depth After Dev.: 50.95 BTOC  
 Water Column (H): 23.0 Ft. Well Dia.: 2 In. Well Volume: 3.68 Gal. Screen Length: 10 Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters						Remarks
		pH (S.U.)	Specific Cond. (umhos/cm)	DO mg/L	Turbidity (NTU)	Temperature (°C)	ORP	
5/31/23 15:30	56.0	6.31	511	6.12	474	21.7	72	Surged with surge block
5/31/23 16:00	78.5	6.01	521	2.59	41	19.9	55	
5/31/23 16:10	86.0	6.00	521	2.54	23	19.8	58	Switch to Monsoon pump
5/31/23 16:20	93.5	5.98	527	2.54	475	19.9	53	Surged well
5/31/23 16:30	101	5.96	527	2.62	56	19.7	53	
5/31/23 16:45	112	5.95	526	2.62	27	19.5	55	
6/1/23 10:25	222	5.81	520	1.96	2.92	19.6	105	
6/1/23 10:30	227	5.81	517	2.04	3.75	19.6	101	
6/1/23 10:35	232	5.81	516	2.06	2.98	19.7	99	
6/1/23 10:40	237	5.81	514	2.07	2.53	19.7	98	
6/1/23 10:45	242	5.81	514	2.08	2.77	19.7	97	
6/1/23 10:50	247	5.81	513	2.07	2.53	19.7	97	
6/1/23 10:55	252	5.81	513	2.08	2.82	19.6	96	
Total Volume Removed:	252 Gal							

Development Method: Well was developed by using rigid tubing and a surge block to surge the full length of the screen. A reclaimer pump was to continually pump the well. Switched to a Monsoon pump.  
 5/31/23 - purge time 1415 to 1645. 6/1/23 - purge time 0835 to 1055.

Notes: H = well depth (BTOC) - W.L. (BTOC)  
 2" diameter well: 0.16 X H = volume in gallons  
 4" diameter well: 0.66 X H = volume in gallons



## Atlantic Coast Consulting, Inc. Well Development Field Record

Job Name: <u>Plant Branch Ash Ponds</u>	Job No. <u>I054-115</u> Well ID <u>PZ-75I</u>
Developed By: <u>D. Johnson</u>	Date of Installation: _____ Sheet <u>1</u> of <u>1</u>
Started Dev. <u>6/30/2023 10:10</u>	Completed Dev. <u>6/30/2023 13:31</u>
Date / Time	Date / Time
W.L. Before Dev. <u>17.65 6/30/2023 09:55</u>	W.L. After Dev. <u>17.94 6/30/2023 13:31</u>
BTOC / Date / Time	BTOC / Date / Time
Well Depth Before Dev.: <u>30.48</u> BTOC	Well Depth After Dev.: <u>30.49</u> BTOC
Water Column (H): <u>12.83</u> Ft. Well Dia.: <u>2</u> In.	Well Volume: <u>2.05</u> Gal. Screen Length: <u>10</u> Ft.

Date / Time	Volume Removed (Gal.)	Field Parameters						Remarks
		pH (S.U.)	Specific Cond. (umhos/cm)	DO mg/L	Turbidity (NTU)	Temperature (°C)	ORP	
6/30/23 10:55	7	6.49	796	8.02	<1000	28.25	157	Surged well
6/30/23 11:10	9	6.49	822	7.61	<1000	30.08	165	
6/30/23 11:20	11	6.21	665	3.62	<1000	24.87	140	Surged well
6/30/23 11:30	15	6.5	630	9.17	<1000	23.42	131	Surged well
6/30/23 11:41	18	5.92	628	4.7	<1000	20.84	126	
6/30/23 11:51	21	6.08	630	7.4	894	21.19	124	
6/30/23 12:11	25	6.26	633	8.0	218	21.55	122	Surged well
6/30/23 12:21	29	6.05	637	8.6	383	20.92	123	
6/30/23 12:31	34	6.15	637	8.5	121	20.91	122	
6/30/23 12:41	38	5.79	637	4.7	36	20.57	122	
6/30/23 12:51	46	5.79	634	9.2	23	21.64	120	
6/30/23 13:01	50	5.94	641	7.1	13.2	21.57	121	
6/30/23 13:11	54	5.95	643	7.2	8.27	23.80	119	
6/30/23 13:21	58	5.95	644	7.3	5.24	25.62	118	
6/30/23 13:31	62	5.94	645	7.3	4.91	26.96	118	
Total Volume Removed:	62 Gal							

Development Method: Well was developed by using rigid tubing and a surge block to surge the full length of the screen. A reclaimer pump was then used to continually pump the well.

Notes: H = well depth (BTOC) - W.L. (BTOC)  
 2" diameter well: 0.16 X H = volume in gallons  
 4" diameter well: 0.66 X H = volume in gallons

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 5/8/2023

Sensor **RDO**

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Serial Number 964485  
Last Calibrated 5/8/2023

Calibration Details

Slope 1.039703  
Offset 0.00 mg/L

Calibration point 100%

Concentration 6.53 mg/L  
Temperature 35.43 °C  
Barometric Pressure 1,003.5 mbar

Sensor **Conductivity**

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Serial Number 965678  
Last Calibrated 5/8/2023

Calibration Details

Cell Constant 0.87  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

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Serial Number 965199  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
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Serial Number	21997
Last Calibrated	5/8/2023

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*Calibration Details*

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Total Calibration Points	3
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*Calibration Point 1*

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pH of Buffer	4.02 pH
pH mV	122.7 mV
Temperature	32.79 °C

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*Calibration Point 2*

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pH of Buffer	6.99 pH
pH mV	-44.5 mV
Temperature	30.64 °C

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*Calibration Point 3*

---

pH of Buffer	9.95 pH
pH mV	-222.6 mV
Temperature	31.00 °C

---

*Slope and Offset 1*

---

Slope	-56.3 mV/pH
Offset	-45.1 mV

---

*Slope and Offset 2*

---

Slope	-60.15 mV/pH
Offset	-45.1 mV

---

*ORP*

---

ORP Solution	Zobell's
Offset	54.6 mV
Temperature	28.78 °C



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: \_\_\_\_\_ T. Gobbie \_\_\_\_\_  
 WATER LEVEL: \_\_\_\_\_ 501Mst \_\_\_\_\_  
 WATER LEVEL S/N: \_\_\_\_\_ 236956 \_\_\_\_\_

INSTRUMENT S/N: \_\_\_\_\_ 714293 \_\_\_\_\_  
 INSTRUMENT TYPE: AquaTroll \_\_\_\_\_  
 CAL. SOLUTIONS:  
 ID: ORP LOT #: 36D400 EXP. DATE: Jan/24  
 ID: pH 7 LOT #: 2GT3041 EXP. DATE: Sep/24  
 ID: Cond LOT #: 2GF806 EXP. DATE: Jun/23  
 ID: pH 10 LOT #: 2GG018 EXP. DATE: Jul/24  
 ID: pH 11 LOT #: 2GH670 EXP. DATE: Aug/24

*Midday pH check*  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 5-18-23

RDO: 100% sat. = 94.57 *Midday pH check*  
 PH: 4.00 = 4.76 7.00 = 6.92 10.00 = 9.09 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1516  
 ORP (mV) 240 = 163.9

Calibration Date: 5-19-23

RDO: 100% sat. = 102.04 *Midday pH check*  
 PH: 4.00 = 4.12 7.00 = 7.26 10.00 = 10.31 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1334  
 ORP (mV) 240 = 239.3

Calibration Date:

RDO: 100% sat. = *Midday pH check*  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = *Midday pH check*  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = *Midday pH check*  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: T. Gable

INSTRUMENT S/N: 16040C049767  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DT  
10 NTU - LOT # A2122 EXP. DATE: 8/23  
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 5-18-23

Calibration Solution	Instrument Reading	
0.0	<u>0.66</u>	NTU
10.0	<u>10.5</u>	NTU
20.0	<u>22.2</u>	NTU

100 = 106  
800 = 862

Calibration Date: 5-19-23

Calibration Solution	Instrument Reading	
0.0	<u>0.52</u>	NTU
10.0	<u>10.7</u>	NTU
20.0	<u>21.5</u>	NTU

100 = 106  
800 = 803

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: Plant Branch  
 TECHNICIAN: A Schnittker  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377660

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/:

ID: <u>pH 4</u>	LOT #: <u>262541</u>	EXP. DATE: <u>11/24</u>
ID: <u>pH 7</u>	LOT #: <u>261304</u>	EXP. DATE: <u>09/24</u>
ID: <u>pH 10</u>	LOT #: <u>268707</u>	EXP. DATE: <u>02/24</u>
ID: <u>Cond</u>	LOT #: <u>26E994</u>	EXP. DATE: <u>05/23</u>
ID: <u>ORP</u>	LOT #: <u>26L022</u>	EXP. DATE: <u>09/23</u>
ID:	LOT #:	EXP. DATE:
ID:	LOT #:	EXP. DATE:

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 5/30/23

RDO: 100% sat. = 105.27 Midday pH check  
 PH: 4.00 = 4.12 7.00 = 7.05 10.00 = 10.11 7.0 = 6.99  
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check  
 CONDUCTIVITY: 1413 = 1312  
 ORP (mV) 240 = 229.3

Calibration Date: 5/31

RDO: 100% sat. = 101.26 Midday pH check  
 PH: 4.00 = 4.03 7.00 = 7.06 10.00 = 10.06 7.0 = 7.01  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1444.4  
 ORP (mV) 240 = 226.5

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =





### Daily Instrument Calibration Log

SITE: Plant Branch  
TECHNICIAN: A Schmittker

INSTRUMENT S/N: 22080D001127  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI Water  
10 NTU - LOT # A2085 EXP. DATE: 07/23  
20 NTU - LOT # A2200 EXP. DATE: 11/23

Calibration Date: 5/30/23

Calibration Solution	Instrument Reading	
0.0	<u>0.40</u>	NTU
10.0	<u>9.23</u>	NTU
20.0	<u>20.2</u>	NTU

Calibration Date: 5/31/23

Calibration Solution	Instrument Reading	
0.0	<u>0.44</u>	NTU
10.0	<u>9.51</u>	NTU
20.0	<u>20.8</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: J. Borsari  
 WATER LEVEL: \_\_\_\_\_  
 WATER LEVEL S/N: 267201

INSTRUMENT S/N: 965678  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/ID: pH 4 LOT #: 261670 EXP. DATE: 8/24  
pH 7 LOT #: 261304 EXP. DATE: 9/24  
pH 10 LOT #: 266078 EXP. DATE: 7/24  
CO2 LOT #: 261686 EXP. DATE: 11/23  
022 LOT #: 368186 EXP. DATE: 11/23

**Midday pH check**  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

**Calibration Date:** 5/30/23

RDO: 100% sat. = 94.5 **Midday pH check**  
 PH: 4.00 = 4.04 7.00 = 7.13 10.00 = 10.02 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = # 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1376  
 ORP (mV) 240 = 216.4

**Calibration Date:** 5/31/23

RDO: 100% sat. = 95.2 **Midday pH check**  
 PH: 4.00 = 4.21 7.00 = 7.10 10.00 = 10.15 7.0 = 7.03  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1346  
 ORP (mV) 240 = 228.1

**Calibration Date:** 6/1/23

RDO: 100% sat. = 92.5 **Midday pH check**  
 PH: 4.00 = 3.95 7.00 = 7.05 10.00 = 9.48 7.0 = 7.07  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1628  
 ORP (mV) 240 = 247.7

**Calibration Date:**

RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

**Calibration Date:**

RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_





## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: \_\_\_\_\_ J. B. [Signature]

INSTRUMENT S/N: \_\_\_\_\_ 22070D000803 \_\_\_\_\_  
INSTRUMENT TYPE: Hach 2100Q \_\_\_\_\_  
CAL. SOLUTION: 0 NTU - LOT # N/A EXP. DATE: DI H<sub>2</sub>O \_\_\_\_\_  
10 NTU - LOT # A2085 EXP. DATE: 7/23 \_\_\_\_\_  
20 NTU - LOT # A2200 EXP. DATE: 11/23 \_\_\_\_\_

Calibration Date: 5/30/23

Calibration Solution	Instrument Reading	
0.0	0.37	NTU
10.0	9.74	NTU
20.0	20.2	NTU

Calibration Date: 5/31/23

Calibration Solution	Instrument Reading	
0.0	0.30	NTU
10.0	9.88	NTU
20.0	19.7	NTU

Calibration Date: 6/1/23

Calibration Solution	Instrument Reading	
0.0	0.42	NTU
10.0	9.91	NTU
20.0	20.1	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





### Daily Instrument Calibration Log

SITE: Plant Branch Ash Ponds  
TECHNICIAN: D. JOHNSON

INSTRUMENT S/N: 220800000803  
INSTRUMENT TYPE: HACH  
CAL. SOLUTION: 0 NTU - LOT # N/A EXP. DATE: ~~10-23~~ (53) NOV 23  
10 NTU - LOT # A2085 EXP. DATE: JUN-23  
20 NTU - LOT # A2200 EXP. DATE: NOV-23

Calibration Date: 6/30/2023

Calibration Solution	Instrument Reading	
0.0	0.26	NTU
10.0	9.58	NTU
20.0	20.3	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# APPENDIX D

## Certified Well Survey Data

**GEL ENGINEERING OF NC INC**

**Plant Branch Monitoring Wells**

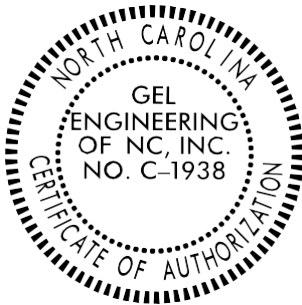
Field Surveys: 5/30/2023-05/31/2023

Well ID	Casing Northing	Casing Easting	Top of Casing Elevation	Nail or Pad Northing	Nail or Pad Easting	Nail or Pad Elevation	Description
PZ-71I	1160295.351	2558230.829	385.34	1160297.021	2558231.341	382.57	NAIL
PZ-72I	1160133.293	2558394.65	368.57	1160134.778	2558394.3	365.91	NAIL
PZ-73I	1160226.373	2558559.304	352.63	1160227.021	2558558.104	349.87	NAIL
PZ-74I	1160189.297	2557970.942	371.13	1160189.867	2557971.812	368.25	NAIL
IW-B-03	1161612.236	2561277.94	377.72				
IW-B-04	1161586.672	2561485.095	379.34				
IW-B-05	1161559.748	2561669.228	382.33				
<b>Benchmark</b>	<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>				
GEL1	1162581.977	2556743.623	391.46				
GEL2	1161860.379	2562295.003	380.25				

SURVEY DATA CERTIFICATION FOR SOUTHERN COMPANY TO DETERMINE NORTHING, EASTING, AND VERTICAL ELEVATION OF THE NAIL IN THE CONCRETE PAD & THE PVC WELL CASING. DATE OF FIELD SURVEY & INSPECTION: 05/30/2023-05/31/2023. FIELD SURVEY POSITIONAL TOLERANCE=0.5 FEET HORIZONTAL- NAD'83, 0.01 VERTICAL-NAVD '88. EQUIPMENT USED FOR HORIZONTAL LOCATION: TRIMBLE R12 RTK GPS & TRIMBLE S5 ROBOTIC TOTAL STATION. THE VERTICAL LOCATION OF EACH SURVEYED POINT WAS ESTABLISHED BASED UPON LEVEL RUNS WITH A DIGITAL LEVEL LOOP FROM VERTICAL CONTROL ESTABLISHED BY ON-SITE BENCHMARKS GEL1 & GEL2 SET BY GEL SOLUTIONS USING A TRIMBLE DINI LEVEL



6/1/2023



COA - LS003119  
Exp. 12/31/2023

**GEL ENGINEERING OF NC INC**

**Plant Branch Monitoring Wells**

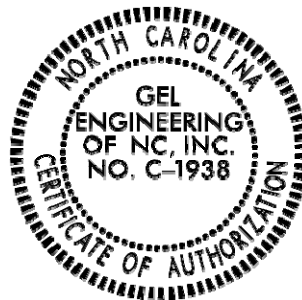
Field Surveys: 7/10/2023

Well ID	Casing Northing	Casing Easting	Top of Casing Elevation	Nail or Pad Northing	Nail or Pad Easting	Nail or Pad Elevation	Description
PZ-75I	1160009.370	2558343.030	357.86	1160010.620	2558342.840	354.88	NAIL
Benchmark	Northing	Easting	Elevation				
GEL1	1162581.977	2556743.623	391.46				
GEL2	1161860.379	2562295.003	380.25				

SURVEY DATA CERTIFICATION FOR SOUTHERN COMPANY TO DETERMINE NORTHING, EASTING, AND VERTICAL ELEVATION OF THE NAIL IN THE CONCRETE PAD & THE PVC WELL CASING. DATE OF FIELD SURVEY & INSPECTION: 07/10/2023. FIELD SURVEY POSITIONAL TOLERANCE=0.5 FEET HORIZONTAL-NAD'83, 0.01 VERTICAL-NAVD '88. EQUIPMENT USED FOR HORIZONTAL LOCATION: TRIMBLE R10 & R12 RTK GPS & TRIMBLE S5 ROBOTIC TOTAL STATION. THE VERTICAL LOCATION OF EACH SURVEYED POINT WAS ESTABLISHED BASED UPON LEVEL RUNS WITH A DIGITAL LEVEL LOOP FROM VERTICAL CONTROL ESTABLISHED BY ON-SITE BENCHMARKS GEL1 & GEL2 SET BY GEL SOLUTIONS USING A TRIMBLE DINI LEVEL



**7/10/2023**



COA - LS003119  
Exp. 12/31/2023



**DATE:** July 31, 2023

**TO:** Joju Abraham, P.G., Southern Company Services  
Ben Hodges, P.G., Georgia Power Company

**FROM:** Joe Ivanowski, P.G., Geosyntec Consultants  
Lauren Fitzgerald, P.E., Geosyntec Consultants

**SUBJECT: Well and Piezometer Abandonment Summary Memorandum  
Plant Branch CCR Landfill  
Georgia Power Company**

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## INTRODUCTION

On behalf Georgia Power Company (Georgia Power), Geosyntec Consultants (Geosyntec) has prepared this *Well and Piezometer Abandonment Summary Memorandum* for the Georgia Environmental Protection Division (GA EPD) to summarize well abandonment activities at the future Plant Branch CCR Landfill conducted between May 03 and June 28, 2023. The wells and piezometers were abandoned in support of landfill construction activities initiated in 2023 and were completed in general accordance with the *Georgia Water Well Standards Act* (OCGA § 12-5-120 through 138), U.S. Environmental Protection Agency (USEPA) Science and Ecosystem Support Division guidance document *Design and Installation of Monitoring Wells* (SESDGUID-101-R2), and the site limitations issued by GA EPD as part of the permit issued for the CCR Landfill.

Abandonment activities were performed by Cascade Drilling, Inc. (Cascade) of Aiken, South Carolina. In accordance with the *Georgia Water Well Standards Act*, Cascade has a bond on file with the State of Georgia. A copy of the bond, which was valid at the time of drilling, is included in **Attachment A**.

## WELL ABANDONMENT

A total of two (2) detection monitoring wells (BRGWA-12S and BRGWA-12I) and fifteen (15) piezometers (PB-1S, PB-2D, PB-4S, PB-4D, PB-7S, PB-8S, PB-8D, PB-10S, PB-10D, PB-13S, PB-16, PB-18, PZ-11S, PZ-12D, and PZ-39) were abandoned within or near the footprint of the future Plant Branch CCR Landfill by Cascade during the reporting period. The work was

completed under the direction and supervision of Southern Company Services (SCS) Civil Field Services (CFS) personnel and a professional Geosyntec geologist licensed in the State of Georgia.

The locations of the abandoned wells and piezometers are presented on **Figure 1**. Well construction and abandonment details are presented in **Table 1**. All wells and piezometers were constructed of 2-inch diameter polyvinyl chloride (PVC) well screen and riser installed in a 6-inch diameter borehole. BRGWA-12S, PB-1S, PB-4S, PB-7S, PB-8S, PB-13S, PB-16, PB-18, PZ-11S, and PZ-39 were screened in saprolite/partially weathered rock (PWR). BRGWA-12I, PB-2D, PB-4D, PB-8D, and PZ-12D were screened in biotite gneiss bedrock. The water level and total well depth were measured and recorded to calculate the estimated volumes of grout needed before initiating abandonment procedures for a given well. The abandonment of BRGWA-12S, BRGWA-12I, PZ-11S, PZ-12D, and PZ-39 included the removal of the protective bollards, cement apron, and protective well cover. All other locations (PB-series) were temporary piezometers that were installed for water level measurements and consisted of only the PVC riser pipe without protective bollards, cement apron, and protective well cover.

The wells and piezometers were abandoned by differing procedures depending on their location, as noted in **Table 1**. The wells and piezometers located within areas of the future landfill in which waste is planned for placement (BRGWA-12S, BRGWA-12I, PB-1S, PB-4S, PB-4D, PB-7S, PB-8S, PB-8D, PZ-12D, and PZ-39) were abandoned by tremie grouting the PVC riser pipe in place, over drilling the entire depth of the original borehole, tremie grouting to a target elevation determined by the anticipated grading of the landfill base, and placing bentonite chips to ground surface. During the over drilling, the grouted PVC casing was extracted as part of the sonic drill cuttings. Over drilling was performed with a TSI-150 track-mounted rig, using sonic drilling techniques.

The abandonment of piezometers located outside the footprint of the future landfill (PB-2D, PB-13S, PB-16, PB-18, and PZ-11S) was conducted by tremie grouting the PVC riser pipe in place, over drilling either 10 or 15 feet below ground surface (ft bgs), and tremie grouting to ground surface. Temporary piezometers PB-10S and PB-10D are located within the boundary of the future landfill, but in a current borrow pit and an area unlikely to receive waste, therefore they were abandoned using the methods similar to those located outside of the waste footprint. Six piezometers (PB-10S, PB-10D, PB-13S, PB-16, PB-18, and PZ-11S) were over drilled to 10 ft bgs. One piezometer (PB-2D) was over drilled to 15 ft bgs in order to provide additional clearance for the anticipated landfill grading. During the over drilling, the grouted PVC casing was extracted as part of the sonic drill cuttings. Over drilling was performed with a TSI-150 track-mounted rig, using sonic drilling techniques.

Tremie grouting was conducted by pumping a non-shrinking cement/bentonite grout slurry through the end of a PVC tremie pipe placed at the bottom of the well/borehole, which was raised as the grout slurry level rose to the ground surface/target elevation. The volume of grout material



used as well as the anticipated (calculated) volume is shown in **Table 1**. If grout loss occurred, locations were topped off or brought back to the correct target elevation. Once the cement/bentonite grout had cured, Hole Plug bentonite chips were placed in the borehole by gravity-pouring to ground surface. A tremie pipe was used to probe the borehole to ensure that no bridging occurred.

Well abandonment forms for each well and piezometer are provided in **Attachment B**.

Sincerely,



Joe Ivanowski, P.G.  
Senior Geologist



Lauren Fitzgerald, P.E.  
Senior Engineer

\*\*\*\*\*

**ENCLOSURES**

Table 1 – Summary Details of Abandoned Wells and Piezometers

Figure 1 – Well and Piezometer Abandonment Locations

Attachment A – Bond for Drillers

Attachment B – Well and Piezometer Abandonment Logs



## CERTIFICATION PAGE

I hereby certify that this *Well and Piezometer Abandonment Summary Memorandum – Plant Branch AP-BCD* has been prepared by, or under the direct supervision of, a Qualified Groundwater Scientist with Geosyntec Consultants and is in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10.

According to 391-3-4-.01, a Qualified Groundwater Scientist is “a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable individuals to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.”



---

Date: July 31, 2023  
Joseph Ivanowski, P.G.  
Georgia Professional Geologist No. 2140  
*Senior Geologist*  
*Geosyntec Consultants*

# TABLE

**Table 1**  
Summary Details of Abandoned Wells and Piezometers  
Plant Branch CCR Landfill, Putnam County, Georgia

Well ID	Installation Date	Northing <sup>(1)</sup>	Easting <sup>(1)</sup>	Ground Surface Elevation <sup>(2)</sup> (ft)	Top of Casing Elevation <sup>(2)</sup> (ft)	Screen Interval Length (ft)	Well Depth (ft BTOC) <sup>(3)</sup>	Depth to Water (ft BTOC) <sup>(3)</sup>	Abandonment Date <sup>(4)</sup>	Calculated PVC Grout Volume (gal)	Actual PVC Grout Volume (gal)	Calculated Open Hole Grout Volume (gal)	Actual Open Hole Grout Volume (gal)	Target Depth for Grout/Bentonite Interface (ft bgs)	Abandonment Method <sup>(6)</sup>
BRGWA-12S	3/4/2014	1164286.80	2557142.89	431.60	434.64	10	61.98	48.91	5/14/2023	10	20	32	100	39	A
BRGWA-12I	2/20/2014	1164301.32	2557138.79	431.50	434.39	10	81.27	48.61	5/13/2023	13	15	62	80	39	
PB-1S	1/22/2019	1164910.63	2556355.89	400.40	403.16	10	41.88	13.27	5/4/2023	6	15	40	90	11	B
PB-2D	12/4/2018	1164853.67	2556914.34	414.90	416.71	10	60.48	37.39	5/4/2023	9	15	22	40	--	
PB-4S	1/16/2019	1164335.20	2556069.32	409.30	411.15	10	50.32	21.07	5/5/2023	8	10	48	75	15	A
PB-4D	1/16/2019	1164339.50	2556060.72	409.00	412.12	10	120.29	21.89	5/9/2023	19	40	145	250	16	
PB-7S	1/14/2019	1163831.09	2556186.30	399.70	402.88	10	36.39	19.42	5/10/2023	5	10	21	40	19	
PB-8S	1/8/2018	1163018.39	2556792.21	398.60	401.82	10	39.65	17.02	5/26/2023	6	10	37	40	10	
PB-8D	1/8/2018	1163024.53	2556786.65	398.20	401.74	10	111.64	18.00	5/25/2023	17	25	141	200	10	
PB-10S	1/16/2019	1163589.10	2558551.25	397.60	400.91	10	34.79	26.25	6/28/2023	6	7	15	15	--	
PB-10D	1/16/2019	1163593.43	2558546.62	397.50	400.31	10	87.60	27.10	6/28/2023	14	15	15	30	--	C
PB-13S	12/10/2018	1162084.43	2556626.03	370.80	373.31	10	NA <sup>(5)</sup>	NA <sup>(5)</sup>	5/16/2023	8	20	15	15	--	
PB-16	9/10/2021	1165266.99	2556428.95	401.00	403.79	10	45.91	22.67	5/3/2023	7	10	15	20	--	
PB-18	9/10/2021	1164608.57	2555872.14	402.00	404.77	10	41.96	14.22	5/5/2023	7	15	15	20	--	
PZ-11S	2/20/2014	1162467.37	2557002.59	390.90	393.99	10	27.93	18.09	5/30/2023	5	5	15	70	--	A
PZ-12D	4/14/2014	1164311.85	2557136.26	431.40	434.09	60	146.54	65.03	5/11/2023	24	35	250	250	39	
PZ-39	7/30/2016	1163675.53	2557460.52	432.00	434.78	10	49.07	Dry	5/15/2023	9	20	32	60	32	

**Notes:**

ft = feet.  
ft BGS = feet below ground surface  
ft BTOC = feet below top of casing.  
gal = US liquid gallon.  
PVC = Polyvinyl chloride casing.

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

(3) Total well depth measured prior to well abandonment.

(4) Well abandonment date indicates date of grouting in place.

(5) Well damage prevented accurate total depth measurement or water level measurement.

Water level in paired well PB-13D prior to abandonment of PB-13S: 8.76 ft BTOC.

(6) Abandonment methods were as follows:

A = Tremie grouted PVC riser pipe in place, over drilled entire depth of original borehole, grouted to the target elevation, and placed bentonite

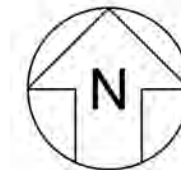
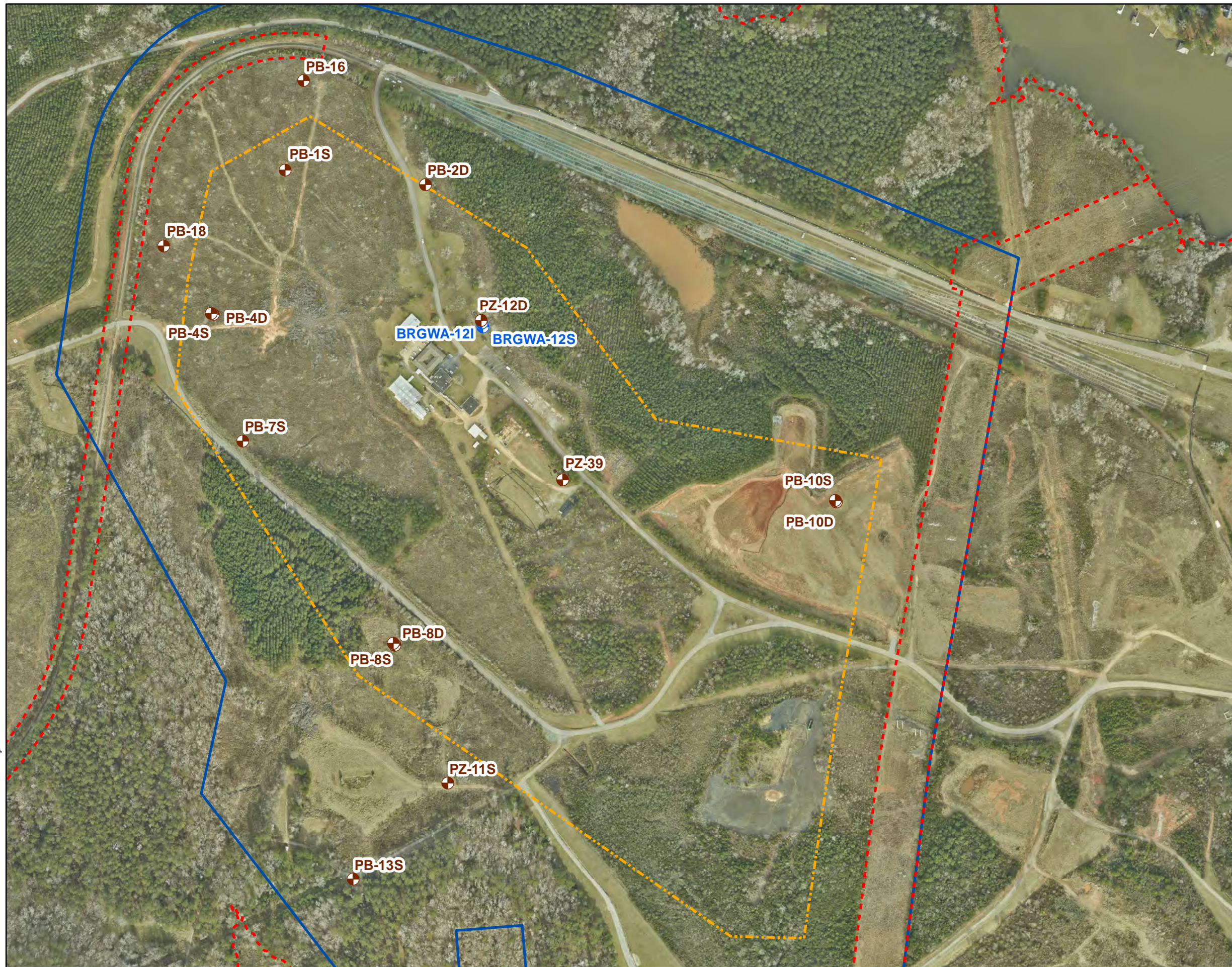
B = Tremie grouted PVC riser pipe, overdrilled to 15 ft below ground surface, and grouted to surface.

C = Tremie grouted PVC riser pipe, overdrilled to 10 ft below ground surface, and grouted to surface.



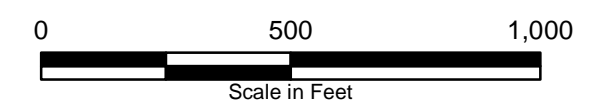
# FIGURE





- LEGEND**
- Detection Monitoring Well
  - Piezometer
  - Future Plant Branch CCR Landfill
  - CCR Permit Boundary
  - Property Boundary

Notes:  
 1. Coordinate System: NAD 1983 State Plane Georgia West\_FIPS (U.S. Feet).  
 2. Property Boundary Provided by Southern Company Services.  
 3. Aerial Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community 2019 and Georgia Power Company, February 2022.



**Well and Piezometer  
Abandonment Locations**  
 GEORGIA POWER COMPANY  
 PLANT BRANCH  
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power  
 Prepared By: Geosyntec  
 consultants

**FIGURE  
1**

KENNESAW, GA      JULY 2023



# ATTACHMENT A

## Bond for Drillers



# Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson, William M. Smith, Derek Sabo, Charla M. Boadle**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

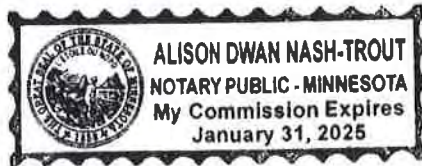
IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.



By *Paul J. Brehm*  
Paul J. Brehm, Senior Vice President

STATE OF MINNESOTA  
HENNEPIN COUNTY

On this twenty-seventh day of April, 2020, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.



*Alison Nash-Trout*  
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 12 day of April, 2021.

This Power of Attorney expires  
January 31, 2025



*Kara Barrow*  
Kara Barrow, Secretary

CONTINUATION  
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. 800033976

dated effective 09/27/2017  
(MONTH-DAY-YEAR)

on behalf of Ricky Davis / Cascade Drilling, L.P.  
(PRINCIPAL)

and in favor of Department of Natural Resources, State of Georgia  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on 06/30/2021  
(MONTH-DAY-YEAR)

and ending on 06/30/2023  
(MONTH-DAY-YEAR)

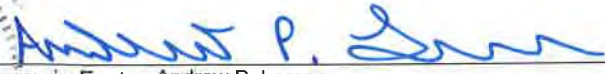
Amount of bond Thirty Thousand and 00/100 Dollars (\$30,000.00)

Description of bond Performance Bond for Water Well Contractors

**PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.**

Signed and dated on April 12th, 2021  
(MONTH-DAY-YEAR)

Atlantic Specialty Insurance Company

By   
Attorney-in-Fact Andrew P. Larsen

Parker, Smith & Feek, Inc.

Agent  
2233 112th Ave NE Bellevue, WA 98004

Address of Agent

425-709-3600

Telephone Number of Agent



# ATTACHMENT B

## Well and Piezometer Abandonment Logs

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: BRGWA-12S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/14/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 39 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 61.98 ft from Top of Casing      Total Depth of Overdrill: 61 ft below ground surface

Length of Well Casing and Screen Removed: 61 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 20 gallons

Final Grouting of Overdrilled Hole: 100 gallons

Grout Mixture:

4      Bags of Cement Used ( 47 lbs. each)

¼      Bags of Bentonite Used ( 50 lbs. each)

40      Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 8 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 48.91 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 50 Gallons

Volume of grout used to top off overdrilled hole: 50 Gallons

25 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment Well ID: BRGWA-12I

Project No.: GW8862 Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley Driller: Chris Tindel

Date of Abandonment: 5/13/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 39 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 81.27 ft from Top of Casing Total Depth of Overdrill: 81 ft below ground surface

Length of Well Casing and Screen Removed: 81 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 15 gallons

Final Grouting of Overdrilled Hole: 80 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

¼ Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 6 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 48.61 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 80 Gallons

Volume of grout used to top off overdrilled hole: 0 Gallons

25 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-1S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/4/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 11 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 41.88 ft from Top of Casing      Total Depth of Overdrill: 39 ft below ground surface

Length of Well Casing and Screen Removed: 39 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 15 gallons

Final Grouting of Overdrilled Hole: 90 gallons

Grout Mixture:

4    Bags of Cement Used ( 47 lbs. each)

½    Bags of Bentonite Used ( 50 lbs. each)

40    Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 3 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 feet

Notes:

Water Level prior to abandonment: 13.27 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 65 Gallons

Volume of grout used to top off overdrilled hole: 25 Gallons

25 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-2D

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/4/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 15 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 60.48 ft from Top of Casing

Total Depth of Overdrill: 15 ft below ground surface

Length of Well Casing and Screen Removed: 15 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 15 gallons

Final Grouting of Overdrilled Hole: 40 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

¼ Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 5 Feet

Notes:

Water Level prior to abandonment: 37.39 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 35 Gallons

Volume of grout used to top off overdrilled hole: 5 Gallons



## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-4S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/5/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 15 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 50.32 ft from Top of Casing      Total Depth of Overdrill: 48 ft below ground surface

Length of Well Casing and Screen Removed: 48 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 10 gallons

Final Grouting of Overdrilled Hole: 75 gallons

Grout Mixture:

4      Bags of Cement Used ( 47 lbs. each)

½      Bags of Bentonite Used ( 50 lbs. each)

40      Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 3.5 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 4 Feet

Notes:

Water Level prior to abandonment: 21.07 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 65 Gallons

Volume of grout used to top off overdrilled hole: 20 Gallons

20 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-4D

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/9/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 16 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 120.29 ft from Top of Casing      Total Depth of Overdrill: 115 ft below ground surface

Length of Well Casing and Screen Removed: 115 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 40 gallons

Final Grouting of Overdrilled Hole: 250 gallons

Grout Mixture:

4    Bags of Cement Used ( 47 lbs. each)

¼    Bags of Bentonite Used ( 50 lbs. each)

40    Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 6 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 21. 89 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 200 Gallons

Volume of grout used to top off overdrilled hole: 50 Gallons

25 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-7S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/10/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 19 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 36.39 ft from Top of Casing      Total Depth of Overdrill: 33 ft below ground surface

Length of Well Casing and Screen Removed: 33 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 10 gallons

Final Grouting of Overdrilled Hole: 40 gallons

Grout Mixture:

4      Bags of Cement Used ( 47 lbs. each)

¼      Bags of Bentonite Used ( 50 lbs. each)

40      Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 5 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 19.42 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 40 Gallons

Volume of grout used to top off overdrilled hole: 0 Gallons

10 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-8S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Brandon Griffis

Date of Abandonment: 5/26/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 10 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 39.65 ft from Top of Casing      Total Depth of Overdrill: 36 ft below ground surface

Length of Well Casing and Screen Removed: 36 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 10 gallons

Final Grouting of Overdrilled Hole: 40 gallons

Grout Mixture:

4    Bags of Cement Used ( 47 lbs. each)

¼    Bags of Bentonite Used ( 50 lbs. each)

40    Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 3.5 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 9.6 Feet

Notes:

Water Level prior to abandonment: 17.02 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 30 Gallons

Volume of grout used to top off overdrilled hole: 10 Gallons

16 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-8D

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Brandon Griffis

Date of Abandonment: 5/25/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 10 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 111.64 ft from Top of Casing      Total Depth of Overdrill: 108 ft below ground surface

Length of Well Casing and Screen Removed: 108 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 25 gallons

Final Grouting of Overdrilled Hole: 200 gallons

Grout Mixture:

4      Bags of Cement Used ( 47 lbs. each)

¼      Bags of Bentonite Used ( 50 lbs. each)

40      Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 8 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 18 ft below Top of Casing  
Initial volume of grout used in overdrilled hole: 180 Gallons  
Volume of grout used to top off overdrilled hole: 20 Gallons  
20 ft of intact PVC riser removed



## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-10S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Taylor Payne

Driller: Brandon Griffis

Date of Abandonment: 6/28/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 10 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 34.79 ft from Top of Casing

Total Depth of Overdrill: 10 ft below ground surface

Length of Well Casing and Screen Removed: 10 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 7 gallons

Final Grouting of Overdrilled Hole: 15 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

¼ Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 0 feet

Notes:

Water Level prior to abandonment: 26.25 ft below Top of Casing

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-10D

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Taylor Payne

Driller: Brandon Griffis

Date of Abandonment: 6/28/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 10 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 87.60 ft from Top of Casing

Total Depth of Overdrill: 10 ft below ground surface

Length of Well Casing and Screen Removed: 10 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 15 gallons

Final Grouting of Overdrilled Hole: 30 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

¼ Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 0 feet

Notes:

Water Level prior to abandonment: 27.10 ft below Top of Casing

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-13S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/16/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 10 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: NA

Total Depth of Overdrill: 10 ft below ground surface

Length of Well Casing and Screen Removed: 10 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 20 gallons

Final Grouting of Overdrilled Hole: 15 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

$\frac{3}{4}$  Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 0 Feet

Notes:

Well damage prevented accurate total depth measurement or water level measurement. Water level in paired well PB-13D prior to abandonment of PB-13S: 8.76 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 15 Gallons

Volume of grout used to top off overdrilled hole: 0 Gallons

3 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-16

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/3/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 10 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 45.91 ft from Top of Casing

Total Depth of Overdrill: 10 ft below ground surface

Length of Well Casing and Screen Removed: 10 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 10 gallons

Final Grouting of Overdrilled Hole: 20 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

¼ Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 0 feet

Notes:

Water Level prior to abandonment: 22.67 ft below Top of Casing

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PB-18

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/5/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 10 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 41.96 ft from Top of Casing

Total Depth of Overdrill: 10 ft below ground surface

Length of Well Casing and Screen Removed: 10 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 15 gallons

Final Grouting of Overdrilled Hole: 20 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

$\frac{3}{4}$  Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 14.22 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 20 Gallons

Volume of grout used to top off overdrilled hole: 0 Gallons



## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PZ-11S

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Derya Genc

Driller: Brandon Griffis

Date of Abandonment: 5/30/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill 10 feet below ground surface, and grout to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 27.93

Total Depth of Overdrill: 10 ft below ground surface

Length of Well Casing and Screen Removed: 10 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 5 gallons

Final Grouting of Overdrilled Hole: 70 gallons

Grout Mixture:

4 Bags of Cement Used ( 47 lbs. each)

$\frac{3}{4}$  Bags of Bentonite Used ( 50 lbs. each)

40 Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: N/A

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water level prior to abandonment: 18.09 ft below Top of Casing.

Initial volume of grout used in overdrilled hole: 40 Gallons

Volume of grout used to top off overdrilled hole: 30 Gallons

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PZ-12D

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/11/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 39 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 8-inch/6-inch (rock)

Total Depth of Well: 146.54 ft from Top of Casing      Total Depth of Overdrill: 145 ft below ground surface

Length of Well Casing and Screen Removed: 145 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 35 gallons

Final Grouting of Overdrilled Hole: 250 gallons

Grout Mixture:

4      Bags of Cement Used ( 47 lbs. each)

¼      Bags of Bentonite Used ( 50 lbs. each)

40      Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 14 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: 65.03 ft below Top of Casing

Initial volume of grout used in overdrilled hole: 250 Gallons

Volume of grout used to top off overdrilled hole: 0 Gallons

20 ft of intact PVC riser removed

## Well Abandonment Field Form

Project Name: Plant Branch Landfill Abandonment

Well ID: PZ-39

Project No.: GW8862

Drilling Co.: Cascade

Geosyntec Rep: Dalton Kegley

Driller: Chris Tindel

Date of Abandonment: 5/15/2023

Abandonment Method (i.e. Grout in Place, Overdrill and Grout, etc.): Grout in place, overdrill, grout to 32 feet below ground surface, and bentonite chip to ground surface.

Overdrill Method (i.e. Sonic, Hollow Stem Auger, Air Rotary, etc.): Sonic

Guide Rod Used During Overdrill (yes or no): No

Diameter of Overdrill Casing/Auger/Bit: 6-inch

Total Depth of Well: 49.07 ft from Top of Casing      Total Depth of Overdrill: 54 ft below ground surface

Length of Well Casing and Screen Removed: 54 feet

Total Volume of Grout Used:

Initial Grouting of Well Casing: 20 gallons

Final Grouting of Overdrilled Hole: 60 gallons

Grout Mixture:

4      Bags of Cement Used ( 47 lbs. each)

¼      Bags of Bentonite Used ( 50 lbs. each)

40      Gallons of Water Used

Cement Brand: LEHIGH

Bentonite Brand: QUIK GEL

Bentonite Chips: 7 bags (50 lbs. each) of Hole Plug

Grout Settlement After 24 Hours: 0 Feet

Notes:

Water Level prior to abandonment: Dry

Initial volume of grout used in overdrilled hole: 60 Gallons

Volume of grout used to top off overdrilled hole: 0 Gallons

35 ft of intact PVC riser removed

## APPENDIX B

# Well Maintenance and Repair Documentation Memoranda

## **Memo r a n d u m**

Date: 22 December 2022

To: Joju Abraham, Southern Company Services  
Ben Hodges, Georgia Power Company  
Regina Linch, Plant Branch

From: Joe Ivanowski and Lauren Fitzgerald,  
Geosyntec Consultants

Subject: Plant Branch Unit AP-BCD and AP-E – Well Inspection  
Documentation  
Plant Branch, Putnam County, Georgia

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Geosyntec Consultants, Inc. (Geosyntec) has prepared this memorandum to provide documentation of groundwater monitoring well and piezometer inspections and repair/maintenance, if needed, performed at Plant Branch during the second semiannual reporting period of 2022. Inspections were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells.

The groundwater monitoring well network (including associated piezometers) for Ash Ponds B, C, and D (AP-BCD) and Ash Pond E (AP-E) at Plant Branch were inspected on 8/22/2022. The groundwater monitoring well network was observed to be well maintained and in good condition; no deficiencies requiring maintenance or repair were identified.

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**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	No	No	No

6 - Based on your professional judgment, is the well construction / location appropriate to:		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWC-17S	BRGWA-23S	BRGWC-25I	BRGWC-27I
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".  
PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. Auld  
Date: 8/22/2022



**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	Yes	No	No	No	No	No	No	No	No

6 - Based on your professional judgment, is the well		BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S	BRGWC-45	BRGWC-47
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
a	Does the well recharge adequately when purged?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		BRGWC-50	BRGWC-52I	PZ-1D	PZ-1I	PZ-1S	PZ-3S	PZ-3I	PZ-3D	PZ-4S	PZ-4I	PZ-7S
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-8S	PZ-9S	PZ-10S	PZ-11S	PZ-12D	PZ-13S	PZ-14S	PZ-14I	PZ-15S	PZ-15I	PZ-16S
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-16I	PZ-17I	PZ-18S	PZ-18I	PZ-19S	PZ-19I	PZ-20S	PZ-20I	PZ-21S	PZ-21I	PZ-23I
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A

6 - Based on your professional judgment, is the well		PZ-24S	PZ-26I	PZ-28I	PZ-31S	PZ-39	PZ-40S	PZ-41S	PZ-42S	PZ-43	PZ-44	PZ-46
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
a	Does the well recharge adequately when purged?	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	No	No	No	No	No	No	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-48	PZ-49	PZ-50D	PZ-51S	PZ-51I	PZ-51D	PZ-52D	PZ-53D	PZ-54	PZ-55	PZ-56
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022



**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	N/A	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

2 - Protective Outer Casing		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

3 - Surface Pad		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

4 - Internal Well Casing		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	N/A	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PZ-57I	PZ-58I	PZ-59I	PZ-60I	PZ-61I	PZ-62I	PZ-63I	PZ-70	PB-1S	PB-2D	PB-4S
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from  
PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
**August 2022 Well Inspection Form**



1 - Location/Identification		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3 - Surface Pad		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4 - Internal Well Casing		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		PB-4D	PB-7S	PB-8S	PB-8D	PB-10S	PB-10D	PB-13S	PB-13D	IW-B-1	IW-B-2	IW-C-1
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from  
PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

**Plant Branch**  
August 2022 Well Inspection Form



1 - Location/Identification		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes

2 - Protective Outer Casing		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes

3 - Surface Pad		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes

4 - Internal Well Casing		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only)		IW-C-2	IW-D-1	IW-D-2	IW-E-1
a	Does the well recharge adequately when purged?	N/A	N/A	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	N/A	N/A	N/A	N/A

6 - Based on your professional judgment, is the well		IW-C-2	IW-D-1	IW-D-2	IW-E-1
	1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes

7 - Corrective actions completed and date(s):

NOTES: N/A - Not Applicable; Form Derived from PB-1S: unable to locate well  
Staff: J. Berisford/T. Goble/A. Schnittker/H. At  
Date: 8/22/2022

## **Memo r a n d u m**

Date: 23 January 2023

To: Joju Abraham, Southern Company Services  
Ben Hodges, Georgia Power Company  
Regina Linch, Plant Branch

From: Joe Ivanowski and Lauren Fitzgerald,  
Geosyntec Consultants

Subject: Plant Branch Unit AP-BCD and AP-E – Well Inspection  
Documentation  
Plant Branch, Putnam County, Georgia

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Geosyntec Consultants, Inc. (Geosyntec) has prepared this memorandum to provide documentation of groundwater monitoring well and piezometer inspections and repair/maintenance, if needed, performed at Plant Branch during the first semiannual reporting period of 2023. Inspections were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells.

The groundwater monitoring well network (including associated piezometers) for Ash Ponds B, C, and D (AP-BCD) and Ash Pond E (AP-E) at Plant Branch were inspected on 1/23/2023. The groundwater monitoring well network was observed to be well maintained and in good condition; no deficiencies requiring maintenance or repair were identified.

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<b>Georgia Power Site/Unit</b>	<b>Date Performed</b>	<b>Well ID</b>	<b>Maintenance/ Repair Performed</b>
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-2S	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-2I	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-5S	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-5I	
Plant Branch/Ash Pond B/C/D/E	1/23/2023	BRGWA-6S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWA-12S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWA-12I	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-17S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWA-23S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-25I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-27I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-29I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-30I	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-32S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-33S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-34S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-35S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-36S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-37S	
Plant Branch/Ash Pond E	1/23/2023	BRGWC-38S	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-45	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-47	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-50	
Plant Branch/Ash Pond B/C/D	1/23/2023	BRGWC-52I	
Plant Branch	1/23/2023	PZ-1S	
Plant Branch	1/23/2023	PZ-1I	
Plant Branch	1/23/2023	PZ-1D	
Plant Branch	1/23/2023	PZ-3S	
Plant Branch	1/23/2023	PZ-3I	
Plant Branch	1/23/2023	PZ-3D	
Plant Branch	1/23/2023	PZ-4S	
Plant Branch	1/23/2023	PZ-4I	
Plant Branch	1/23/2023	PZ-7S	
Plant Branch	1/23/2023	PZ-8S	
Plant Branch	1/23/2023	PZ-9S	
Plant Branch	1/23/2023	PZ-10S	
Plant Branch	1/23/2023	PZ-11S	
Plant Branch	1/23/2023	PZ-12D	
Plant Branch	1/23/2023	PZ-13S	
Plant Branch	1/23/2023	PZ-14S	
Plant Branch	1/23/2023	PZ-14I	
Plant Branch	1/23/2023	PZ-15S	
Plant Branch	1/23/2023	PZ-15I	
Plant Branch	1/23/2023	PZ-16S	
Plant Branch	1/23/2023	PZ-16I	
Plant Branch	1/23/2023	PZ-17I	
Plant Branch	1/23/2023	PZ-18S	
Plant Branch	1/23/2023	PZ-18I	
Plant Branch	1/23/2023	PZ-19S	
Plant Branch	1/23/2023	PZ-19I	
Plant Branch	1/23/2023	PZ-20S	
Plant Branch	1/23/2023	PZ-20I	
Plant Branch	1/23/2023	PZ-21S	
Plant Branch	1/23/2023	PZ-21I	
Plant Branch	1/23/2023	PZ-23I	
Plant Branch	1/23/2023	BRGWC-24S	
Plant Branch	1/23/2023	PZ-26I	
Plant Branch	1/23/2023	PZ-28I	
Plant Branch	1/23/2023	PZ-31S	
Plant Branch	1/23/2023	PZ-39	



<b>Georgia Power Site/Unit</b>	<b>Date Performed</b>	<b>Well ID</b>	<b>Maintenance/ Repair Performed</b>
Plant Branch	1/23/2023	PZ-40S	
Plant Branch	1/23/2023	PZ-41S	
Plant Branch	1/23/2023	PZ-42S	
Plant Branch	1/23/2023	PZ-43	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-44	
Plant Branch	1/23/2023	PZ-46	
Plant Branch	1/23/2023	PZ-48	
Plant Branch	1/23/2023	PZ-49	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-50D	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-51S	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-51I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-51D	
Plant Branch	1/23/2023	PZ-52D	
Plant Branch	1/23/2023	PZ-53D	
Plant Branch	1/23/2023	PZ-54	
Plant Branch	1/23/2023	PZ-55	
Plant Branch	1/23/2023	PZ-56	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-57I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-58I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-59I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-60I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-61I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-62I	
Plant Branch/Ash Pond B/C/D	1/23/2023	PZ-63I	
Plant Branch	1/23/2023	PZ-64I	
Plant Branch	1/23/2023	PZ-65I	
Plant Branch	1/23/2023	PZ-66I	
Plant Branch	1/23/2023	PZ-67	
Plant Branch	1/23/2023	PZ-68D	
Plant Branch	1/23/2023	PZ-69I	
Plant Branch	1/23/2023	PZ-70	
Plant Branch	1/23/2023	C2-02	
Plant Branch	1/23/2023	PB-1S	
Plant Branch	1/23/2023	PB-2D	
Plant Branch	1/23/2023	PB-4S	
Plant Branch	1/23/2023	PB-4D	
Plant Branch	1/23/2023	PB-7S	
Plant Branch	1/23/2023	PB-8S	
Plant Branch	1/23/2023	PB-8D	
Plant Branch	1/23/2023	PB-10S	
Plant Branch	1/23/2023	PB-10D	
Plant Branch	1/23/2023	PB-13S	
Plant Branch	1/23/2023	PB-13D	
Plant Branch	1/23/2023	IW-B-1	
Plant Branch	1/23/2023	IW-B-2	
Plant Branch	1/23/2023	IW-C-1	
Plant Branch	1/23/2023	IW-C-2	
Plant Branch	1/23/2023	IW-D-1	
Plant Branch	1/23/2023	IW-D-2	
Plant Branch	1/23/2023	IW-E-1	

# APPENDIX C

## Laboratory Analytical Results and Field Sampling Forms

# LABORATORY ANALYTICAL REPORTS

Fall 2022

September 07, 2022

Kelley Sharpe  
ARCADIS - Atlanta  
2839 Paces Ferry Rd  
STE 900  
Atlanta, GA 30339

RE: Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Dear Kelley Sharpe:

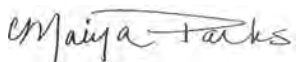
Enclosed are the analytical results for sample(s) received by the laboratory on August 24, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise 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 - Asheville
- Pace Analytical Services - Green Bay
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Maiya Parks  
maiya.parks@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Ben Hodges, Georgia Power  
Warren Johnson, ARCADIS - Atlanta  
Laura Midkiff, Georgia Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Branch CCR-Ash Pond

Pace Project No.: 92622290

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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### **Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92622290001	LR-1 (surface)	Water	08/24/22 11:52	08/24/22 14:32
92622290002	LR-1 (mid)	Water	08/24/22 11:50	08/24/22 14:32
92622290003	LR-1 (bottom)	Water	08/24/22 11:45	08/24/22 14:32
92622290004	LR+8A (surface)	Water	08/24/22 12:05	08/24/22 14:32
92622290005	LR+9A (surface)	Water	08/24/22 12:11	08/24/22 14:32
92622290006	LR+8 (surface)	Water	08/24/22 11:33	08/24/22 14:32
92622290007	LR+8 (mid)	Water	08/24/22 11:24	08/24/22 14:32
92622290008	LR+8 (bottom)	Water	08/24/22 11:30	08/24/22 14:32
92622290009	LR+9 (surface)	Water	08/24/22 11:15	08/24/22 14:32
92622290010	LR+9 (mid)	Water	08/24/22 11:09	08/24/22 14:32
92622290011	LR+9 (bottom)	Water	08/24/22 11:13	08/24/22 14:32
92622290012	LR+10 (surface)	Water	08/24/22 10:45	08/24/22 14:32
92622290013	LR-10 (mid)	Water	08/24/22 10:52	08/24/22 14:32
92622290014	LR-10 (bottom)	Water	08/24/22 10:58	08/24/22 14:32

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92622290001	LR-1 (surface)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290002	LR-1 (mid)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290003	LR-1 (bottom)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290004	LR+8A (surface)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290005	LR+9A (surface)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290006	LR+8 (surface)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290007	LR+8 (mid)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	JCM	3	PASI-A
92622290008	LR+8 (bottom)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92622290009	LR+9 (surface)	SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
92622290010	LR+9 (mid)	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
92622290011	LR+9 (bottom)	EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
92622290012	LR+10 (surface)	SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92622290013	LR-10 (mid)	EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
92622290014	LR-10 (bottom)	SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB, KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B	TMK	2	PASI-G

PASI-A = Pace Analytical Services - Asheville  
PASI-G = Pace Analytical Services - Green Bay  
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR-1 (surface)	Lab ID: 92622290001	Collected: 08/24/22 11:52	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	08/25/22 12:48	08/26/22 13:52	7440-09-7	
Sodium	5.1	mg/L	1.0	1	08/25/22 12:48	08/26/22 13:52	7440-23-5	
Calcium	5.6	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:00	7440-70-2	
Magnesium	2.8	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:00	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:21	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:21	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	58.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	33.6	mg/L	10.0	1		08/29/22 21:18		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	33.6	mg/L	10.0	1		08/29/22 21:18		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.6	mg/L	1.0	1		09/01/22 07:09	16887-00-6	
Fluoride	0.10	mg/L	0.10	1		09/01/22 07:09	16984-48-8	
Sulfate	1.8	mg/L	1.0	1		09/01/22 07:09	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

<b>Sample: LR-1 (mid)</b>		<b>Lab ID: 92622290002</b>		Collected: 08/24/22 11:50	Received: 08/24/22 14:32	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Calcium	<b>5.6</b>	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:06	7440-70-2	
Magnesium	<b>2.8</b>	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:06	7439-95-4	
Potassium	<b>2.8</b>	mg/L	0.20	1	08/25/22 12:48	08/26/22 13:57	7440-09-7	
Sodium	<b>5.1</b>	mg/L	1.0	1	08/25/22 12:48	08/26/22 13:57	7440-23-5	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:27	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:27	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>56.0</b>	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Green Bay						
Alkalinity, Total as CaCO <sub>3</sub>	<b>33.5</b>	mg/L	10.0	1		08/29/22 21:38		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>33.5</b>	mg/L	10.0	1		08/29/22 21:38		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.6</b>	mg/L	1.0	1		09/01/22 07:23	16887-00-6	
Fluoride	<b>0.10</b>	mg/L	0.10	1		09/01/22 07:23	16984-48-8	
Sulfate	<b>1.8</b>	mg/L	1.0	1		09/01/22 07:23	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR-1 (bottom)	Lab ID: 92622290003	Collected: 08/24/22 11:45	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:01	7440-09-7	
Sodium	5.0	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:01	7440-23-5	
Calcium	5.6	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:20	7440-70-2	
Magnesium	2.7	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:20	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:33	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:33	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	65.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	33.4	mg/L	10.0	1		08/29/22 21:44		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	33.4	mg/L	10.0	1		08/29/22 21:44		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.6	mg/L	1.0	1		09/01/22 07:38	16887-00-6	
Fluoride	0.10	mg/L	0.10	1		09/01/22 07:38	16984-48-8	
Sulfate	1.7	mg/L	1.0	1		09/01/22 07:38	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR+8A (surface)		Lab ID: 92622290004	Collected: 08/24/22 12:05	Received: 08/24/22 14:32	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:06	7440-09-7	
Sodium	4.9	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:06	7440-23-5	
Calcium	5.1	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:25	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:25	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:39	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:39	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	63.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	30.8	mg/L	10.0	1		08/29/22 21:50		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	30.8	mg/L	10.0	1		08/29/22 21:50		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.6	mg/L	1.0	1		09/01/22 08:36	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/01/22 08:36	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		09/01/22 08:36	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR+9A (surface)	Lab ID: 92622290005	Collected: 08/24/22 12:11	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Calcium	5.2	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:30	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:30	7439-95-4	
Potassium	2.7	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:11	7440-09-7	
Sodium	5.0	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:11	7440-23-5	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:45	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:45	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	51.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	30.8	mg/L	10.0	1		08/29/22 21:55		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	30.8	mg/L	10.0	1		08/29/22 21:55		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.6	mg/L	1.0	1		09/01/22 09:05	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/01/22 09:05	16984-48-8	
Sulfate	2.4	mg/L	1.0	1		09/01/22 09:05	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR+8 (surface)	Lab ID: 92622290006	Collected: 08/24/22 11:33		Received: 08/24/22 14:32		Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:16	7440-09-7	
Sodium	5.0	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:16	7440-23-5	
Calcium	5.3	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:34	7440-70-2	
Magnesium	2.7	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:34	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:51	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:51	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	58.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	31.4	mg/L	10.0	1		08/29/22 22:01		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	31.4	mg/L	10.0	1		08/29/22 22:01		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.7	mg/L	1.0	1		09/01/22 09:20	16887-00-6	
Fluoride	0.10	mg/L	0.10	1		09/01/22 09:20	16984-48-8	
Sulfate	2.2	mg/L	1.0	1		09/01/22 09:20	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR+8 (mid)	Lab ID: 92622290007	Collected: 08/24/22 11:24	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.8	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:40	7440-09-7	
Sodium	5.1	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:40	7440-23-5	
Calcium	5.4	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:39	7440-70-2	
Magnesium	2.7	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:39	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 00:57	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 00:57	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	63.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	31.4	mg/L	10.0	1		08/29/22 22:21		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	31.4	mg/L	10.0	1		08/29/22 22:21		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.7	mg/L	1.0	1		09/01/22 09:34	16887-00-6	
Fluoride	0.10	mg/L	0.10	1		09/01/22 09:34	16984-48-8	
Sulfate	2.2	mg/L	1.0	1		09/01/22 09:34	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond

Pace Project No.: 92622290

Sample: LR+8 (bottom)	Lab ID: 92622290008	Collected: 08/24/22 11:30	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.6	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:45	7440-09-7	
Sodium	4.8	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:45	7440-23-5	
Calcium	5.2	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:44	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:44	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 01:03	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 01:03	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	51.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	31.9	mg/L	10.0	1		08/29/22 22:27		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	31.9	mg/L	10.0	1		08/29/22 22:27		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.6	mg/L	1.0	1		09/01/22 10:18	16887-00-6	M1
Fluoride	0.10	mg/L	0.10	1		09/01/22 10:18	16984-48-8	
Sulfate	2.1	mg/L	1.0	1		09/01/22 10:18	14808-79-8	M1

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

<b>Sample: LR+9 (surface)</b>		<b>Lab ID: 92622290009</b>	Collected: 08/24/22 11:15	Received: 08/24/22 14:32	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Calcium	<b>5.0</b>	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:49	7440-70-2	
Magnesium	<b>2.5</b>	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:49	7439-95-4	
Potassium	<b>2.7</b>	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:50	7440-09-7	
Sodium	<b>4.8</b>	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:50	7440-23-5	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 01:21	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 01:21	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>68.0</b>	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Green Bay						
Alkalinity, Total as CaCO <sub>3</sub>	<b>30.8</b>	mg/L	10.0	1		08/29/22 22:33		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>30.8</b>	mg/L	10.0	1		08/29/22 22:33		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.7</b>	mg/L	1.0	1		09/01/22 13:50	16887-00-6	
Fluoride	<b>0.10</b>	mg/L	0.10	1		09/01/22 13:50	16984-48-8	
Sulfate	<b>2.2</b>	mg/L	1.0	1		09/01/22 13:50	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR+9 (mid)	Lab ID: 92622290010	Collected: 08/24/22 11:09	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Calcium	5.1	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:53	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:53	7439-95-4	
Potassium	2.7	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:55	7440-09-7	
Sodium	5.0	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:55	7440-23-5	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 01:27	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 01:27	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	52.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	31.1	mg/L	10.0	1		08/29/22 22:38		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	31.1	mg/L	10.0	1		08/29/22 22:38		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.7	mg/L	1.0	1		09/01/22 15:04	16887-00-6	
Fluoride	0.10	mg/L	0.10	1		09/01/22 15:04	16984-48-8	
Sulfate	2.2	mg/L	1.0	1		09/01/22 15:04	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

<b>Sample: LR+9 (bottom)</b>		<b>Lab ID: 92622290011</b>		Collected: 08/24/22 11:13	Received: 08/24/22 14:32	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Calcium	<b>5.2</b>	mg/L	1.0	1	08/25/22 12:48	08/25/22 22:58	7440-70-2	
Magnesium	<b>2.6</b>	mg/L	0.050	1	08/25/22 12:48	08/25/22 22:58	7439-95-4	
Potassium	<b>2.8</b>	mg/L	0.20	1	08/25/22 12:48	08/26/22 14:59	7440-09-7	
Sodium	<b>5.1</b>	mg/L	1.0	1	08/25/22 12:48	08/26/22 14:59	7440-23-5	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 01:32	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 01:32	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>58.0</b>	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B Pace Analytical Services - Green Bay						
Alkalinity, Total as CaCO <sub>3</sub>	<b>31.0</b>	mg/L	10.0	1		08/29/22 22:44		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>31.0</b>	mg/L	10.0	1		08/29/22 22:44		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.7</b>	mg/L	1.0	1		09/01/22 15:18	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/01/22 15:18	16984-48-8	
Sulfate	<b>2.2</b>	mg/L	1.0	1		09/01/22 15:18	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR+10 (surface)	Lab ID: 92622290012	Collected: 08/24/22 10:45		Received: 08/24/22 14:32		Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Calcium	5.1	mg/L	1.0	1	08/25/22 12:48	08/25/22 23:03	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	08/25/22 12:48	08/25/22 23:03	7439-95-4	
Potassium	2.8	mg/L	0.20	1	08/25/22 12:48	08/26/22 15:04	7440-09-7	
Sodium	5.0	mg/L	1.0	1	08/25/22 12:48	08/26/22 15:04	7440-23-5	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 01:38	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 01:38	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	64.0	mg/L	25.0	1		08/26/22 13:57		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	29.2	mg/L	10.0	1		08/29/22 22:50		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	29.2	mg/L	10.0	1		08/29/22 22:50		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.8	mg/L	1.0	1		09/01/22 15:33	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/01/22 15:33	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		09/01/22 15:33	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR-10 (mid)	Lab ID: 92622290013	Collected: 08/24/22 10:52	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.7	mg/L	0.20	1	08/25/22 12:48	08/26/22 15:09	7440-09-7	
Sodium	4.9	mg/L	1.0	1	08/25/22 12:48	08/26/22 15:09	7440-23-5	
Calcium	4.9	mg/L	1.0	1	08/25/22 12:48	08/25/22 23:17	7440-70-2	
Magnesium	2.4	mg/L	0.050	1	08/25/22 12:48	08/25/22 23:17	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/02/22 12:19	09/03/22 01:44	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/02/22 12:19	09/03/22 01:44	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	48.0	mg/L	25.0	1		08/26/22 14:00		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	29.2	mg/L	10.0	1		08/29/22 22:56		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	29.2	mg/L	10.0	1		08/29/22 22:56		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.8	mg/L	1.0	1		09/01/22 15:47	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/01/22 15:47	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		09/01/22 15:47	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Sample: LR-10 (bottom)	Lab ID: 92622290014	Collected: 08/24/22 10:58	Received: 08/24/22 14:32	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.6	mg/L	0.20	1	08/25/22 12:48	08/26/22 15:14	7440-09-7	
Sodium	4.8	mg/L	1.0	1	08/25/22 12:48	08/26/22 15:14	7440-23-5	
Calcium	4.8	mg/L	1.0	1	08/25/22 12:48	08/25/22 23:22	7440-70-2	
Magnesium	2.4	mg/L	0.050	1	08/25/22 12:48	08/25/22 23:22	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	09/06/22 12:19	09/06/22 21:06	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/06/22 12:19	09/06/22 21:06	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	45.0	mg/L	25.0	1		08/26/22 14:00		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B								
Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO <sub>3</sub>	29.7	mg/L	10.0	1		08/29/22 23:02		
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	29.7	mg/L	10.0	1		08/29/22 23:02		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	4.0	mg/L	1.0	1		09/01/22 16:02	16887-00-6	
Fluoride	0.10	mg/L	0.10	1		09/01/22 16:02	16984-48-8	
Sulfate	2.4	mg/L	1.0	1		09/01/22 16:02	14808-79-8	

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

QC Batch: 719530 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014

METHOD BLANK: 3750032 Matrix: Water  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	08/25/22 20:58	
Magnesium	mg/L	ND	0.050	08/25/22 20:58	
Potassium	mg/L	ND	0.20	08/25/22 20:58	
Sodium	mg/L	ND	1.0	08/26/22 12:12	

LABORATORY CONTROL SAMPLE: 3750033

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	
Magnesium	mg/L	1	1.1	105	80-120	
Potassium	mg/L	1	1.1	112	80-120	
Sodium	mg/L	1	.9J	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3750034 3750035

Parameter	Units	92618667001 Result	MS Spike Conc.	MSD Spike Conc.	3750034		3750035		% Rec Limits	RPD	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec				
Calcium	mg/L	19400 ug/L	1	1	19.6	19.9	21	50	75-125	2	20	M1
Magnesium	mg/L	7380 ug/L	1	1	8.3	8.3	88	96	75-125	1	20	
Potassium	mg/L	1240 ug/L	1	1	2.2	2.3	96	104	75-125	4	20	
Sodium	mg/L	14100 ug/L	1	1	14.6	14.7	53	69	75-125	1	20	M1

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

QC Batch: 721240 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013

METHOD BLANK: 3757929 Matrix: Water  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/02/22 22:57	
Cobalt	mg/L	ND	0.0050	09/02/22 22:57	

LABORATORY CONTROL SAMPLE: 3757930

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.99	99	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3758268 3758269

Parameter	Units	92621399027 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MS Result	MSD Result						
Boron	mg/L	0.015J	1	1	0.99	1.0	97	98	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

QC Batch: 721533 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92622290014

METHOD BLANK: 3759377 Matrix: Water

Associated Lab Samples: 92622290014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/06/22 19:31	
Cobalt	mg/L	ND	0.0050	09/06/22 19:31	

LABORATORY CONTROL SAMPLE: 3759378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.95	95	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3759379 3759380

Parameter	Units	92621970001		3759379		3759380		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Boron	mg/L	460 ug/L	1	1	1.3	1.3	83	85	75-125	2	20
Cobalt	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

QC Batch: 719723 Analysis Method: SM 2540C-2015  
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014

METHOD BLANK: 3751162 Matrix: Water  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	08/26/22 13:54	

LABORATORY CONTROL SAMPLE: 3751163

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	382	96	80-120	

SAMPLE DUPLICATE: 3751165

Parameter	Units	92622290005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	51.0	52.0	2	25	

SAMPLE DUPLICATE: 3751739

Parameter	Units	92622142001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	481	469	3	25	

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**QUALITY CONTROL DATA**

Project: Plant Branch CCR-Ash Pond

Pace Project No.: 92622290

QC Batch:	424693	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014		

METHOD BLANK:	2445845	Matrix:	Water
Associated Lab Samples:	92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007, 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	10.0	08/29/22 21:07	

LABORATORY CONTROL SAMPLE: 2445846						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	200	210	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2445847												2445848	
Parameter	Units	92622290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Alkalinity, Total as CaCO3	mg/L	33.6	200	200	243	243	105	105	80-120	0	20		

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

QC Batch: 720260 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007

METHOD BLANK: 3753399 Matrix: Water  
Associated Lab Samples: 92622290001, 92622290002, 92622290003, 92622290004, 92622290005, 92622290006, 92622290007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	08/31/22 23:15	
Fluoride	mg/L	ND	0.10	08/31/22 23:15	
Sulfate	mg/L	ND	1.0	08/31/22 23:15	

LABORATORY CONTROL SAMPLE: 3753400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3753401 3753402

Parameter	Units	92621399019		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	2.5	50	50	59.3	59.3	113	114	90-110	0	10	M1	
Fluoride	mg/L	0.051J	2.5	2.5	2.6	2.6	102	104	90-110	2	10		
Sulfate	mg/L	1.5	50	50	57.8	57.8	113	113	90-110	0	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3753403 3753404

Parameter	Units	92621399029		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Chloride	mg/L	0.88J	50	50	58.0	57.9	114	114	90-110	0	10	M1	
Fluoride	mg/L	0.053J	2.5	2.5	2.6	2.6	102	103	90-110	1	10		
Sulfate	mg/L	0.87J	50	50	57.5	57.6	113	113	90-110	0	10	M1	

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond

Pace Project No.: 92622290

QC Batch:	720261	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014

METHOD BLANK: 3753405 Matrix: Water  
Associated Lab Samples: 92622290008, 92622290009, 92622290010, 92622290011, 92622290012, 92622290013, 92622290014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/01/22 09:49	
Fluoride	mg/L	ND	0.10	09/01/22 09:49	
Sulfate	mg/L	ND	1.0	09/01/22 09:49	

LABORATORY CONTROL SAMPLE: 3753406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.5	101	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3753407 3753408

Parameter	Units	92622290008		3753407		3753408		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.6	50	50	61.6	61.0	116	115	90-110	1	10	M1	
Fluoride	mg/L	0.10	2.5	2.5	2.8	2.7	107	104	90-110	3	10		
Sulfate	mg/L	2.1	50	50	59.9	59.2	116	114	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3753409 3753410

Parameter	Units	92620625004		3753409		3753410		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.3	50	50	61.9	61.1	117	116	90-110	1	10	M1	
Fluoride	mg/L	0.18	2.5	2.5	2.9	2.8	108	106	90-110	2	10		
Sulfate	mg/L	522	50	50	566	565	87	85	90-110	0	10	M1	

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## QUALIFIERS

Project: Plant Branch CCR-Ash Pond

Pace Project No.: 92622290

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### 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92622290001	LR-1 (surface)	EPA 3010A	719530	EPA 6010D	719707
92622290002	LR-1 (mid)	EPA 3010A	719530	EPA 6010D	719707
92622290003	LR-1 (bottom)	EPA 3010A	719530	EPA 6010D	719707
92622290004	LR+8A (surface)	EPA 3010A	719530	EPA 6010D	719707
92622290005	LR+9A (surface)	EPA 3010A	719530	EPA 6010D	719707
92622290006	LR+8 (surface)	EPA 3010A	719530	EPA 6010D	719707
92622290007	LR+8 (mid)	EPA 3010A	719530	EPA 6010D	719707
92622290008	LR+8 (bottom)	EPA 3010A	719530	EPA 6010D	719707
92622290009	LR+9 (surface)	EPA 3010A	719530	EPA 6010D	719707
92622290010	LR+9 (mid)	EPA 3010A	719530	EPA 6010D	719707
92622290011	LR+9 (bottom)	EPA 3010A	719530	EPA 6010D	719707
92622290012	LR+10 (surface)	EPA 3010A	719530	EPA 6010D	719707
92622290013	LR-10 (mid)	EPA 3010A	719530	EPA 6010D	719707
92622290014	LR-10 (bottom)	EPA 3010A	719530	EPA 6010D	719707
92622290001	LR-1 (surface)	EPA 3005A	721240	EPA 6020B	721359
92622290002	LR-1 (mid)	EPA 3005A	721240	EPA 6020B	721359
92622290003	LR-1 (bottom)	EPA 3005A	721240	EPA 6020B	721359
92622290004	LR+8A (surface)	EPA 3005A	721240	EPA 6020B	721359
92622290005	LR+9A (surface)	EPA 3005A	721240	EPA 6020B	721359
92622290006	LR+8 (surface)	EPA 3005A	721240	EPA 6020B	721359
92622290007	LR+8 (mid)	EPA 3005A	721240	EPA 6020B	721359
92622290008	LR+8 (bottom)	EPA 3005A	721240	EPA 6020B	721359
92622290009	LR+9 (surface)	EPA 3005A	721240	EPA 6020B	721359
92622290010	LR+9 (mid)	EPA 3005A	721240	EPA 6020B	721359
92622290011	LR+9 (bottom)	EPA 3005A	721240	EPA 6020B	721359
92622290012	LR+10 (surface)	EPA 3005A	721240	EPA 6020B	721359
92622290013	LR-10 (mid)	EPA 3005A	721240	EPA 6020B	721359
92622290014	LR-10 (bottom)	EPA 3005A	721533	EPA 6020B	721631
92622290001	LR-1 (surface)	SM 2540C-2015	719723		
92622290002	LR-1 (mid)	SM 2540C-2015	719723		
92622290003	LR-1 (bottom)	SM 2540C-2015	719723		
92622290004	LR+8A (surface)	SM 2540C-2015	719723		
92622290005	LR+9A (surface)	SM 2540C-2015	719723		
92622290006	LR+8 (surface)	SM 2540C-2015	719723		
92622290007	LR+8 (mid)	SM 2540C-2015	719723		
92622290008	LR+8 (bottom)	SM 2540C-2015	719723		
92622290009	LR+9 (surface)	SM 2540C-2015	719723		
92622290010	LR+9 (mid)	SM 2540C-2015	719723		
92622290011	LR+9 (bottom)	SM 2540C-2015	719723		
92622290012	LR+10 (surface)	SM 2540C-2015	719723		
92622290013	LR-10 (mid)	SM 2540C-2015	719723		
92622290014	LR-10 (bottom)	SM 2540C-2015	719723		
92622290001	LR-1 (surface)	SM 2320B	424693		
92622290002	LR-1 (mid)	SM 2320B	424693		
92622290003	LR-1 (bottom)	SM 2320B	424693		
92622290004	LR+8A (surface)	SM 2320B	424693		
92622290005	LR+9A (surface)	SM 2320B	424693		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92622290

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92622290006	LR+8 (surface)	SM 2320B	424693		
92622290007	LR+8 (mid)	SM 2320B	424693		
92622290008	LR+8 (bottom)	SM 2320B	424693		
92622290009	LR+9 (surface)	SM 2320B	424693		
92622290010	LR+9 (mid)	SM 2320B	424693		
92622290011	LR+9 (bottom)	SM 2320B	424693		
92622290012	LR+10 (surface)	SM 2320B	424693		
92622290013	LR-10 (mid)	SM 2320B	424693		
92622290014	LR-10 (bottom)	SM 2320B	424693		
92622290001	LR-1 (surface)	EPA 300.0 Rev 2.1 1993	720260		
92622290002	LR-1 (mid)	EPA 300.0 Rev 2.1 1993	720260		
92622290003	LR-1 (bottom)	EPA 300.0 Rev 2.1 1993	720260		
92622290004	LR+8A (surface)	EPA 300.0 Rev 2.1 1993	720260		
92622290005	LR+9A (surface)	EPA 300.0 Rev 2.1 1993	720260		
92622290006	LR+8 (surface)	EPA 300.0 Rev 2.1 1993	720260		
92622290007	LR+8 (mid)	EPA 300.0 Rev 2.1 1993	720260		
92622290008	LR+8 (bottom)	EPA 300.0 Rev 2.1 1993	720261		
92622290009	LR+9 (surface)	EPA 300.0 Rev 2.1 1993	720261		
92622290010	LR+9 (mid)	EPA 300.0 Rev 2.1 1993	720261		
92622290011	LR+9 (bottom)	EPA 300.0 Rev 2.1 1993	720261		
92622290012	LR+10 (surface)	EPA 300.0 Rev 2.1 1993	720261		
92622290013	LR-10 (mid)	EPA 300.0 Rev 2.1 1993	720261		
92622290014	LR-10 (bottom)	EPA 300.0 Rev 2.1 1993	720261		

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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:

Company: ARCADIS - Atlanta  
 Address: 2839 Paces Ferry Rd  
 Atlanta, GA 30339  
 Email: warren.johnson@arcadis.com  
 Phone: 678-485-5298  
 Requested Due Date: 5 day TAT

### Section B

Required Project Information:

Report To: Joli Abraham, Ben Hodges  
 Copy To: Warren Johnson  
 Purchase Order #: SCS10382775  
 Project Name: Plant Branch  
 Project #:

### Section C

Invoice Information:

Attention: Joli Abraham  
 Company Name: GPC  
 Address:  
 Pace Quote:  
 Pace Project Manager: Nayla Park@pacelab.com  
 Pace Profile #: 2239

Regulatory Agency  
 State / Location  
 GA

ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	CCR Appendix III <sup>1</sup>	Major ions <sup>2</sup>	Cobalt	Residual Chl
					START DATE	START TIME			END DATE	END TIME	Unpreserved	H2SO4	HNO3	HCl	NaOH						
1	LR-1 (surface)	WS	G	G	8/24/2022	1152															
2	LR-1 (mid)	WS	G	G	8/24/2022	1150															
3	LR-1 (bottom)	WS	G	G	8/24/2022	1145															
4	LR+8A (surface)	WS	G	G	8/24/2022	1205															
5	LR+9A (surface)	WS	G	G	8/24/2022	1211															
6	LR+8 (surface)	WS	G	G	8/24/2022	1133															
7	LR+8 (mid)	WS	G	G	8/24/2022	1124															
8	LR+8 (bottom)	WS	G	G	8/24/2022	1130															
9	LR+9 (surface)	WS	G	G	8/24/2022	1115															
10	LR+9 (mid)	WS	G	G	8/24/2022	1104															
11	LR+9 (bottom)	WS	G	G	8/24/2022	1113															
12	LR+10 (surface)	WS	G	G	8/24/2022	1045															

Request Analytical Element: DMA  
**MO#: 92622290**  
 92622290

ADDITIONAL COMMENTS		RELAQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Slide Stresses			8/24/22	1432	Charles Hinkle	8/24/22	1432	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE: *Charles Hinkle*

PRINT Name of SAMPLER: *Charles Hinkle*

SIGNATURE OF SAMPLER: *Charles Hinkle*

DATE Signed: *8/24/22*

**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:

Page : 1 Of 1

Company:	ARCADIS - Atlanta	Report To:	John Abraham, Allison Keeler, Ben Hodges
Address:	2839 Paces Ferry Rd Atlanta, GA 30339	Copy To:	Warren Johnson
Email:	warren.johnson@arcadis.com	Purchase Order #:	SCS10382775
Phone:	678.485.5298	Fax:	Plant Branch
Requested Due Date:	5 day TAT	Project Name:	Plant Branch
		Project #:	
		Address:	
		Attention:	John Abraham
		Company Name:	GPC
		Address:	
		Page Quote:	
		Page Project Manager:	Mayla Perke@pceclabs.com
		Page Profile #:	2239
		Regulatory Agency	
		State / Location	GA

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX		CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N																								
		Drying Water	Water										DW	WT	WW	P	SL	OL	WP			AK	OT	TS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other													
1	LR-10 (mid)				WS	G	8/24/2022	1052													X																								
2	LR-10 (bottom)				WS	G	8/24/2022	1058													X																								
3																																													
4																																													
5																																													
6																																													
7																																													
8																																													
9																																													
10																																													
11																																													
12																																													

**W0#: 92622290**  
 PH: MP Due Date: 08/31/22  
 CLIENT: GR-Gr-eadR11

RELINQUISHED BY / AFFILIATION				ACCEPTED BY / AFFILIATION			
RELINQUISHED BY	AFFILIATION	DATE	TIME	ACCEPTED BY	AFFILIATION	DATE	TIME
<i>Siddi Stevens</i>		8/24/22	1432	<i>Emilio Hanks</i>		8/24/22	1432

SAMPLER NAME AND SIGNATURE		TEMP IN C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	<i>Grace Kelly Cashen</i>				
SIGNATURE of SAMPLER:	<i>Grace Kelly Cashen</i>	DATE Signed:	8/24/22		



DC#\_Title: ENV-FRM-HUN1-0083 v01\_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

*Arcadis*

Project #:

WO#: 92622290

PM: MP

Due Date: 08/31/22

CLIENT: GA-ArcadAtI

Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *9/24/22*  
*CM*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: *230*

Type of Ice:  Wet  Blue  None

Cooler Temp: *12.4* Correction Factor: Add/Subtract (°C) *0.0*

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *12.4*

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>W</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

pH Strip Lot# 10D4611

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCURF Review: \_\_\_\_\_

Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_

Date: \_\_\_\_\_





Effective Date: 05/12/2022

WO#: 92622290

Project #

PH: MP

Due Date: 08/31/22

CLIENT: GA-ArcadAt1

Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Options: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

Bottom half of box is to list number of bottles

\*Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1			2																									
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10			2																									
11			2																									
12			8																									

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



Effective Date: 05/12/2022

check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

ceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

Bottom half of box is to list number of bottles

\*Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																												
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pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

October 03, 2022

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Orders: 591355,590855 and 590845

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 24, 2022 and August 29, 2022. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package is being revised to include 6 missing metals.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0003  
Enclosures



**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 591355 GEL Work Order: 591355

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 590855 GEL Work Order: 590855

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_



**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 590845 GEL Work Order: 590845

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_





# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-01	Project: GPCC00101
Sample ID: 591355001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 12:00	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Fluoride		1.10	0.0330	0.100	mg/L		1	HXC1	08/30/22	1616	2310523	1
Sulfate		828	13.3	40.0	mg/L		100	HXC1	08/31/22	0143	2310523	2
Chloride		10.8	0.335	1.00	mg/L		5	HXC1	08/31/22	0213	2310523	3
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	0959	2310246	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	1949	2310153	5
Arsenic	J	0.00242	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0176	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00464	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.504	0.000300	0.00100	mg/L	1.00	1					
Iron		48.9	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000871	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0476	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.30	0.0800	0.300	mg/L	1.00	1					
Sodium		33.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.0323	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0240	2310153	6
Selenium	J	0.00332	0.00150	0.00500	mg/L	1.00	1					
Boron		0.449	0.0260	0.0750	mg/L	1.00	5	BAJ	09/07/22	1857	2310153	7
Calcium		137	0.400	1.00	mg/L	1.00	5					
Magnesium		76.7	0.0500	0.150	mg/L	1.00	5					
Manganese		27.1	0.100	0.500	mg/L	1.00	100	BAJ	09/07/22	1952	2310153	8
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		1350	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	9
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			HH2	09/07/22	1344	2310459	10
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-01 Project: GPCC00101  
Sample ID: 591355001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-58I	Project: GPCC00101
Sample ID: 591355002	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 10:30	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		3.81			SU			EOS1	08/24/22	1030	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		1.09	0.0330	0.100	mg/L	1		HXC1	08/30/22	1646	2310523	2
Sulfate		840	13.3	40.0	mg/L	100		HXC1	08/31/22	0243	2310523	3
Chloride		10.7	0.335	1.00	mg/L	5		HXC1	08/31/22	0313	2310523	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1001	2310246	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2001	2310153	6
Arsenic	J	0.00245	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0181	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00460	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.503	0.000300	0.00100	mg/L	1.00	1					
Iron		48.9	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000894	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0488	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.25	0.0800	0.300	mg/L	1.00	1					
Sodium		34.3	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.0335	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0244	2310153	7
Selenium	J	0.00348	0.00150	0.00500	mg/L	1.00	1					
Boron		0.464	0.0260	0.0750	mg/L	1.00	5	BAJ	09/07/22	1900	2310153	8
Calcium		146	0.400	1.00	mg/L	1.00	5					
Magnesium		80.0	0.0500	0.150	mg/L	1.00	5					
Manganese		29.8	0.100	0.500	mg/L	1.00	100	BAJ	09/08/22	0700	2310153	9
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1380	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	10
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-58I Project: GPCC00101  
Sample ID: 591355002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			HH2	09/07/22	1346	2310459	11
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-60I	Project: GPCC00101
Sample ID: 591355003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 12:20	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.55			SU			EOS1	08/24/22	1220	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		1.32	0.0330	0.100	mg/L	1		HXC1	08/30/22	1716	2310523	2
Sulfate		1770	26.6	80.0	mg/L	200		HXC1	08/31/22	0343	2310523	3
Chloride		26.7	0.335	1.00	mg/L	5		HXC1	08/31/22	0413	2310523	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1013	2310246	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2007	2310153	6
Arsenic	J	0.00358	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0226	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.0170	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		0.533	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.101	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.7	0.0800	0.300	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.0703	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0247	2310153	7
Selenium	J	0.00417	0.00150	0.00500	mg/L	1.00	1					
Boron		0.293	0.0260	0.0750	mg/L	1.00	5	BAJ	09/07/22	1909	2310153	8
Cobalt		3.57	0.00150	0.00500	mg/L	1.00	5					
Magnesium		187	0.0500	0.150	mg/L	1.00	5					
Sodium		62.7	0.400	1.25	mg/L	1.00	5					
Calcium		281	0.800	2.00	mg/L	1.00	10	BAJ	09/07/22	2010	2310153	9
Manganese		179	1.00	5.00	mg/L	1.00	1000	BAJ	09/08/22	0702	2310153	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2830	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	11
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-60I Project: GPCC00101  
Sample ID: 591355003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	2.00	1.45	4.00	mg/L			HH2	09/07/22	1347	2310459	12
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	2.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-02	Project: GPCC00101
Sample ID: 591355004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 24-AUG-22 15:55	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		0.207	0.0670	0.200	mg/L		1	HXC1	08/30/22	1746	2310523	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1014	2310246	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2025	2310153	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0251	2310153	4
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/08/22	0648	2310153	5
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	6
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	3.00	1.45	4.00	mg/L			HH2	09/07/22	1348	2310459	7
Bicarbonate alkalinity (CaCO3)	J	3.00	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-02 Project: GPCC00101  
Sample ID: 591355004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-29I	Project: GPCC00101
Sample ID: 591355005	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 17:10	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.39			SU			EOS1	08/24/22	1710	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.84	0.0670	0.200	mg/L		1	JLD1	08/30/22	2352	2310658	2
Fluoride		0.103	0.0330	0.100	mg/L		1					
Sulfate		298	13.3	40.0	mg/L		100	JLD1	08/31/22	1838	2310658	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1016	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2028	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0175	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00660	0.000300	0.00100	mg/L	1.00	1					
Iron		24.8	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00304	0.00300	0.0100	mg/L	1.00	1					
Magnesium		7.83	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		10.2	0.0800	0.300	mg/L	1.00	1					
Sodium		17.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.000845	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0302	2310153	6
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		1.13	0.0520	0.150	mg/L	1.00	10	BAJ	09/07/22	1913	2310153	7
Calcium		61.0	0.800	2.00	mg/L	1.00	10					
Manganese		1.20	0.0100	0.0500	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		383	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	8
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-29I  
Sample ID: 591355005

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			HH2	09/07/22	1350	2310459	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-30I	Project: GPCC00101
Sample ID: 591355006	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 16:09	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.38			SU			EOS1	08/24/22	1609	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.91	0.0670	0.200	mg/L		1	JLD1	08/31/22	0124	2310658	2
Fluoride		0.318	0.0330	0.100	mg/L		1					
Sulfate		935	13.3	40.0	mg/L		100	JLD1	08/31/22	1157	2310658	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1018	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2031	2310153	5
Arsenic	J	0.00283	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0389	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00163	0.000300	0.00100	mg/L	1.00	1					
Iron		1.41	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0238	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00141	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.13	0.0800	0.300	mg/L	1.00	1					
Sodium		30.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0305	2310153	6
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		2.15	0.104	0.300	mg/L	1.00	20	BAJ	09/07/22	1916	2310153	7
Calcium		316	1.60	4.00	mg/L	1.00	20					
Magnesium		57.3	0.200	0.600	mg/L	1.00	20					
Manganese		1.15	0.0200	0.100	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1540	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	8
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-30I  
Sample ID: 591355006

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		132	1.45	4.00	mg/L			HH2	09/07/22	1351	2310459	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		132	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-50	Project: GPCC00101
Sample ID: 591355007	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 14:51	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.01			SU			EOS1	08/24/22	1451	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.497	0.0330	0.100	mg/L	1		JLD1	08/31/22	0155	2310658	2
Sulfate		1400	13.3	40.0	mg/L	100		JLD1	08/31/22	1228	2310658	3
Chloride		15.8	0.335	1.00	mg/L	5		JLD1	08/31/22	1259	2310658	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1019	2310246	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2035	2310153	6
Arsenic	J	0.00250	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0166	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00818	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		0.200	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0428	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.4	0.0800	0.300	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00831	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0309	2310153	7
Selenium	J	0.00176	0.00150	0.00500	mg/L	1.00	1					
Boron		0.406	0.0260	0.0750	mg/L	1.00	5	BAJ	09/07/22	1919	2310153	8
Calcium		215	0.400	1.00	mg/L	1.00	5					
Cobalt		1.42	0.00150	0.00500	mg/L	1.00	5					
Magnesium		151	0.0500	0.150	mg/L	1.00	5					
Sodium		51.7	0.400	1.25	mg/L	1.00	5					
Manganese		83.4	1.00	5.00	mg/L	1.00	1000	BAJ	09/08/22	0704	2310153	9
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1990	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	10
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-50 Project: GPCC00101  
Sample ID: 591355007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		9.40	1.45	4.00	mg/L			HH2	09/07/22	1353	2310459	11
Bicarbonate alkalinity (CaCO <sub>3</sub> )		9.40	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-03	Project: GPCC00101
Sample ID: 591355008	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 12:00	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Fluoride		0.163	0.0330	0.100	mg/L		1	JLD1	08/31/22	0226	2310658	1
Chloride		15.0	0.670	2.00	mg/L		10	JLD1	08/31/22	1330	2310658	2
Sulfate		114	1.33	4.00	mg/L		10					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1021	2310246	3
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2053	2310153	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0570	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		33.8	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00349	0.000300	0.00100	mg/L	1.00	1					
Iron		0.160	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		17.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000477	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.24	0.0800	0.300	mg/L	1.00	1					
Sodium		14.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0313	2310153	5
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		0.0448	0.00520	0.0150	mg/L	1.00	1	BAJ	09/08/22	0650	2310153	6
Manganese		0.297	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		246	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	7
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		42.4	1.45	4.00	mg/L			HH2	09/07/22	1746	2310460	8
Bicarbonate alkalinity (CaCO3)		42.4	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-03 Project: GPCC00101  
Sample ID: 591355008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-45	Project: GPCC00101
Sample ID: 591355009	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 10:10	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.74			SU			EOS1	08/25/22	1010	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.166	0.0330	0.100	mg/L	1		JLD1	08/31/22	0257	2310658	2
Chloride		14.9	0.670	2.00	mg/L	10		JLD1	08/31/22	1400	2310658	3
Sulfate		114	1.33	4.00	mg/L	10						
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1023	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2056	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0574	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		33.5	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00357	0.000300	0.00100	mg/L	1.00	1					
Iron		0.166	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		17.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000424	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.19	0.0800	0.300	mg/L	1.00	1					
Sodium		14.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0316	2310153	6
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		0.0458	0.00520	0.0150	mg/L	1.00	1	BAJ	09/08/22	0652	2310153	7
Manganese		0.302	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		248	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	8
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-45 Project: GPCC00101  
Sample ID: 591355009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		43.4	1.45	4.00	mg/L			HH2	09/07/22	1751	2310460	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		43.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-44	Project: GPCC00101
Sample ID: 591355010	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 11:31	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.06			SU			EOS1	08/25/22	1131	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.28	0.0670	0.200	mg/L		1	JLD1	08/31/22	0328	2310658	2
Fluoride		0.184	0.0330	0.100	mg/L		1					
Sulfate		47.0	1.33	4.00	mg/L		10	JLD1	08/31/22	1431	2310658	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1025	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2059	2310153	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0560	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		27.2	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0537	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00652	0.00300	0.0100	mg/L	1.00	1					
Magnesium		11.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.67	0.0800	0.300	mg/L	1.00	1					
Sodium		12.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0320	2310153	6
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		1.59	0.104	0.300	mg/L	1.00	20	BAJ	09/07/22	1922	2310153	7
Manganese		0.447	0.00100	0.00500	mg/L	1.00	1	BAJ	09/08/22	0653	2310153	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		167	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	9
<b>Titration and Ion Analysis</b>												



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID: PZ-44	Project: GPCC00101
Sample ID: 591355010	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		78.0	1.45	4.00	mg/L			HH2	09/07/22	1753	2310460	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		78.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51I	Project: GPCC00101
Sample ID: 591355011	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 12:34	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.49			SU			EOS1	08/24/22	1234	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.148	0.0330	0.100	mg/L	1		JLD1	08/31/22	0500	2310658	2
Sulfate		1240	13.3	40.0	mg/L	100		JLD1	08/31/22	1502	2310658	3
Chloride		9.64	0.134	0.400	mg/L	2		JLD1	08/31/22	1635	2310658	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1026	2310246	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/07/22	2102	2310153	6
Arsenic	J	0.00222	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0154	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00478	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0239	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0930	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0222	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000313	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.8	0.0800	0.300	mg/L	1.00	1					
Sodium		47.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	0323	2310153	7
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		0.459	0.0260	0.0750	mg/L	1.00	5	BAJ	09/07/22	1925	2310153	8
Calcium		197	0.400	1.00	mg/L	1.00	5					
Magnesium		134	0.0500	0.150	mg/L	1.00	5					
Manganese		47.4	1.00	5.00	mg/L	1.00	1000	BAJ	09/08/22	0659	2310153	9
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1740	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	10
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51I Project: GPCC00101  
Sample ID: 591355011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		22.0	1.45	4.00	mg/L			HH2	09/07/22	1355	2310459	11
Bicarbonate alkalinity (CaCO <sub>3</sub> )		22.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310152
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51D	Project: GPCC00101
Sample ID: 591355012	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 10:49	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.15			SU			EOS1	08/24/22	1049	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.318	0.0330	0.100	mg/L	1		JLD1	08/31/22	0531	2310658	2
Chloride		17.5	3.35	10.0	mg/L	50		JLD1	08/31/22	1705	2310658	3
Sulfate		377	6.65	20.0	mg/L	50						
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1031	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2055	2310155	5
Arsenic	J	0.00308	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0584	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000306	0.000300	0.00100	mg/L	1.00	1					
Iron		2.89	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00420	0.00300	0.0100	mg/L	1.00	1					
Magnesium		28.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00171	0.000200	0.00100	mg/L	1.00	1					
Potassium		9.82	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		39.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1050	2310155	6
Boron		0.0360	0.00520	0.0150	mg/L	1.00	1					
Calcium		118	0.800	2.00	mg/L	1.00	10	PRB	09/10/22	0719	2310155	7
Manganese		1.11	0.0100	0.0500	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		715	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	8
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51D Project: GPCC00101  
Sample ID: 591355012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		129	1.45	4.00	mg/L			HH2	09/07/22	1356	2310459	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		129	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-61I	Project: GPCC00101
Sample ID: 591355013	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 14:02	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.14			SU			EOS1	08/24/22	1402	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.103	0.0330	0.100	mg/L	1		JLD1	08/31/22	0602	2310658	2
Sulfate		1800	26.6	80.0	mg/L	200		JLD1	08/31/22	1736	2310658	3
Chloride		19.2	0.670	2.00	mg/L	10		JLD1	08/31/22	1807	2310658	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1033	2310246	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2121	2310155	6
Arsenic	J	0.00295	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0133	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000859	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.562	0.000300	0.00100	mg/L	1.00	1					
Iron		0.532	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.00113	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00913	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.34	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00510	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium		0.00198	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1100	2310155	7
Boron		0.277	0.0260	0.0750	mg/L	1.00	5	PRB	09/10/22	0734	2310155	8
Calcium		214	0.400	1.00	mg/L	1.00	5					
Magnesium		165	0.0500	0.150	mg/L	1.00	5					
Sodium		58.8	0.400	1.25	mg/L	1.00	5					
Manganese		108	1.00	5.00	mg/L	1.00	1000	PRB	09/10/22	0839	2310155	9
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2400	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	10
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-61I Project: GPCC00101  
Sample ID: 591355013 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		16.8	1.45	4.00	mg/L			HH2	09/07/22	1401	2310459	11
Bicarbonate alkalinity (CaCO <sub>3</sub> )		16.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51S	Project: GPCC00101
Sample ID: 591355014	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 16:09	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.12			SU			EOS1	08/24/22	1609	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.58	0.0670	0.200	mg/L		1	JLD1	08/31/22	0633	2310658	2
Fluoride		0.131	0.0330	0.100	mg/L		1					
Sulfate		0.872	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1035	2310246	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2124	2310155	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0223	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		7.94	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00193	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		8.23	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.37	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1105	2310155	5
Boron	J	0.00563	0.00520	0.0150	mg/L	1.00	1					
Manganese		0.781	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		90.0	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	6
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51S Project: GPCC00101  
Sample ID: 591355014 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		64.2	1.45	4.00	mg/L			HH2	09/07/22	1403	2310459	7
Bicarbonate alkalinity (CaCO <sub>3</sub> )		64.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-02	Project: GPCC00101
Sample ID: 591355015	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-AUG-22 12:00	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		4.20	0.0670	0.200	mg/L		1	HXC1	08/31/22	1152	2310688	1
Fluoride		0.121	0.0330	0.100	mg/L		1					
Sulfate		0.880	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1037	2310246	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2128	2310155	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0228	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		8.37	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00188	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		8.58	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.47	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.3	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1111	2310155	4
Boron	J	0.00617	0.00520	0.0150	mg/L	1.00	1					
Manganese		0.805	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		87.0	2.38	10.0	mg/L			CH6	08/30/22	1449	2310249	5
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		64.6	1.45	4.00	mg/L			HH2	09/07/22	1404	2310459	6
Bicarbonate alkalinity (CaCO3)		64.6	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-02 Project: GPCC00101  
Sample ID: 591355015 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-50D Project: GPCC00101  
Sample ID: 591355016 Client ID: GPCC001  
Matrix: WG  
Collect Date: 25-AUG-22 09:51  
Receive Date: 29-AUG-22  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.11			SU			EOS1	08/25/22	0951	2310143	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.106	0.0330	0.100	mg/L		1	HXC1	08/31/22	1221	2310688	2
Chloride		26.2	6.70	20.0	mg/L		100	HXC1	08/31/22	2149	2310688	3
Sulfate		1060	13.3	40.0	mg/L		100					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1038	2310246	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2131	2310155	5
Arsenic	J	0.00235	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0257	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.506	0.000300	0.00100	mg/L	1.00	1					
Iron		3.62	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0255	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00109	0.000200	0.00100	mg/L	1.00	1					
Potassium		13.5	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000269	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1113	2310155	6
Boron		0.278	0.0260	0.0750	mg/L	1.00	5	PRB	09/10/22	0741	2310155	7
Calcium		210	0.400	1.00	mg/L	1.00	5					
Magnesium		95.7	0.0500	0.150	mg/L	1.00	5					
Sodium		53.6	0.400	1.25	mg/L	1.00	5					
Manganese		36.1	0.100	0.500	mg/L	1.00	100	PRB	09/10/22	0745	2310155	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1750	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	9
Titration and Ion Analysis												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-50D Project: GPCC00101  
Sample ID: 591355016 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		57.0	1.45	4.00	mg/L			HH2	09/07/22	1754	2310460	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		57.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-06	Project: GPCC00101
Sample ID: 591355017	Client ID: GPCC001
Matrix: WQ	
Collect Date: 25-AUG-22 09:42	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	08/31/22	1251	2310688	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1040	2310246	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2135	2310155	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1117	2310155	4
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Manganese		0.00523	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	5
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	3.00	1.45	4.00	mg/L			HH2	09/07/22	1755	2310460	6
Bicarbonate alkalinity (CaCO3)	J	3.00	1.45	4.00	mg/L							



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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-06 Project: GPCC00101  
Sample ID: 591355017 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-62I	Project: GPCC00101
Sample ID: 591355018	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 11:21	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.50			SU			EOS1	08/25/22	1121	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		9.97	0.0670	0.200	mg/L		1	HXC1	08/31/22	1321	2310688	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		571	6.65	20.0	mg/L		50	HXC1	08/31/22	2219	2310688	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1042	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2139	2310155	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0259	0.000670	0.00400	mg/L	1.00	1					
Cadmium	J	0.000618	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.370	0.000300	0.00100	mg/L	1.00	1					
Iron		1.03	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00617	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000286	0.000200	0.00100	mg/L	1.00	1					
Potassium		9.67	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		25.6	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000219	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1119	2310155	6
Boron		0.473	0.0260	0.0750	mg/L	1.00	5	PRB	09/10/22	0755	2310155	7
Calcium		104	0.400	1.00	mg/L	1.00	5					
Magnesium		54.2	0.0500	0.150	mg/L	1.00	5					
Manganese		26.9	0.100	0.500	mg/L	1.00	100	PRB	09/10/22	0759	2310155	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		918	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	9
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-62I Project: GPCC00101  
Sample ID: 591355018 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		19.2	1.45	4.00	mg/L			HH2	09/07/22	1756	2310460	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		19.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-59I	Project: GPCC00101
Sample ID: 591355019	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 13:16	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		3.72			SU			EOS1	08/25/22	1316	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		1.80	0.0330	0.100	mg/L	1		HXC1	08/31/22	1351	2310688	2
Chloride		53.0	13.4	40.0	mg/L	200		HXC1	08/31/22	2348	2310688	3
Sulfate		2900	26.6	80.0	mg/L	200						
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1043	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2142	2310155	5
Arsenic		0.0221	0.00200	0.00500	mg/L	1.00	1					
Cadmium		0.00536	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00324	0.00300	0.0100	mg/L	1.00	1					
Lithium		0.164	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		16.4	0.0800	0.300	mg/L	1.00	1					
Selenium		0.113	0.00150	0.00500	mg/L	1.00	1					
Beryllium		0.100	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1121	2310155	6
Boron		0.0550	0.00520	0.0150	mg/L	1.00	1					
Barium	J	0.0121	0.00335	0.0200	mg/L	1.00	5	PRB	09/10/22	0803	2310155	7
Cobalt		1.46	0.00150	0.00500	mg/L	1.00	5					
Lead	U	ND	0.00250	0.0100	mg/L	1.00	5					
Magnesium		180	0.0500	0.150	mg/L	1.00	5					
Sodium		92.0	0.400	1.25	mg/L	1.00	5					
Thallium	U	ND	0.00300	0.0100	mg/L	1.00	5					
Calcium		267	8.00	20.0	mg/L	1.00	100	PRB	09/10/22	0806	2310155	8
Iron		448	3.30	10.0	mg/L	1.00	100					
Manganese		74.7	0.100	0.500	mg/L	1.00	100					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4370	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	9
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-59I	Project: GPCC00101
Sample ID: 591355019	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			HH2	09/07/22	1758	2310460	10
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-27I	Project: GPCC00101
Sample ID: 591355020	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 10:12	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.03			SU			EOS1	08/25/22	1012	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.65	0.0670	0.200	mg/L		1	HXC1	08/31/22	1421	2310688	2
Fluoride		0.234	0.0330	0.100	mg/L		1					
Sulfate		176	2.66	8.00	mg/L		20	HXC1	09/01/22	0018	2310688	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1045	2310246	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2153	2310155	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0161	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00790	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0361	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		5.73	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.03	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		14.6	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1125	2310155	6
Manganese		0.674	0.00100	0.00500	mg/L	1.00	1					
Boron		1.03	0.0520	0.150	mg/L	1.00	10	PRB	09/10/22	0810	2310155	7
Calcium		64.0	0.800	2.00	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		311	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	8
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-27I  
Sample ID: 591355020

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		33.4	1.45	4.00	mg/L			HH2	09/07/22	1801	2310460	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		33.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310245

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-03	Project: GPCC00101
Sample ID: 591355021	Client ID: GPCC001
Matrix: WQ	
Collect Date: 25-AUG-22 10:45	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	08/31/22	1451	2310688	1
Fluoride	J	0.0890	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1128	2310248	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2157	2310155	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	J	0.107	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1129	2310155	4
Boron	J	0.00648	0.00520	0.0150	mg/L	1.00	1					
Manganese		0.00513	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	5
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	3.20	1.45	4.00	mg/L			HH2	09/07/22	1802	2310460	6
Bicarbonate alkalinity (CaCO3)	J	3.20	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-03 Project: GPCC00101  
Sample ID: 591355021 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-63I	Project: GPCC00101
Sample ID: 591355022	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 12:20	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.65			SU			EOS1	08/25/22	1220	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.15	0.0670	0.200	mg/L		1	HXC1	08/31/22	1521	2310688	2
Fluoride		0.235	0.0330	0.100	mg/L		1					
Sulfate		234	2.66	8.00	mg/L		20	HXC1	09/01/22	0048	2310688	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1133	2310248	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2200	2310155	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0230	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		45.1	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0232	0.000300	0.00100	mg/L	1.00	1					
Iron		2.04	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00509	0.00300	0.0100	mg/L	1.00	1					
Magnesium		30.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000741	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.94	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1134	2310155	6
Boron		0.672	0.0520	0.150	mg/L	1.00	10	PRB	09/10/22	0813	2310155	7
Manganese		5.46	0.0100	0.0500	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		419	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	8
<b>Titration and Ion Analysis</b>												

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-63I Project: GPCC00101  
Sample ID: 591355022 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		32.8	1.45	4.00	mg/L			HH2	09/07/22	1803	2310460	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		32.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-57I	Project: GPCC00101
Sample ID: 591355023	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 10:55	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.91			SU			EOS1	08/25/22	1055	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		8.41	0.0670	0.200	mg/L		1	HXC1	08/31/22	1551	2310688	2
Fluoride		0.235	0.0330	0.100	mg/L		1					
Sulfate		294	5.32	16.0	mg/L		40	HXC1	09/01/22	0118	2310688	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1135	2310248	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2204	2310155	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0219	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0194	0.000300	0.00100	mg/L	1.00	1					
Iron		1.35	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0231	0.00300	0.0100	mg/L	1.00	1					
Magnesium		31.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.52	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		19.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	J	0.000393	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1136	2310155	6
Boron		0.496	0.0260	0.0750	mg/L	1.00	5	PRB	09/10/22	0817	2310155	7
Calcium		53.0	0.400	1.00	mg/L	1.00	5					
Manganese		14.2	0.0200	0.100	mg/L	1.00	20	PRB	09/10/22	0821	2310155	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		554	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	9
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-57I Project: GPCC00101  
Sample ID: 591355023 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		27.0	1.45	4.00	mg/L			HH2	09/07/22	1804	2310460	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		27.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-32S	Project: GPCC00101
Sample ID: 591355024	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 12:35	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.06			SU			EOS1	08/25/22	1235	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.96	0.0670	0.200	mg/L		1	HXC1	08/31/22	1620	2310688	2
Fluoride		0.138	0.0330	0.100	mg/L		1					
Sulfate		254	2.66	8.00	mg/L		20	HXC1	09/01/22	0148	2310688	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1137	2310248	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2208	2310155	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0231	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		48.5	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00430	0.00300	0.0100	mg/L	1.00	1					
Magnesium		30.9	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.25	0.0800	0.300	mg/L	1.00	1					
Selenium		0.218	0.00150	0.00500	mg/L	1.00	1					
Sodium		26.6	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1138	2310155	6
Manganese		0.0107	0.00100	0.00500	mg/L	1.00	1					
Boron		1.07	0.0520	0.150	mg/L	1.00	10	PRB	09/10/22	0824	2310155	7
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		437	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	8
<b>Titration and Ion Analysis</b>												



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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-32S  
Sample ID: 591355024

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		30.2	1.45	4.00	mg/L			HH2	09/07/22	1805	2310460	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		30.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-07 Project: GPCC00101  
Sample ID: 591355025 Client ID: GPCC001  
Matrix: WQ  
Collect Date: 25-AUG-22 12:45  
Receive Date: 29-AUG-22  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	08/31/22	1750	2310688	1
Fluoride	J	0.0758	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1139	2310248	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2211	2310155	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1140	2310155	4
Boron		0.0159	0.00520	0.0150	mg/L	1.00	1					
Manganese	J	0.00387	0.00100	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	5
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3	J	2.80	1.45	4.00	mg/L			HH2	09/07/22	1806	2310460	6
Bicarbonate alkalinity (CaCO3)	J	2.80	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-07 Project: GPCC00101  
Sample ID: 591355025 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-52I	Project: GPCC00101
Sample ID: 591355026	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-AUG-22 12:55	
Receive Date: 29-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.21			SU			EOS1	08/25/22	1255	2310143	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.27	0.0670	0.200	mg/L		1	HXC1	08/31/22	1820	2310688	2
Fluoride		0.157	0.0330	0.100	mg/L		1					
Sulfate		142	1.33	4.00	mg/L		10	HXC1	09/01/22	0218	2310688	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/31/22	1140	2310248	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/09/22	2215	2310155	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0179	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		38.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		1.16	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0162	0.00300	0.0100	mg/L	1.00	1					
Magnesium		18.3	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000471	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.96	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		19.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/10/22	1142	2310155	6
Manganese		0.601	0.00100	0.00500	mg/L	1.00	1					
Boron		1.56	0.104	0.300	mg/L	1.00	20	PRB	09/10/22	0828	2310155	7
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		296	2.38	10.0	mg/L			CH6	08/31/22	1439	2310760	8
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-52I  
Sample ID: 591355026

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		57.2	1.45	4.00	mg/L			HH2	09/07/22	1807	2310460	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )		57.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/30/22	0900	2310154
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/30/22	1252	2310247

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-12I	Project: GPCC00101
Sample ID: 590855001	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 11:43	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.39			SU			EOS1	08/23/22	1143	2308295	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		2.50	0.0670	0.200	mg/L		1	JLD1	08/25/22	1857	2308691	2
Fluoride		0.151	0.0330	0.100	mg/L		1					
Sulfate		1.84	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1054	2308549	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0024	2308385	4
Barium		0.0602	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00451	0.00300	0.0100	mg/L	1.00	1					
Potassium		3.37	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		10.3	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony		0.0241	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1455	2308385	5
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1151	2308385	6
Boron	J	0.00653	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		15.8	0.0800	0.200	mg/L	1.00	1					
Magnesium		4.00	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.00506	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000413	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		104	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	7
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-12I Project: GPCC00101  
Sample ID: 590855001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		65.8	1.45	4.00	mg/L			HH2	09/04/22	1349	2309339	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		65.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1146	2308547

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-01	Project: GPCC00101
Sample ID: 590855002	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-22 13:15	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	J	0.186	0.0670	0.200	mg/L		1	JLD1	08/25/22	1926	2308691	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1056	2308549	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0028	2308385	3
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		0.565	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1457	2308385	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1134	2308385	5
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		0.250	0.0800	0.200	mg/L	1.00	1					
Magnesium	J	0.0137	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	6
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		31.0	1.45	4.00	mg/L			HH2	09/04/22	1350	2309339	7
Bicarbonate alkalinity (CaCO3)		31.0	1.45	4.00	mg/L							

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-01 Project: GPCC00101  
Sample ID: 590855002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1146	2308547

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-12S	Project: GPCC00101
Sample ID: 590855003	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 13:38	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.90			SU			EOS1	08/23/22	1338	2308295	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.46	0.0670	0.200	mg/L		1	JLD1	08/25/22	1956	2308691	2
Fluoride		0.129	0.0330	0.100	mg/L		1					
Sulfate		0.636	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1058	2308549	3
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0039	2308385	4
Barium		0.0607	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Potassium		2.55	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		5.41	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1459	2308385	5
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1137	2308385	6
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		6.09	0.0800	0.200	mg/L	1.00	1					
Magnesium		3.53	0.0100	0.0300	mg/L	1.00	1					
Manganese	J	0.00103	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		55.0	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	7
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-12S  
Sample ID: 590855003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		32.0	1.45	4.00	mg/L			HH2	09/04/22	1351	2309339	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		32.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1146	2308547

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-25I	Project: GPCC00101
Sample ID: 590855004	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 15:41	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.11			SU			EOS1	08/23/22	1541	2308295	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.38	0.0670	0.200	mg/L		1	JLD1	08/25/22	2026	2308691	2
Fluoride		0.186	0.0330	0.100	mg/L		1					
Sulfate		158	2.66	8.00	mg/L		20	JLD1	08/26/22	0255	2308691	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1103	2308549	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0042	2308385	5
Barium		0.0259	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00342	0.000300	0.00100	mg/L	1.00	1					
Iron		0.193	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Potassium		4.20	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1504	2308385	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1233	2308385	7
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Magnesium		21.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00105	0.000200	0.00100	mg/L	1.00	1					
Boron		1.38	0.104	0.300	mg/L	1.00	20	BAJ	09/03/22	1207	2308385	8
Calcium		51.5	1.60	4.00	mg/L	1.00	20					
Manganese		1.68	0.0200	0.100	mg/L	1.00	20					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		315	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	9
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-25I Project: GPCC00101  
Sample ID: 590855004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		75.6	1.45	4.00	mg/L			HH2	09/04/22	1352	2309339	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		75.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1146	2308547

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-23S	Project: GPCC00101
Sample ID: 590845001	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 13:45	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.66			SU			EOS1	08/23/22	1345	2308297	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.16	0.0670	0.200	mg/L		1	JLD1	08/25/22	1627	2308691	2
Fluoride		0.157	0.0330	0.100	mg/L		1					
Sulfate		24.4	0.266	0.800	mg/L		2	JLD1	08/26/22	0155	2308691	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1148	2308555	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0014	2308385	5
Barium		0.0573	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000308	0.000300	0.00100	mg/L	1.00	1					
Iron		0.114	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00792	0.00300	0.0100	mg/L	1.00	1					
Potassium		2.52	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		9.81	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1450	2308385	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1119	2308385	7
Boron		0.0498	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		8.09	0.0800	0.200	mg/L	1.00	1					
Magnesium		4.69	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0360	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		103	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	8
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-23S	Project: GPCC00101
Sample ID: 590845001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		30.4	1.45	4.00	mg/L			HH2	09/04/22	1346	2309339	9
Bicarbonate alkalinity (CaCO3)		30.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 2320B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-47	Project: GPCC00101
Sample ID: 590845002	Client ID: GPCC001
Matrix: WG	
Collect Date: 23-AUG-22 15:20	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.61			SU			EOS1	08/23/22	1520	2308297	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.49	0.0670	0.200	mg/L		1	JLD1	08/25/22	1757	2308691	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1410	26.6	80.0	mg/L		200	JLD1	08/26/22	0225	2308691	3
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1150	2308555	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	J	0.00228	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0017	2308385	5
Barium		0.0285	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.101	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0474	0.00300	0.0100	mg/L	1.00	1					
Potassium		11.8	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		42.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1452	2308385	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1230	2308385	7
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Manganese		0.0103	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000296	0.000200	0.00100	mg/L	1.00	1					
Boron		0.547	0.0520	0.150	mg/L	1.00	10	BAJ	09/03/22	1204	2308385	8
Calcium		323	0.800	2.00	mg/L	1.00	10					
Magnesium		125	0.100	0.300	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2060	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	9
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-47 Project: GPCC00101  
Sample ID: 590845002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		28.4	1.45	4.00	mg/L			HH2	09/04/22	1347	2309339	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )		28.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-05	Project: GPCC00101
Sample ID: 590845003	Client ID: GPCC001
Matrix: WQ	
Collect Date: 23-AUG-22 14:55	
Receive Date: 24-AUG-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	J	0.188	0.0670	0.200	mg/L		1	JLD1	08/25/22	1827	2308691	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/22	1152	2308555	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/03/22	0021	2308385	3
Barium	J	0.000796	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		0.703	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/03/22	1453	2308385	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/03/22	1122	2308385	5
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		0.313	0.0800	0.200	mg/L	1.00	1					
Magnesium	J	0.0152	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	08/26/22	1530	2309029	6
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		20.6	1.45	4.00	mg/L			HH2	09/04/22	1348	2309339	7
Bicarbonate alkalinity (CaCO3)		20.6	1.45	4.00	mg/L							

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## Certificate of Analysis

Report Date: October 3, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-05 Project: GPCC00101  
Sample ID: 590845003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	08/26/22	0900	2308382
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	08/25/22	1147	2308553

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## QC Summary

Report Date: October 3, 2022

Page 1 of 20

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 591355

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2310523										
QC1205179260	591351001	DUP									
Chloride		5.00		4.97	mg/L	0.702		(0%-20%)	HXC1	08/30/22	20:15
Fluoride		0.274		0.272	mg/L	0.88 ^		(+/-0.100)			
Sulfate		157		158	mg/L	0.766		(0%-20%)		08/30/22	21:44
QC1205179259	LCS										
Chloride	5.00			4.72	mg/L		94.4	(90%-110%)		08/30/22	19:45
Fluoride	2.50			2.51	mg/L		100	(90%-110%)			
Sulfate	10.0			9.64	mg/L		96.4	(90%-110%)			
QC1205179258	MB										
Chloride			U	ND	mg/L					08/30/22	19:15
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205179261	591351001	PS									
Chloride	5.00	5.00		10.4	mg/L		107	(90%-110%)		08/30/22	20:45
Fluoride	2.50	0.274		2.66	mg/L		95.4	(90%-110%)			
Sulfate	10.0	7.86		18.2	mg/L		103	(90%-110%)		08/30/22	22:14

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## QC Summary

Workorder: 591355

Page 2 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2310658										
QC1205179525	591355005	DUP									
Chloride		5.84		5.85	mg/L	0.157		(0%-20%)	JLD1	08/31/22	00:23
Fluoride		0.103		0.101	mg/L	2.06 ^		(+/-0.100)			
Sulfate		298		305	mg/L	2.44		(0%-20%)		08/31/22	19:09
QC1205179524	LCS										
Chloride	5.00			5.00	mg/L		100	(90%-110%)		08/30/22	23:21
Fluoride	2.50			2.41	mg/L		96.6	(90%-110%)			
Sulfate	10.0			10.4	mg/L		104	(90%-110%)			
QC1205179523	MB										
Chloride			U	ND	mg/L					08/30/22	22:50
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205179526	591355005	PS									
Chloride	5.00	5.84		12.4	mg/L		131 *	(90%-110%)		08/31/22	00:53
Fluoride	2.50	0.103		2.75	mg/L		106	(90%-110%)			
Sulfate	10.0	2.98		12.9	mg/L		99.2	(90%-110%)		08/31/22	19:40
Batch	2310688										
QC1205179579	591355015	DUP									
Chloride		4.20		4.21	mg/L	0.252		(0%-20%)	HXC1	08/31/22	19:49
Fluoride		0.121		0.116	mg/L	3.46 ^		(+/-0.100)			

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## QC Summary

Workorder: 591355

Page 3 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2310688										
Sulfate		0.880		0.815	mg/L	7.69 ^		(+/-0.400)	HXC1	08/31/22	19:49
QC1205179581	591355026	DUP									
Chloride		6.27		6.28	mg/L	0.231		(0%-20%)		08/31/22	20:49
Fluoride		0.157		0.155	mg/L	1.41 ^		(+/-0.100)			
Sulfate		142		142	mg/L	0.0739		(0%-20%)		09/01/22	02:48
QC1205179578	LCS										
Chloride	5.00			4.71	mg/L		94.3	(90%-110%)		08/31/22	19:20
Fluoride	2.50			2.53	mg/L		101	(90%-110%)			
Sulfate	10.0			9.76	mg/L		97.6	(90%-110%)			
QC1205179577	MB										
Chloride			U	ND	mg/L					08/31/22	18:50
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205179580	591355015	PS									
Chloride	5.00	4.20		9.73	mg/L		111 *	(90%-110%)		08/31/22	20:19
Fluoride	2.50	0.121		2.64	mg/L		101	(90%-110%)			
Sulfate	10.0	0.880		10.7	mg/L		97.8	(90%-110%)			
QC1205179582	591355026	PS									
Chloride	5.00	6.27		12.1	mg/L		117 *	(90%-110%)		08/31/22	21:19

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## QC Summary

Workorder: 591355

Page 4 of 20

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2310688										
Fluoride	2.50	0.157		2.69	mg/L		101	(90%-110%)	HXC1	08/31/22	21:19
Sulfate	10.0	14.2		24.9	mg/L		107	(90%-110%)		09/01/22	03:17
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
QC1205178580	LCS										
Antimony	0.0500			0.0540	mg/L		108	(80%-120%)	BAJ	09/07/22	18:17
Arsenic	0.0500			0.0568	mg/L		114	(80%-120%)			
Barium	0.0500			0.0523	mg/L		105	(80%-120%)			
Beryllium	0.0500			0.0563	mg/L		113	(80%-120%)		09/07/22	01:53
Boron	0.100			0.108	mg/L		108	(80%-120%)		09/07/22	18:17
Cadmium	0.0500			0.0568	mg/L		114	(80%-120%)			
Calcium	2.00			2.13	mg/L		106	(80%-120%)			
Chromium	0.0500			0.0512	mg/L		102	(80%-120%)			
Cobalt	0.0500			0.0513	mg/L		103	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0528	mg/L		106	(80%-120%)			
Lithium	0.0500			0.0505	mg/L		101	(80%-120%)			



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## QC Summary

Workorder: 591355

Page 5 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
Magnesium	2.00			2.14	mg/L		107	(80%-120%)	BAJ	09/07/22	18:17
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)			
Molybdenum	0.0500			0.0534	mg/L		107	(80%-120%)			
Potassium	2.00			2.10	mg/L		105	(80%-120%)			
Selenium	0.0500			0.0499	mg/L		99.8	(80%-120%)		09/07/22	01:53
Sodium	2.00			2.08	mg/L		104	(80%-120%)		09/07/22	18:17
Thallium	0.0500			0.0505	mg/L		101	(80%-120%)			
QC1205178579	MB										
Antimony			U	ND	mg/L					09/07/22	18:14
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/07/22	01:50
Boron			U	ND	mg/L					09/07/22	18:14
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						

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## QC Summary

Workorder: 591355

Page 6 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
Cobalt			U	ND	mg/L				BAJ	09/07/22	18:14
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L					09/07/22	01:50
Sodium			U	ND	mg/L					09/07/22	18:14
Thallium			U	ND	mg/L						
QC1205178581 591351001 MS											
Antimony	0.0500	U	ND	0.0519	mg/L		103	(75%-125%)		09/07/22	18:23
Arsenic	0.0500	U	ND	0.0532	mg/L		104	(75%-125%)			
Barium	0.0500		0.0512	0.104	mg/L		106	(75%-125%)			
Beryllium	0.0500	U	ND	0.0560	mg/L		112	(75%-125%)		09/07/22	02:00

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## QC Summary

Workorder: 591355

Page 7 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
Boron	0.100	0.0273		0.134	mg/L		107	(75%-125%)	BAJ	09/07/22	18:23
Cadmium	0.0500 U	ND		0.0522	mg/L		104	(75%-125%)			
Calcium	2.00	43.6		47.5	mg/L		N/A	(75%-125%)			
Chromium	0.0500	0.0127		0.0655	mg/L		106	(75%-125%)			
Cobalt	0.0500 U	ND		0.0502	mg/L		100	(75%-125%)			
Iron	2.00 U	ND		2.08	mg/L		103	(75%-125%)			
Lead	0.0500 U	ND		0.0511	mg/L		102	(75%-125%)			
Lithium	0.0500 U	ND		0.0528	mg/L		103	(75%-125%)			
Magnesium	2.00	25.7		28.9	mg/L		N/A	(75%-125%)			
Manganese	0.0500 U	ND		0.0507	mg/L		100	(75%-125%)			
Molybdenum	0.0500 U	ND		0.0559	mg/L		112	(75%-125%)			
Potassium	2.00	1.29		3.38	mg/L		105	(75%-125%)			
Selenium	0.0500 J	0.00208		0.0515	mg/L		98.9	(75%-125%)		09/07/22	02:00
Sodium	2.00	24.6		27.8	mg/L		N/A	(75%-125%)		09/07/22	18:23
Thallium	0.0500 U	ND		0.0502	mg/L		100	(75%-125%)			

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## QC Summary

Workorder: 591355

Page 8 of 20

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
	QC1205178582 591351001 MSD										
Antimony	0.0500	U	ND	0.0533	mg/L	2.66	106	(0%-20%)	BAJ	09/07/22	18:26
Arsenic	0.0500	U	ND	0.0555	mg/L	4.3	109	(0%-20%)			
Barium	0.0500		0.0512	0.105	mg/L	0.178	107	(0%-20%)			
Beryllium	0.0500	U	ND	0.0546	mg/L	2.52	109	(0%-20%)		09/07/22	02:04
Boron	0.100		0.0273	0.134	mg/L	0.174	107	(0%-20%)		09/07/22	18:26
Cadmium	0.0500	U	ND	0.0544	mg/L	4.28	109	(0%-20%)			
Calcium	2.00		43.6	45.7	mg/L	3.85	N/A	(0%-20%)			
Chromium	0.0500		0.0127	0.0636	mg/L	2.93	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0494	mg/L	1.65	98.7	(0%-20%)			
Iron	2.00	U	ND	2.06	mg/L	1.04	102	(0%-20%)			
Lead	0.0500	U	ND	0.0512	mg/L	0.258	102	(0%-20%)			
Lithium	0.0500	U	ND	0.0515	mg/L	2.49	101	(0%-20%)			
Magnesium	2.00		25.7	27.9	mg/L	3.37	N/A	(0%-20%)			
Manganese	0.0500	U	ND	0.0506	mg/L	0.0711	100	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0558	mg/L	0.308	111	(0%-20%)			

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## QC Summary

Workorder: 591355

Page 9 of 20

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
Potassium	2.00	1.29		3.38	mg/L	0.0861	105	(0%-20%)	BAJ	09/07/22	18:26
Selenium	0.0500	J	0.00208	0.0521	mg/L	1.07	100	(0%-20%)		09/07/22	02:04
Sodium	2.00	24.6		27.1	mg/L	2.51	N/A	(0%-20%)		09/07/22	18:26
Thallium	0.0500	U	ND	0.0503	mg/L	0.279	100	(0%-20%)			
QC1205178583 591351001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/07/22	18:54
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			51.2	9.71	ug/L	5.13		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/07/22	02:11
Boron			27.3	J	5.37	ug/L	1.81	(0%-20%)		09/07/22	18:54
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			43600	8480	ug/L	2.85		(0%-20%)			
Chromium			12.7	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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## QC Summary

Workorder: 591355

Page 10 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310153										
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/07/22	18:54
Magnesium		25700		4930	ug/L	4.31		(0%-20%)			
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1290	J	250	ug/L	2.87		(0%-20%)			
Selenium	J	2.08	U	ND	ug/L	N/A		(0%-20%)		09/07/22	02:11
Sodium		24600		4790	ug/L	2.6		(0%-20%)		09/07/22	18:54
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Batch	2310155										
QC1205178585	LCS										
Antimony	0.0500			0.0467	mg/L		93.4	(80%-120%)	PRB	09/09/22	20:52
Arsenic	0.0500			0.0462	mg/L		92.3	(80%-120%)			
Barium	0.0500			0.0489	mg/L		97.8	(80%-120%)			
Beryllium	0.0500			0.0518	mg/L		104	(80%-120%)		09/10/22	10:48
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0482	mg/L		96.5	(80%-120%)		09/09/22	20:52
Calcium	2.00			2.00	mg/L		99.9	(80%-120%)			

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## QC Summary

Workorder: 591355

Page 11 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310155										
Chromium	0.0500			0.0474	mg/L		94.7	(80%-120%)	PRB	09/09/22	20:52
Cobalt	0.0500			0.0462	mg/L		92.4	(80%-120%)			
Iron	2.00			1.84	mg/L		92.2	(80%-120%)			
Lead	0.0500			0.0485	mg/L		97	(80%-120%)			
Lithium	0.0500			0.0478	mg/L		95.7	(80%-120%)			
Magnesium	2.00			1.94	mg/L		97	(80%-120%)			
Manganese	0.0500			0.0475	mg/L		95	(80%-120%)		09/10/22	10:48
Molybdenum	0.0500			0.0480	mg/L		95.9	(80%-120%)		09/09/22	20:52
Potassium	2.00			1.90	mg/L		95.2	(80%-120%)			
Selenium	0.0500			0.0473	mg/L		94.6	(80%-120%)			
Sodium	2.00			1.89	mg/L		94.4	(80%-120%)			
Thallium	0.0500			0.0469	mg/L		93.8	(80%-120%)			
QC1205178584	MB										
Antimony			U	ND	mg/L					09/09/22	20:48
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						

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## QC Summary

Workorder: 591355

Page 12 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310155										
Beryllium			U	ND	mg/L				PRB	09/10/22	10:46
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					09/09/22	20:48
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					09/10/22	10:46
Molybdenum			U	ND	mg/L					09/09/22	20:48
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						



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## QC Summary

Workorder: 591355

Page 13 of 20

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310155										
Thallium			U	ND	mg/L				PRB	09/09/22	20:48
QC1205178586	591355012	MS									
Antimony	0.0500	U	ND	0.0503	mg/L		100	(75%-125%)		09/09/22	20:59
Arsenic	0.0500	J	0.00308	0.0527	mg/L		99.2	(75%-125%)			
Barium	0.0500		0.0584	0.109	mg/L		101	(75%-125%)			
Beryllium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)		09/10/22	10:52
Boron	0.100		0.0360	0.139	mg/L		103	(75%-125%)			
Cadmium	0.0500	U	ND	0.0508	mg/L		102	(75%-125%)		09/09/22	20:59
Calcium	2.00		118	122	mg/L		N/A	(75%-125%)		09/10/22	07:23
Chromium	0.0500	U	ND	0.0486	mg/L		95.7	(75%-125%)		09/09/22	20:59
Cobalt	0.0500	J	0.000306	0.0476	mg/L		94.5	(75%-125%)			
Iron	2.00		2.89	4.84	mg/L		97.5	(75%-125%)			
Lead	0.0500	U	ND	0.0477	mg/L		95.2	(75%-125%)			
Lithium	0.0500	J	0.00420	0.0536	mg/L		98.8	(75%-125%)			
Magnesium	2.00		28.1	29.9	mg/L		N/A	(75%-125%)			
Manganese	0.0500		1.11	1.23	mg/L		N/A	(75%-125%)		09/10/22	07:23

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## QC Summary

Workorder: 591355

Page 14 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310155										
Molybdenum	0.0500	0.00171		0.0548	mg/L		106	(75%-125%)	PRB	09/09/22	20:59
Potassium	2.00	9.82		11.9	mg/L		N/A	(75%-125%)			
Selenium	0.0500	U	ND	0.0488	mg/L		96.9	(75%-125%)			
Sodium	2.00	39.8		41.6	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0475	mg/L		94.8	(75%-125%)			
QC1205178587 591355012 MSD											
Antimony	0.0500	U	ND	0.0497	mg/L	1.19	99	(0%-20%)		09/09/22	21:03
Arsenic	0.0500	J	0.00308	0.0521	mg/L	1.05	98.1	(0%-20%)			
Barium	0.0500	0.0584		0.110	mg/L	1.1	104	(0%-20%)			
Beryllium	0.0500	U	ND	0.0526	mg/L	0.769	105	(0%-20%)		09/10/22	10:54
Boron	0.100	0.0360		0.142	mg/L	2.3	106	(0%-20%)			
Cadmium	0.0500	U	ND	0.0502	mg/L	1.27	100	(0%-20%)		09/09/22	21:03
Calcium	2.00	118		122	mg/L	0.00835	N/A	(0%-20%)		09/10/22	07:27
Chromium	0.0500	U	ND	0.0485	mg/L	0.0721	95.6	(0%-20%)		09/09/22	21:03
Cobalt	0.0500	J	0.000306	0.0486	mg/L	2.08	96.5	(0%-20%)			
Iron	2.00	2.89		4.88	mg/L	0.836	99.5	(0%-20%)			

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## QC Summary

Workorder: 591355

Page 15 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310155										
Lead	0.0500	U	ND	0.0486	mg/L	1.79	97	(0%-20%)	PRB	09/09/22	21:03
Lithium	0.0500	J	0.00420	0.0539	mg/L	0.593	99.5	(0%-20%)			
Magnesium	2.00		28.1	29.3	mg/L	2.16	N/A	(0%-20%)			
Manganese	0.0500		1.11	1.20	mg/L	2.24	N/A	(0%-20%)		09/10/22	07:27
Molybdenum	0.0500		0.00171	0.0574	mg/L	4.63	111	(0%-20%)		09/09/22	21:03
Potassium	2.00		9.82	11.8	mg/L	0.219	N/A	(0%-20%)			
Selenium	0.0500	U	ND	0.0480	mg/L	1.7	95.3	(0%-20%)			
Sodium	2.00		39.8	41.0	mg/L	1.38	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0483	mg/L	1.86	96.6	(0%-20%)			
QC1205178588 591355012 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/09/22	21:10
Arsenic		J	3.08	U	ND	ug/L	N/A	(0%-20%)			
Barium			58.4		11.4	ug/L	2.6	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/10/22	10:58
Boron			36.0	J	8.09	ug/L	12.5	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/09/22	21:10

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## QC Summary

Workorder: 591355

Page 16 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2310155										
Calcium		11800		2240	ug/L	4.96		(0%-20%)	PRB	09/10/22	07:30
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/09/22	21:10
Cobalt	J	0.306	U	ND	ug/L	N/A		(0%-20%)			
Iron		2890		586	ug/L	1.52		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	J	4.20	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		28100		5720	ug/L	1.69		(0%-20%)			
Manganese		111		19.8	ug/L	10.8		(0%-20%)		09/10/22	07:30
Molybdenum		1.71	J	0.431	ug/L	26.1		(0%-20%)		09/09/22	21:10
Potassium		9820		1880	ug/L	4.48		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		39800		8040	ug/L	.915		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2310246										
QC1205178778	591355002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/31/22	10:03

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## QC Summary

Workorder: 591355

Page 17 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch 2310246											
QC1205178777	LCS										
Mercury	0.00200			0.00196	mg/L		98.2	(80%-120%)	JP2	08/31/22	09:58
QC1205178776	MB										
Mercury			U	ND	mg/L					08/31/22	09:56
QC1205178779	591355002	MS									
Mercury	0.00200	U	ND	0.00116	mg/L		57.7*	(75%-125%)		08/31/22	10:04
QC1205178781	591355002	PS									
Mercury	2.00	U	ND	1.10	ug/L		54.6*	(80%-120%)		08/31/22	10:11
QC1205178780	591355002	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/31/22	10:06
Batch 2310248											
QC1205178784	590142001	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	08/31/22	10:55
QC1205178783	LCS										
Mercury	0.00200			0.00200	mg/L		99.9	(80%-120%)		08/31/22	10:52
QC1205178782	MB										
Mercury			U	ND	mg/L					08/31/22	10:47
QC1205178785	590142001	MS									
Mercury	0.00200	U	ND	0.00195	mg/L		96.6	(75%-125%)		08/31/22	10:57
QC1205178786	590142001	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/31/22	10:59

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## QC Summary

Workorder: **591355**

Page 18 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch 2310249											
QC1205178791 591355007 DUP											
Total Dissolved Solids		1990		2040	mg/L	2.54		(0%-5%)	CH6	08/30/22	14:49
QC1205178789 LCS											
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		08/30/22	14:49
QC1205178788 MB											
Total Dissolved Solids			U	ND	mg/L					08/30/22	14:49
Batch 2310760											
QC1205179716 591355024 DUP											
Total Dissolved Solids		437		437	mg/L	0		(0%-5%)	CH6	08/31/22	14:39
QC1205179715 LCS											
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/31/22	14:39
QC1205179714 MB											
Total Dissolved Solids			U	ND	mg/L					08/31/22	14:39
<b>Titration and Ion Analysis</b>											
Batch 2310459											
QC1205179134 591355012 DUP											
Alkalinity, Total as CaCO3		129		128	mg/L	0.311		(0%-20%)	HH2	09/07/22	13:57
Bicarbonate alkalinity (CaCO3)		129		128	mg/L	0.311		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205179131 LCS											
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		09/07/22	13:17
QC1205179135 591355012 MS											
Alkalinity, Total as CaCO3	100	129		228	mg/L		99	(80%-120%)		09/07/22	14:00

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## QC Summary

Workorder: **591355**

Page 19 of 20

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2310460										
QC1205179137	591355008	DUP									
Alkalinity, Total as CaCO3		42.4		42.0	mg/L	0.948		(0%-20%)	HH2	09/07/22	17:47
Bicarbonate alkalinity (CaCO3)		42.4		42.0	mg/L	0.948		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205179139	591355026	DUP									
Alkalinity, Total as CaCO3		57.2		57.6	mg/L	0.697		(0%-20%)		09/07/22	18:09
Bicarbonate alkalinity (CaCO3)		57.2		57.6	mg/L	0.697		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205179136	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		09/07/22	17:45
QC1205179138	591355008	MS									
Alkalinity, Total as CaCO3	100	42.4		146	mg/L		104	(80%-120%)		09/07/22	17:49
QC1205179140	591355026	MS									
Alkalinity, Total as CaCO3	100	57.2		156	mg/L		99	(80%-120%)		09/07/22	18:10

**Notes:**

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation

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## QC Summary

Workorder: 591355

Page 20 of 20

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J											
N											
N/A											
N1											
ND											
NJ											
Q											
R											
R											
U											
X											
Y											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



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## QC Summary

Report Date: October 3, 2022

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 590855

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2308691										
QC1205175345	590838001	DUP									
Chloride		2.18		2.13	mg/L	2.51		(0%-20%)	JLD1	08/25/22	13:28
Fluoride	U	ND	U	ND	mg/L	N/A					
Sulfate		0.452		0.418	mg/L	7.86 ^		(+/-0.400)			
QC1205175347	590857001	DUP									
Chloride		30.3		30.4	mg/L	0.158 ^		(+/-8.00)		08/26/22	03:54
Fluoride		0.187		0.160	mg/L	15.7 ^		(+/-0.100)		08/25/22	21:26
Sulfate		385		387	mg/L	0.559		(0%-20%)		08/26/22	03:54
QC1205175344	LCS										
Chloride	5.00			4.72	mg/L		94.3	(90%-110%)		08/25/22	12:28
Fluoride	2.50			2.30	mg/L		91.9	(90%-110%)			
Sulfate	10.0			9.76	mg/L		97.6	(90%-110%)			
QC1205175343	MB										
Chloride			U	ND	mg/L					08/25/22	11:59
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205175346	590838001	PS									
Chloride	5.00	2.18		7.68	mg/L		110	(90%-110%)		08/25/22	13:58

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## QC Summary

Workorder: **590855**

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2308691										
Fluoride	2.50	U	ND	2.65	mg/L		106	(90%-110%)	JLD1	08/25/22	13:58
Sulfate	10.0		0.452	11.6	mg/L		111 *	(90%-110%)			
QC1205175348 590857001 PS											
Chloride	5.00		0.759	5.74	mg/L		99.7	(90%-110%)		08/26/22	04:24
Fluoride	2.50		0.187	2.68	mg/L		99.9	(90%-110%)		08/25/22	21:56
Sulfate	10.0		9.63	20.5	mg/L		109	(90%-110%)		08/26/22	04:24
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
QC1205174766 LCS											
Antimony	0.0500			0.0497	mg/L		99.4	(80%-120%)	BAJ	09/03/22	14:29
Arsenic	0.0500			0.0512	mg/L		102	(80%-120%)		09/02/22	23:30
Barium	0.0500			0.0504	mg/L		101	(80%-120%)			
Beryllium	0.0500			0.0588	mg/L		118	(80%-120%)		09/03/22	10:40
Boron	0.100			0.114	mg/L		114	(80%-120%)			
Cadmium	0.0500			0.0519	mg/L		104	(80%-120%)			
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0510	mg/L		102	(80%-120%)		09/02/22	23:30
Cobalt	0.0500			0.0497	mg/L		99.4	(80%-120%)			

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## QC Summary

Workorder: **590855**

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Iron	2.00			2.10	mg/L		105	(80%-120%)	BAJ	09/02/22	23:30
Lead	0.0500			0.0527	mg/L		105	(80%-120%)			
Lithium	0.0500			0.0518	mg/L		104	(80%-120%)			
Magnesium	2.00			2.17	mg/L		109	(80%-120%)		09/03/22	10:40
Manganese	0.0500			0.0512	mg/L		102	(80%-120%)			
Molybdenum	0.0500			0.0521	mg/L		104	(80%-120%)			
Potassium	2.00			1.99	mg/L		99.7	(80%-120%)		09/02/22	23:30
Selenium	0.0500			0.0494	mg/L		98.9	(80%-120%)			
Sodium	2.00			2.22	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0460	mg/L		92.1	(80%-120%)			
QC1205174765	MB										
Antimony			U	ND	mg/L					09/03/22	14:27
Arsenic			U	ND	mg/L					09/02/22	23:27
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/03/22	10:37
Boron			U	ND	mg/L						

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## QC Summary

Workorder: **590855**

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Cadmium			U	ND	mg/L				BAJ	09/03/22	10:37
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L					09/02/22	23:27
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					09/03/22	10:37
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					09/02/22	23:27
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205174767	590838001	MS									
Antimony	0.0500	U	ND	0.0501	mg/L		99.4	(75%-125%)		09/03/22	14:32

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## QC Summary

Workorder: 590855

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Arsenic	0.0500	U	ND	0.0500	mg/L		98	(75%-125%)	BAJ	09/02/22	23:37
Barium	0.0500		0.0120	0.0615	mg/L		99.1	(75%-125%)			
Beryllium	0.0500	U	ND	0.0613	mg/L		123	(75%-125%)		09/03/22	10:46
Boron	0.100	J	0.00532	0.120	mg/L		115	(75%-125%)			
Cadmium	0.0500	U	ND	0.0529	mg/L		106	(75%-125%)			
Calcium	2.00		4.65	7.04	mg/L		120	(75%-125%)			
Chromium	0.0500	J	0.00908	0.0603	mg/L		102	(75%-125%)		09/02/22	23:37
Cobalt	0.0500	J	0.000844	0.0514	mg/L		101	(75%-125%)			
Iron	2.00	J	0.0763	2.13	mg/L		103	(75%-125%)			
Lead	0.0500	U	ND	0.0508	mg/L		101	(75%-125%)			
Lithium	0.0500	U	ND	0.0545	mg/L		108	(75%-125%)			
Magnesium	2.00		4.86	7.40	mg/L		127*	(75%-125%)		09/03/22	10:46
Manganese	0.0500		0.0391	0.0930	mg/L		108	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0538	mg/L		108	(75%-125%)			
Potassium	2.00		0.439	2.44	mg/L		100	(75%-125%)		09/02/22	23:37

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## QC Summary

Workorder: **590855**

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Selenium	0.0500	U	ND	0.0496	mg/L		99.2	(75%-125%)	BAJ	09/02/22	23:37
Sodium	2.00		3.36	5.52	mg/L		108	(75%-125%)			
Thallium	0.0500	U	ND	0.0463	mg/L		92.5	(75%-125%)			
QC1205174768	590838001 MSD										
Antimony	0.0500	U	ND	0.0492	mg/L	1.91	97.5	(0%-20%)		09/03/22	14:34
Arsenic	0.0500	U	ND	0.0495	mg/L	1.13	96.9	(0%-20%)		09/02/22	23:41
Barium	0.0500		0.0120	0.0611	mg/L	0.618	98.3	(0%-20%)			
Beryllium	0.0500	U	ND	0.0604	mg/L	1.57	121	(0%-20%)		09/03/22	10:49
Boron	0.100	J	0.00532	0.119	mg/L	1.12	114	(0%-20%)			
Cadmium	0.0500	U	ND	0.0516	mg/L	2.52	103	(0%-20%)			
Calcium	2.00		4.65	6.88	mg/L	2.39	111	(0%-20%)			
Chromium	0.0500	J	0.00908	0.0589	mg/L	2.28	99.7	(0%-20%)		09/02/22	23:41
Cobalt	0.0500	J	0.000844	0.0503	mg/L	2.26	98.9	(0%-20%)			
Iron	2.00	J	0.0763	2.09	mg/L	1.79	101	(0%-20%)			
Lead	0.0500	U	ND	0.0506	mg/L	0.396	101	(0%-20%)			
Lithium	0.0500	U	ND	0.0534	mg/L	2.01	105	(0%-20%)			

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## QC Summary

Workorder: **590855**

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Magnesium	2.00	4.86		7.28	mg/L	1.68	121	(0%-20%)	BAJ	09/03/22	10:49
Manganese	0.0500	0.0391		0.0926	mg/L	0.447	107	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0536	mg/L	0.447	107	(0%-20%)			
Potassium	2.00	0.439		2.38	mg/L	2.49	97.1	(0%-20%)		09/02/22	23:41
Selenium	0.0500	U	ND	0.0478	mg/L	3.8	95.5	(0%-20%)			
Sodium	2.00	3.36		5.45	mg/L	1.34	105	(0%-20%)			
Thallium	0.0500	U	ND	0.0449	mg/L	2.98	89.8	(0%-20%)			
QC1205182314 590838001 PS											
Magnesium	2000	4860		7000	ug/L		107	(75%-125%)		09/03/22	10:52
QC1205174769 590838001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/03/22	14:37
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/02/22	23:48
Barium		12.0	J	2.29	ug/L	4.59		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/03/22	11:04
Boron		J	5.32	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium		4650		892	ug/L	4.21		(0%-20%)			

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## QC Summary

Workorder: 590855

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Chromium	J	9.08	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/02/22	23:48
Cobalt	J	0.844	U	ND	ug/L	N/A		(0%-20%)			
Iron	J	76.3	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		4860		866	ug/L	11		(0%-20%)		09/03/22	11:04
Manganese		39.1		7.50	ug/L	3.96		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		439	J	85.4	ug/L	2.83		(0%-20%)		09/02/22	23:48
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3360		579	ug/L	13.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2308549										
QC1205175103	590719007	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/26/22	10:26
QC1205175102	LCS										
Mercury		0.00200		0.00212	mg/L		106	(80%-120%)		08/26/22	10:09



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## QC Summary

Workorder: **590855**

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2308549										
QC1205175101	MB										
Mercury			U	ND	mg/L				JP2	08/26/22	10:07
QC1205175104	590719007 MS										
Mercury	0.00200	U	ND	0.00152	mg/L		73.9*	(75%-125%)		08/26/22	10:28
QC1205175106	590719007 PS										
Mercury	2.00	U	ND	1.51	ug/L		73.5*	(80%-120%)		08/26/22	10:31
QC1205175105	590719007 SDILT										
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/26/22	10:30
<b>Solids Analysis</b>											
Batch	2309029										
QC1205176100	590857001 DUP										
Total Dissolved Solids			614	616	mg/L	0.325		(0%-5%)	CH6	08/26/22	15:30
QC1205176099	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/26/22	15:30
QC1205176098	MB										
Total Dissolved Solids			U	ND	mg/L					08/26/22	15:30
<b>Titration and Ion Analysis</b>											
Batch	2309339										
QC1205176799	590838001 DUP										
Alkalinity, Total as CaCO3			32.6	32.2	mg/L	1.23		(0%-20%)	HH2	09/04/22	13:40
Bicarbonate alkalinity (CaCO3)			32.6	32.2	mg/L	1.23		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205176801	590857001 DUP										
Alkalinity, Total as CaCO3	J		3.40	J	3.60	mg/L	5.71 ^	(+/-4.00)		09/04/22	13:53

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## QC Summary

Workorder: **590855**

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2309339										
Bicarbonate alkalinity (CaCO3)	J	3.40	J	3.60	mg/L	5.71 ^		(+/-4.00)	HH2	09/04/22	13:53
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205176798 LCS											
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		09/04/22	13:37
QC1205176800 590838001 MS											
Alkalinity, Total as CaCO3	100	32.6		136	mg/L		104	(80%-120%)		09/04/22	13:42
QC1205176802 590857001 MS											
Alkalinity, Total as CaCO3	100 J	3.40		107	mg/L		104	(80%-120%)		09/04/22	13:54

**Notes:**

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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## QC Summary

Workorder: 590855

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
X											
Y											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: October 3, 2022

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 590845

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2308691										
QC1205175345	590838001	DUP									
Chloride		2.18		2.13	mg/L	2.51		(0%-20%)	JLD1	08/25/22	13:28
Fluoride	U	ND	U	ND	mg/L	N/A					
Sulfate		0.452		0.418	mg/L	7.86 ^		(+/-0.400)			
QC1205175347	590857001	DUP									
Chloride		30.3		30.4	mg/L	0.158 ^		(+/-8.00)		08/26/22	03:54
Fluoride		0.187		0.160	mg/L	15.7 ^		(+/-0.100)		08/25/22	21:26
Sulfate		385		387	mg/L	0.559		(0%-20%)		08/26/22	03:54
QC1205175344	LCS										
Chloride	5.00			4.72	mg/L		94.3	(90%-110%)		08/25/22	12:28
Fluoride	2.50			2.30	mg/L		91.9	(90%-110%)			
Sulfate	10.0			9.76	mg/L		97.6	(90%-110%)			
QC1205175343	MB										
Chloride			U	ND	mg/L					08/25/22	11:59
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205175346	590838001	PS									
Chloride	5.00	2.18		7.68	mg/L		110	(90%-110%)		08/25/22	13:58

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## QC Summary

Workorder: 590845

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2308691										
Fluoride	2.50	U	ND	2.65	mg/L		106	(90%-110%)	JLD1	08/25/22	13:58
Sulfate	10.0		0.452	11.6	mg/L		111 *	(90%-110%)			
QC1205175348 590857001 PS											
Chloride	5.00		0.759	5.74	mg/L		99.7	(90%-110%)		08/26/22	04:24
Fluoride	2.50		0.187	2.68	mg/L		99.9	(90%-110%)		08/25/22	21:56
Sulfate	10.0		9.63	20.5	mg/L		109	(90%-110%)		08/26/22	04:24
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
QC1205174766 LCS											
Antimony	0.0500			0.0497	mg/L		99.4	(80%-120%)	BAJ	09/03/22	14:29
Arsenic	0.0500			0.0512	mg/L		102	(80%-120%)		09/02/22	23:30
Barium	0.0500			0.0504	mg/L		101	(80%-120%)			
Beryllium	0.0500			0.0588	mg/L		118	(80%-120%)		09/03/22	10:40
Boron	0.100			0.114	mg/L		114	(80%-120%)			
Cadmium	0.0500			0.0519	mg/L		104	(80%-120%)			
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0510	mg/L		102	(80%-120%)		09/02/22	23:30
Cobalt	0.0500			0.0497	mg/L		99.4	(80%-120%)			

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## QC Summary

Workorder: 590845

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Iron	2.00			2.10	mg/L		105	(80%-120%)	BAJ	09/02/22	23:30
Lead	0.0500			0.0527	mg/L		105	(80%-120%)			
Lithium	0.0500			0.0518	mg/L		104	(80%-120%)			
Magnesium	2.00			2.17	mg/L		109	(80%-120%)		09/03/22	10:40
Manganese	0.0500			0.0512	mg/L		102	(80%-120%)			
Molybdenum	0.0500			0.0521	mg/L		104	(80%-120%)			
Potassium	2.00			1.99	mg/L		99.7	(80%-120%)		09/02/22	23:30
Selenium	0.0500			0.0494	mg/L		98.9	(80%-120%)			
Sodium	2.00			2.22	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0460	mg/L		92.1	(80%-120%)			
QC1205174765	MB										
Antimony			U	ND	mg/L					09/03/22	14:27
Arsenic			U	ND	mg/L					09/02/22	23:27
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/03/22	10:37
Boron			U	ND	mg/L						

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## QC Summary

Workorder: 590845

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Cadmium			U	ND	mg/L				BAJ	09/03/22	10:37
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L					09/02/22	23:27
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					09/03/22	10:37
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					09/02/22	23:27
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205174767	590838001	MS									
Antimony	0.0500	U	ND	0.0501	mg/L		99.4	(75%-125%)		09/03/22	14:32

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## QC Summary

Workorder: 590845

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Arsenic	0.0500	U	ND	0.0500	mg/L		98	(75%-125%)	BAJ	09/02/22	23:37
Barium	0.0500		0.0120	0.0615	mg/L		99.1	(75%-125%)			
Beryllium	0.0500	U	ND	0.0613	mg/L		123	(75%-125%)		09/03/22	10:46
Boron	0.100	J	0.00532	0.120	mg/L		115	(75%-125%)			
Cadmium	0.0500	U	ND	0.0529	mg/L		106	(75%-125%)			
Calcium	2.00		4.65	7.04	mg/L		120	(75%-125%)			
Chromium	0.0500	J	0.00908	0.0603	mg/L		102	(75%-125%)		09/02/22	23:37
Cobalt	0.0500	J	0.000844	0.0514	mg/L		101	(75%-125%)			
Iron	2.00	J	0.0763	2.13	mg/L		103	(75%-125%)			
Lead	0.0500	U	ND	0.0508	mg/L		101	(75%-125%)			
Lithium	0.0500	U	ND	0.0545	mg/L		108	(75%-125%)			
Magnesium	2.00		4.86	7.40	mg/L		127*	(75%-125%)		09/03/22	10:46
Manganese	0.0500		0.0391	0.0930	mg/L		108	(75%-125%)			
Molybdenum	0.0500	U	ND	0.0538	mg/L		108	(75%-125%)			
Potassium	2.00		0.439	2.44	mg/L		100	(75%-125%)		09/02/22	23:37



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## QC Summary

Workorder: 590845

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Selenium	0.0500	U	ND	0.0496	mg/L		99.2	(75%-125%)	BAJ	09/02/22	23:37
Sodium	2.00		3.36	5.52	mg/L		108	(75%-125%)			
Thallium	0.0500	U	ND	0.0463	mg/L		92.5	(75%-125%)			
QC1205174768	590838001 MSD										
Antimony	0.0500	U	ND	0.0492	mg/L	1.91	97.5	(0%-20%)		09/03/22	14:34
Arsenic	0.0500	U	ND	0.0495	mg/L	1.13	96.9	(0%-20%)		09/02/22	23:41
Barium	0.0500		0.0120	0.0611	mg/L	0.618	98.3	(0%-20%)			
Beryllium	0.0500	U	ND	0.0604	mg/L	1.57	121	(0%-20%)		09/03/22	10:49
Boron	0.100	J	0.00532	0.119	mg/L	1.12	114	(0%-20%)			
Cadmium	0.0500	U	ND	0.0516	mg/L	2.52	103	(0%-20%)			
Calcium	2.00		4.65	6.88	mg/L	2.39	111	(0%-20%)			
Chromium	0.0500	J	0.00908	0.0589	mg/L	2.28	99.7	(0%-20%)		09/02/22	23:41
Cobalt	0.0500	J	0.000844	0.0503	mg/L	2.26	98.9	(0%-20%)			
Iron	2.00	J	0.0763	2.09	mg/L	1.79	101	(0%-20%)			
Lead	0.0500	U	ND	0.0506	mg/L	0.396	101	(0%-20%)			
Lithium	0.0500	U	ND	0.0534	mg/L	2.01	105	(0%-20%)			

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## QC Summary

Workorder: **590845**

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Magnesium	2.00	4.86		7.28	mg/L	1.68	121	(0%-20%)	BAJ	09/03/22	10:49
Manganese	0.0500	0.0391		0.0926	mg/L	0.447	107	(0%-20%)			
Molybdenum	0.0500	U	ND	0.0536	mg/L	0.447	107	(0%-20%)			
Potassium	2.00	0.439		2.38	mg/L	2.49	97.1	(0%-20%)		09/02/22	23:41
Selenium	0.0500	U	ND	0.0478	mg/L	3.8	95.5	(0%-20%)			
Sodium	2.00	3.36		5.45	mg/L	1.34	105	(0%-20%)			
Thallium	0.0500	U	ND	0.0449	mg/L	2.98	89.8	(0%-20%)			
QC1205182314	590838001 PS										
Magnesium	2000	4860		7000	ug/L		107	(75%-125%)		09/03/22	10:52
QC1205174769	590838001 SDILT										
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/03/22	14:37
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/02/22	23:48
Barium			12.0	J	2.29	ug/L	4.59	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/03/22	11:04
Boron		J	5.32	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			4650		892	ug/L	4.21	(0%-20%)			

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## QC Summary

Workorder: 590845

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2308385										
Chromium	J	9.08	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/02/22	23:48
Cobalt	J	0.844	U	ND	ug/L	N/A		(0%-20%)			
Iron	J	76.3	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		4860		866	ug/L	11		(0%-20%)		09/03/22	11:04
Manganese		39.1		7.50	ug/L	3.96		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		439	J	85.4	ug/L	2.83		(0%-20%)		09/02/22	23:48
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3360		579	ug/L	13.8		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2308555										
QC1205175118	589727024 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	08/26/22	11:15
QC1205175117	LCS										
Mercury		0.00200		0.00220	mg/L		110	(80%-120%)		08/26/22	11:07

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## QC Summary

Workorder: **590845**

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2308555										
QC1205175116	MB										
Mercury			U	ND	mg/L				JP2	08/26/22	11:05
QC1205175119	589727024	MS									
Mercury	0.00200	U	ND	0.00222	mg/L		110	(75%-125%)		08/26/22	11:17
QC1205175120	589727024	SDILT									
Mercury		U	ND	U	ug/L	N/A		(0%-10%)		08/26/22	11:19
<b>Solids Analysis</b>											
Batch	2309029										
QC1205176100	590857001	DUP									
Total Dissolved Solids			614	616	mg/L	0.325		(0%-5%)	CH6	08/26/22	15:30
QC1205176099	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		08/26/22	15:30
QC1205176098	MB										
Total Dissolved Solids			U	ND	mg/L					08/26/22	15:30
<b>Titration and Ion Analysis</b>											
Batch	2309339										
QC1205176799	590838001	DUP									
Alkalinity, Total as CaCO3			32.6	32.2	mg/L	1.23		(0%-20%)	HH2	09/04/22	13:40
Bicarbonate alkalinity (CaCO3)			32.6	32.2	mg/L	1.23		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	mg/L	N/A					
QC1205176801	590857001	DUP									
Alkalinity, Total as CaCO3		J	3.40	J	3.60	mg/L	5.71 ^	(+/-4.00)		09/04/22	13:53
Bicarbonate alkalinity (CaCO3)		J	3.40	J	3.60	mg/L	5.71 ^	(+/-4.00)			

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## QC Summary

Workorder: **590845**

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2309339										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A			HH2	09/04/22	13:53
QC1205176798 LCS Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		09/04/22	13:37
QC1205176800 590838001 MS Alkalinity, Total as CaCO3	100	32.6		136	mg/L		104	(80%-120%)		09/04/22	13:42
QC1205176802 590857001 MS Alkalinity, Total as CaCO3	100	J	3.40	107	mg/L		104	(80%-120%)		09/04/22	13:54

**Notes:**

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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## QC Summary

Workorder: 590845

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Y											
Z											
^											
d											
e											
h											

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 591355**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2310153

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2310152

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355001	FD-01
591355002	PZ-58I
591355003	PZ-60I
591355004	FB-02
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355011	PZ-51I
1205178579	Method Blank (MB)ICP-MS
1205178580	Laboratory Control Sample (LCS)
1205178583	591351001(BRGWC-17SL) Serial Dilution (SD)
1205178581	591351001(BRGWC-17SS) Matrix Spike (MS)
1205178582	591351001(BRGWC-17SSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

### Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	591355							
	001	002	003	005	006	007	010	011
Boron	5X	5X	5X	10X	20X	5X	20X	5X
Calcium	5X	5X	10X	10X	20X	5X	1X	5X
Cobalt	1X	1X	5X	1X	1X	5X	1X	1X
Magnesium	5X	5X	5X	1X	20X	5X	1X	5X
Manganese	100X	100X	1000X	10X	20X	1000X	1X	1000X
Sodium	1X	1X	5X	1X	1X	5X	1X	1X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2310155

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2310154

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
591355015	FD-02
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I
591355021	FB-03
591355022	PZ-63I
591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
1205178584	Method Blank (MB)ICP-MS
1205178585	Laboratory Control Sample (LCS)
1205178588	591355012(PZ-51DL) Serial Dilution (SD)
1205178586	591355012(PZ-51DS) Matrix Spike (MS)
1205178587	591355012(PZ-51DSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.



**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020A/6020B met the advisory control limits with the exception of calcium. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected. 591355014 (PZ-51S), 591355015 (FD-02), 591355017 (EB-06), 591355021 (FB-03), 591355022 (PZ-63I), 591355024 (BRGWC-32S), 591355025 (EB-07) and 591355026 (BRGWC-52I).

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 591355012 (PZ-51D), 591355013 (PZ-61I), 591355016 (PZ-50D), 591355018 (PZ-62I), 591355019 (PZ-59I), 591355020 (BRGWC-27I), 591355022 (PZ-63I), 591355023 (PZ-57I), 591355024 (BRGWC-32S) and 591355026 (BRGWC-52I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, sample 591355019 (PZ-59I) was diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	591355									
	012	013	016	018	019	020	022	023	024	026
Barium	1X	1X	1X	1X	5X	1X	1X	1X	1X	1X
Boron	1X	5X	5X	5X	1X	10X	10X	5X	10X	20X
Calcium	10X	5X	5X	5X	100X	10X	1X	5X	1X	1X
Cobalt	1X	1X	1X	1X	5X	1X	1X	1X	1X	1X
Iron	1X	1X	1X	1X	100X	1X	1X	1X	1X	1X
Lead	1X	1X	1X	1X	5X	1X	1X	1X	1X	1X
Magnesium	1X	5X	5X	5X	5X	1X	1X	1X	1X	1X
Manganese	10X	1000X	100X	100X	100X	1X	10X	20X	1X	1X
Sodium	1X	5X	5X	1X	5X	1X	1X	1X	1X	1X
Thallium	1X	1X	1X	1X	5X	1X	1X	1X	1X	1X

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method: SW846 7470A**

**Analytical Procedure: GL-MA-E-010 REV# 38**

**Analytical Batch: 2310246**

**Preparation Method: SW846 7470A Prep**

**Preparation Procedure: GL-MA-E-010 REV# 38**

**Preparation Batch:** 2310245

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355001	FD-01
591355002	PZ-58I
591355003	PZ-60I
591355004	FB-02
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355011	PZ-51I
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
591355015	FD-02
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I
1205178776	Method Blank (MB)CVAA
1205178777	Laboratory Control Sample (LCS)
1205178780	591355002(PZ-58IL) Serial Dilution (SD)
1205178778	591355002(PZ-58ID) Sample Duplicate (DUP)
1205178779	591355002(PZ-58IS) Matrix Spike (MS)
1205178781	591355002(PZ-58IPS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS/MSD) Recovery Statement**

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205178779 (PZ-58IMS)	Mercury	57.7* (75%-125%)

**Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less

than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205178781 (PZ-58IPS)	Mercury	54.6* (80%-120%)

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method: SW846 7470A**

**Analytical Procedure: GL-MA-E-010 REV# 38**

**Analytical Batch: 2310248**

**Preparation Method: SW846 7470A Prep**

**Preparation Procedure: GL-MA-E-010 REV# 38**

**Preparation Batch: 2310247**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355021	FB-03
591355022	PZ-63I
591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
1205178782	Method Blank (MB)CVAA
1205178783	Laboratory Control Sample (LCS)
1205178786	590142001(NonSDGL) Serial Dilution (SD)
1205178784	590142001(NonSDGD) Sample Duplicate (DUP)
1205178785	590142001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product: Ion Chromatography**

**Analytical Method: EPA 300.0**

**Analytical Procedure: GL-GC-E-086 REV# 30**

**Analytical Batch: 2310523**

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591355001	FD-01
591355002	PZ-58I
591355003	PZ-60I
591355004	FB-02
1205179258	Method Blank (MB)
1205179259	Laboratory Control Sample (LCS)
1205179260	591351001(BRGWC-17S) Sample Duplicate (DUP)
1205179261	591351001(BRGWC-17S) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205179260 (BRGWC-17SDUP), 1205179261 (BRGWC-17SPS), 591355001 (FD-01), 591355002 (PZ-58I) and 591355003 (PZ-60I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	591355		
	001	002	003
Chloride	5X	5X	5X
Sulfate	100X	100X	200X

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2310658

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355011	PZ-51I
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
1205179523	Method Blank (MB)

1205179524	Laboratory Control Sample (LCS)
1205179525	591355005(BRGWC-29I) Sample Duplicate (DUP)
1205179526	591355005(BRGWC-29I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205179526 (BRGWC-29IPS)	131* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205179525 (BRGWC-29IDUP), 1205179526 (BRGWC-29IPS), 591355005 (BRGWC-29I), 591355006 (BRGWC-30I), 591355007 (BRGWC-50), 591355008 (FD-03), 591355009 (BRGWC-45), 591355010 (PZ-44), 591355011 (PZ-51I), 591355012 (PZ-51D) and 591355013 (PZ-61I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	591355								
	005	006	007	008	009	010	011	012	013
Chloride	1X	1X	5X	10X	10X	1X	2X	50X	10X
Sulfate	100X	100X	100X	10X	10X	10X	100X	50X	200X

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2310688

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355015	FD-02
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I

591355021	FB-03
591355022	PZ-63I
591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
1205179577	Method Blank (MB)
1205179578	Laboratory Control Sample (LCS)
1205179579	591355015(FD-02) Sample Duplicate (DUP)
1205179580	591355015(FD-02) Post Spike (PS)
1205179581	591355026(BRGWC-52I) Sample Duplicate (DUP)
1205179582	591355026(BRGWC-52I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205179580 (FD-02PS)	111* (90%-110%)
	1205179582 (BRGWC-52IPS)	117* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205179581 (BRGWC-52IDUP), 1205179582 (BRGWC-52IPS), 591355016 (PZ-50D), 591355018 (PZ-62I), 591355019 (PZ-59I), 591355020 (BRGWC-27I), 591355022 (PZ-63I), 591355023 (PZ-57I), 591355024 (BRGWC-32S) and 591355026 (BRGWC-52I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	591355							
	016	018	019	020	022	023	024	026
Chloride	100X	1X	200X	1X	1X	1X	1X	1X
Sulfate	100X	50X	200X	20X	20X	40X	20X	10X

**Miscellaneous Information**

**Manual Integrations**

Samples 591355018 (PZ-62I) and 591355019 (PZ-59I) were manually integrated to correctly position the

baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 19

**Analytical Batch:** 2310249

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355001	FD-01
591355002	PZ-58I
591355003	PZ-60I
591355004	FB-02
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355011	PZ-51I
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
591355015	FD-02
1205178788	Method Blank (MB)
1205178789	Laboratory Control Sample (LCS)
1205178791	591355007(BRGWC-50) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 19

**Analytical Batch:** 2310760

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I
591355021	FB-03
591355022	PZ-63I

591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
1205179714	Method Blank (MB)
1205179715	Laboratory Control Sample (LCS)
1205179716	591355024(BRGWC-32S) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2310459

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355001	FD-01
591355002	PZ-58I
591355003	PZ-60I
591355004	FB-02
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355011	PZ-51I
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
591355015	FD-02
1205179131	Laboratory Control Sample (LCS)
1205179134	591355012(PZ-51D) Sample Duplicate (DUP)
1205179135	591355012(PZ-51D) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2310460



The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I
591355021	FB-03
591355022	PZ-63I
591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
1205179136	Laboratory Control Sample (LCS)
1205179137	591355008(FD-03) Sample Duplicate (DUP)
1205179138	591355008(FD-03) Matrix Spike (MS)
1205179139	591355026(BRGWC-52I) Sample Duplicate (DUP)
1205179140	591355026(BRGWC-52I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 590855**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2308385

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2308382

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
1205174765	Method Blank (MB) <b>ICP-MS</b>
1205174766	Laboratory Control Sample (LCS)
1205174769	590838001(BRGWA-2SL) Serial Dilution (SD)
1205174767	590838001(BRGWA-2SS) Matrix Spike (MS)
1205174768	590838001(BRGWA-2SSD) Matrix Spike Duplicate (MSD)
1205182314	590838001(BRGWA-2SPS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS/MSD) Recovery Statement**

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or

non-homogeneity.

Sample	Analyte	Value
1205174767 (BRGWA-2SMS)	Magnesium	127* (75%-125%)

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 590855004 (BRGWC-25I) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>590855</b>
	<b>004</b>
Boron	20X
Calcium	20X
Manganese	20X

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method: SW846 7470A**

**Analytical Procedure: GL-MA-E-010 REV# 38**

**Analytical Batch: 2308549**

**Preparation Method: SW846 7470A Prep**

**Preparation Procedure: GL-MA-E-010 REV# 38**

**Preparation Batch: 2308547**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
1205175101	Method Blank (MB)CVAA
1205175102	Laboratory Control Sample (LCS)
1205175105	590719007(NonSDGL) Serial Dilution (SD)
1205175103	590719007(NonSDGD) Sample Duplicate (DUP)
1205175104	590719007(NonSDGS) Matrix Spike (MS)
1205175106	590719007(NonSDGPS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

#### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

## Quality Control (QC) Information

### **Matrix Spike (MS/MSD) Recovery Statement**

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205175104 (Non SDG 590719007MS)	Mercury	73.9* (75%-125%)

### **Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205175106 (Non SDG 590719007PS)	Mercury	73.5* (80%-120%)

## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2308691

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
1205175343	Method Blank (MB)
1205175344	Laboratory Control Sample (LCS)
1205175345	590838001(BRGWA-2S) Sample Duplicate (DUP)
1205175346	590838001(BRGWA-2S) Post Spike (PS)
1205175347	590857001(BRGWC-33S) Sample Duplicate (DUP)
1205175348	590857001(BRGWC-33S) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Sulfate	1205175346 (BRGWA-2SPS)	111* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205175347 (BRGWC-33SDUP), 1205175348 (BRGWC-33SPS) and 590855004 (BRGWC-25I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	590855
	004
Sulfate	20X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 19

**Analytical Batch:** 2309029

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
1205176098	Method Blank (MB)
1205176099	Laboratory Control Sample (LCS)
1205176100	590857001(BRGWC-33S) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2309339

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
1205176798	Laboratory Control Sample (LCS)
1205176799	590838001(BRGWA-2S) Sample Duplicate (DUP)
1205176800	590838001(BRGWA-2S) Matrix Spike (MS)
1205176801	590857001(BRGWC-33S) Sample Duplicate (DUP)
1205176802	590857001(BRGWC-33S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 590845**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2308385

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2308382

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
1205174765	Method Blank (MB) <b>ICP-MS</b>
1205174766	Laboratory Control Sample (LCS)
1205174769	590838001(BRGWA-2SL) Serial Dilution (SD)
1205174767	590838001(BRGWA-2SS) Matrix Spike (MS)
1205174768	590838001(BRGWA-2SSD) Matrix Spike Duplicate (MSD)
1205182314	590838001(BRGWA-2SPS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS/MSD) Recovery Statement**

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1205174767 (BRGWA-2SMS)	Magnesium	127* (75%-125%)

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 590845002 (BRGWC-47) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>590845</b>
	<b>002</b>
Boron	10X
Calcium	10X
Magnesium	10X

#### **Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 38

**Analytical Batch:** 2308555

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 38

**Preparation Batch:** 2308553

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
1205175116	Method Blank (MB)CVAA
1205175117	Laboratory Control Sample (LCS)
1205175120	589727024(NonSDGL) Serial Dilution (SD)
1205175118	589727024(NonSDGD) Sample Duplicate (DUP)
1205175119	589727024(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

#### **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

### **General Chemistry**



**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2308691

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
1205175343	Method Blank (MB)
1205175344	Laboratory Control Sample (LCS)
1205175345	590838001(BRGWA-2S) Sample Duplicate (DUP)
1205175346	590838001(BRGWA-2S) Post Spike (PS)
1205175347	590857001(BRGWC-33S) Sample Duplicate (DUP)
1205175348	590857001(BRGWC-33S) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Sulfate	1205175346 (BRGWA-2SPS)	111* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205175347 (BRGWC-33SDUP), 1205175348 (BRGWC-33SPS), 590845001 (BRGWA-23S) and 590845002 (BRGWC-47) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	590845	
	001	002
Sulfate	2X	200X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 19

**Analytical Batch:** 2309029

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
1205176098	Method Blank (MB)
1205176099	Laboratory Control Sample (LCS)
1205176100	590857001(BRGWC-33S) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** Alkalinity

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2309339

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
1205176798	Laboratory Control Sample (LCS)
1205176799	590838001(BRGWA-2S) Sample Duplicate (DUP)
1205176800	590838001(BRGWA-2S) Matrix Spike (MS)
1205176801	590857001(BRGWC-33S) Sample Duplicate (DUP)
1205176802	590857001(BRGWC-33S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds ~ BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Collected By: *Jordan Bonstorf* \* Send Results To: SCS & Geosyntec Contacts  
*Anna Schwab*

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (hh:mm)	QC Code (3)	Field Filtered (4)	Sample Matrix (4)	Radioactive (if yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C	Total & Breath Air	Metals * SM 2320B	EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	Preservative Type (6)	Comments
FD-01	08/24/22	—	G	N	WG			7	✓	✓	✓	✓	NA	field pH = NA	Note: extra sample is required for sample specific QC
PZ-58I	08/24/22	1030	G	N	WG			7	✓	✓	✓	✓	3.81	field pH = 3.81	
PZ-60I	08/24/22	1220	G	N	WG			7	✓	✓	✓	✓	4.55	field pH = 4.55	
FB-02	08/24/22	1555	G	N	WG			7	✓	✓	✓	✓	N/A	field pH = N/A	
BR6WC-29I	08/24/22	1710	G	N	WG			7	✓	✓	✓	✓	4.39	field pH = 4.39	
BR6WC-30I	08/24/22	1609	G	N	WG			7	✓	✓	✓	✓	6.38	field pH = 6.38	
BR6WC-50	08/24/22	1451	G	N	WG			7	✓	✓	✓	✓	5.07	field pH = 5.07	
FD-03	08/25/22	—	G	N	WG			7	✓	✓	✓	✓	N/A	field pH = N/A	
BR6WC-45	08/25/22	1010	G	N	WG			7	✓	✓	✓	✓	5.74	field pH = 5.74	
PZ-44	08/25/22	1131	G	N	WG			7	✓	✓	✓	✓	6.06	field pH = 6.06	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Date	Time
<i>[Signature]</i>	8/29/22	1515	<i>[Signature]</i>	8/29/22 1515
2				
3				

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR).**

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_  
 TSCA Regulated: PCB = Polychlorinated biphenyls  
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals  
 Pb = Lead  
 Other: OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)





**Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**Chain of Custody and Analytical Request**

**GEL Work Order Number:** *404-506-7116* **GEL Project Manager:** *Erin Trent*

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds *BCD*  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone #: 404-506-7116  
 Fax #: *BCD*

Collected By: *Hunter Auld + Angie Schnitzler* Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (hh:mm)	QC Code (e)	Field Filtered (d)	Sample Matrix (e)	Radiactive (f) yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (g) (Fill in the number of containers for each test)	Preservative Type (h)	Comments
<i>PZ-51I</i>	<i>08/24/22</i>	<i>1234</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>5.49</i>
<i>PZ-51D</i>	<i>08/24/22</i>	<i>1049</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>7.15</i> <i>7.15</i>
<i>PZ-60I</i>	<i>08/24/22</i>	<i>1402</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>5.14</i>
<i>PZ-51S</i>	<i>08/24/22</i>	<i>1609</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>6.12</i>
<i>FD-0Z</i>	<i>08/24/22</i>	<i>---</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>---</i>
<i>PZ-50D</i>	<i>08/25/22</i>	<i>0951</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>6.11</i>
<i>EB-06</i>	<i>08/25/22</i>	<i>0942</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>---</i>
<i>PZ-60I</i>	<i>08/25/22</i>	<i>1121</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>5.50</i>
<i>PZ-59I</i>	<i>08/25/22</i>	<i>1316</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>3.72</i>

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

1. *[Signature]* *8/24/22 1515*  
 2. *[Signature]* *8/24/22 1515*  
 3. *[Signature]* *8/24/22 1515*

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS
 

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Work Order Number:** \_\_\_\_\_  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

**Client Name:** GA Power  
**Project/Site Name:** Plant Branch Ash Ponds B/C/D  
**Address:** 241 Ralph McGill Blvd SE, Atlanta GA 30308

**Collected By:** Taylor Coble / Anna Schmittke  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	OC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioreactive (If Yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	EPA 300, SM 2540C Cl, F, SO4, TDS	Total & Biocarb Alk SM 2320B	Metals * EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	Preservative Type (6)	Comments
BRGWC-27I	08/25/22	1012	G	N	WG			7	✓	✓	✓	✓		field pH = 6.03
FB-03	08/25/22	1045	G	N	WG			7	✓	✓	✓	✓		field pH = —
PZ-63I	08/25/22	1220	G	N	WG			7	✓	✓	✓	✓		field pH = 5.65
PZ-57I	08/25/22	1055	G	N	WG			7	✓	✓	✓	✓		field pH = 5.91
BRGWC-325	08/25/22	1235	G	N	WG			7	✓	✓	✓	✓		field pH = 6.06
EB-07	08/25/22	1245	G	N	WG			7	✓	✓	✓	✓		field pH = —
BRGWC-52I	08/25/22	1255	G	N	WG			7	✓	✓	✓	✓		field pH = 6.21
														field pH =
														field pH =
														field pH =

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date 8/29/22 1515 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

2. \_\_\_\_\_ 8/29/22 1515 \_\_\_\_\_  
 3. \_\_\_\_\_

**TAT Requested:** Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

**Additional Remarks:** \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg

**For Lab Receiving Use Only:** Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

**Sample Collection Time Zone:**  Eastern  Pacific  Mountain  Other: \_\_\_\_\_

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FB = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

**RCRA Metals**  
 As = Arsenic Hg= Mercury  
 Ba = Barium Se= Selenium  
 Cd = Cadmium Ag= Silver  
 Cr = Chromium MR= Misc. RCRA metals  
 Pb = Lead

**Characteristic Hazards**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

**Listed Waste**  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls

**Other**  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>CPCC</u>		SDG/AR/COC/Work Order: <u>591355</u>		<u>ET</u>	
Received By: <u>Thyasia Tatum</u>		Date Received: <u>8/29/20</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier <u>Other</u>			
Suspected Hazard Information		Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1    Rad 2    Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below: PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:	
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs    Dry ice    None    Other: *all temperatures recorded in Celsius    TEMP: <u>1C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials AM    Date 8/31/20    Page 1 of 7



590855, 590856

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number: \_\_\_\_\_  
 PO Number: \_\_\_\_\_



**Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**Chain of Custody and Analytical Request**  
 GEL Project Manager: Erin Trent

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (0)	Sample Matrix (0)	Radioactive (If yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRGWA-12I	08/23/22	1143	G	N	WG		7	EPA 300, SM 2540C CI, F, SO4, TDS	NI		Note: extra sample is required for sample specific QC
FB-01	08/23/22	1315	G	N	WQ		7	Total & Bleach Alk SM 2320B	NI		field pH = 6.39
BRGWA-12S	08/23/22	1338	G	N	WG		7	EPA 6020B, 6010D Radium 226 & 228 SW-846 9315, 9320	NI		field pH = NA
BRGW-25I	08/23/22	1541	G	N	WG		7				field pH = 5.90
											field pH = 6.11
											field pH = _____
											field pH = _____
											field pH = _____
											field pH = _____
											field pH = _____
											field pH = _____

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	8/24/22	<i>[Signature]</i>	8/24/22	1:27
<i>[Signature]</i>	8/24/22	<i>[Signature]</i>	8/24/22	1:27
<i>[Signature]</i>	8/24/22	<i>[Signature]</i>	8/24/22	1:27

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Lachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B, 7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1).  
 6.) Preservative Type: BA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

KNOWN OR POSSIBLE HAZARDS	Characteristic Hazards	Listed Waste	Other
RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

590851, 590855, 590856, 590857, 59085

Client: GPOC SDG/AR/COC/Work Order: 590838, 590840, 590845  
 Received By: Thyasia Tatum Date Received: 8/24/22  
 Carrier and Tracking Number: \_\_\_\_\_  
 FedEx Express  FedEx Ground  UPS  Field Services  **Courier**  Other

**Suspected Hazard Information**

Yes No  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?  Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples to be received as radioactive?  COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?  Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous?  COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?  If D or E is yes, select Hazards below:  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: <u>2°C</u></span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



590845, 590851

Page: \_\_\_\_\_ of \_\_\_\_\_

Project # \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number (1): \_\_\_\_\_

PO Number: \_\_\_\_\_

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Work Order Number: \_\_\_\_\_

Client Name: GA Power  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Project/Site Name: Plant Branch Ash Ponds  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Sample Analysis Requested (6) (Fill in the number of containers for each test)

Preservative Type (6)	
Comments	Note: extra sample is required for sample specific QC
field pH = 5.66	
field pH = 5.61	
field pH = N/A	
field pH =	
field pH =	
field pH =	
field pH =	
field pH =	
field pH =	
field pH =	
field pH =	

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (6)	Field Filtered (6)	Sample Matrix (6)	Total number of containers	Should this sample be considered:	Preservative Type (6)	Comments
BR 6wA-25s	08/25/22	1345	G	N	WG	7	Yes, please supply isotopic info (if radioactive)		
BR 6wC-47	08/23/22	1520	G	N	WG	7			
EB-05	08/23/22	1455	G	N	WG	7			

Send Results To: SCS & Geosyntec Contacts

Collected By: Jordan Berisford

\* For composites - indicate start and stop date/time

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
[Signature]	8/24/22	[Signature]	8/24/22	0845
[Signature]	8/24/22	[Signature]	8/24/22	1327

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered

Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1)

Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: Bi, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

KNOWN OR POSSIBLE HAZARDS	Characteristics Hazards	Listed Waste	Other
RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

590851, 590855, 590856, 590857, 590858

Client: GPEC SDG/AR/COC/Work Order: 590838, 590840, 590845,  
 Received By: Thyasia Tatum Date Received: 8/24/02

Carrier and Tracking Number: \_\_\_\_\_  
 Circle Applicable: FedEx Express  FedEx Ground  UPS  Field Services  **Courier**  Other

Suspected Hazard Information: Yes  No  \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous? Yes  No  Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes  No   
 B) Did the client designate the samples to be received as radioactive? Yes  No  COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive? Yes  No  Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): Φ CPM / mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous? Yes  No  COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards? Yes  No  If D or E is yes, select Hazards below.  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <b>Wet Ice</b> Ice Packs Dry ice None Other: *all temperatures recorded in Celsius <b>TEMP: 2C</b>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR2-20 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed): \_\_\_\_\_

PM (or PMA) review: Initials \_\_\_\_\_ Date \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

**List of current GEL Certifications as of 03 October 2022**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-137
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



November 09, 2022

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APB  
Work Order: 599840

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on November 08, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

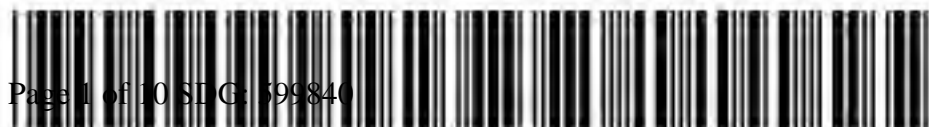
Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0003  
Enclosures



**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 599840 GEL Work Order: 599840

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.



Reviewed by \_\_\_\_\_

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 9, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

---

Client Sample ID:	PZ-64I	Project:	GPCC00101
Sample ID:	599840001	Client ID:	GPCC001
Matrix:	WG		
Collect Date:	07-NOV-22 12:59		
Receive Date:	08-NOV-22		
Collector:	Client		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Cobalt		8.97	0.00600	0.0200	mg/L	1.00	20	PRB	11/09/22	0828	2339502	1

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	11/08/22	0900	2339501

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: November 9, 2022

Page 1 of 2

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 599840

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2339502										
QC1205238973	LCS										
Cobalt	0.0500			0.0473	mg/L		94.7	(80%-120%)	PRB	11/09/22	08:25
QC1205238972	MB										
Cobalt			U	ND	mg/L					11/09/22	08:22
QC1205238974	599840001	MS									
Cobalt	0.0500	8.97		9.01	mg/L		N/A	(75%-125%)		11/09/22	08:30
QC1205238975	599840001	MSD									
Cobalt	0.0500	8.97		8.87	mg/L	1.51	N/A	(0%-20%)		11/09/22	08:33
QC1205238976	599840001	SDILT									
Cobalt		448		86.9	ug/L	3.13		(0%-20%)		11/09/22	08:36

**Notes:**

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 599840

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 599840**

**Product:** Determination of Metals by ICP-MS  
**Analytical Method:** SW846 3005A/6020B  
**Analytical Procedure:** GL-MA-E-014 REV# 35  
**Analytical Batch:** 2339502

**Preparation Method:** SW846 3005A  
**Preparation Procedure:** GL-MA-E-006 REV# 14  
**Preparation Batch:** 2339501

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
599840001	PZ-64I
1205238972	Method Blank (MB)ICP-MS
1205238973	Laboratory Control Sample (LCS)
1205238976	599840001(PZ-64IL) Serial Dilution (SD)
1205238974	599840001(PZ-64IS) Matrix Spike (MS)
1205238975	599840001(PZ-64ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 599840001 (PZ-64I) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

	<b>599840</b>
Analyte	<b>001</b>
Cobalt	20X

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.





SAMPLE RECEIPT & REVIEW FORM

ET 599840

Client: <u>CIPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>MVH</u>		Date Received: <u>11.8.2022</u>		
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other		
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?			Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?			<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?			<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?			If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: <u>3</u></span>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):				

PM (or PMA) review: Initials AE Date 11/10/22 Page \_\_\_ of \_\_\_

**List of current GEL Certifications as of 09 November 2022**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

December 08, 2022

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Orders: 591358,590851 and 590856

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 24, 2022 and August 29, 2022. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package has been revised to report new MDC values for the Ra-226+228 Sum results.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Edith Kent for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0003  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 591358 GEL Work Order: 591358

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.



Reviewed by \_\_\_\_\_

**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 590856 GEL Work Order: 590856

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.



Reviewed by \_\_\_\_\_



**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 590851 GEL Work Order: 590851

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.



Reviewed by \_\_\_\_\_

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-01  
Sample ID: 591358001  
Matrix: WG  
Collect Date: 24-AUG-22  
Receive Date: 29-AUG-22  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.32	+/-1.07	1.71	+/-1.12	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.89	+/-1.12	1.71	+/-1.17		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.571	+/-0.336	0.461	+/-0.347	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	83.2	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-58I  
 Sample ID: 591358002  
 Matrix: WG  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.837	+/-0.837	1.38	+/-0.864	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.16	+/-0.867	1.38	+/-0.893		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.322	+/-0.223	0.305	+/-0.228	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	82.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
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 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-60I

Project: GPCC00101

Sample ID: 591358003

Client ID: GPCC001

Matrix: WG

Collect Date: 24-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.80	+/-1.34	1.99	+/-1.52	3.00	pCi/L			JXC9	09/20/22	1002	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.50	+/-1.38	1.99	+/-1.55		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.704	+/-0.307	0.245	+/-0.325	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	82.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-02  
 Sample ID: 591358004  
 Matrix: WQ  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.996	+/-1.07	1.78	+/-1.10	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.996	+/-1.08	1.78	+/-1.11		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	-0.0256	+/-0.194	0.413	+/-0.194	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	82.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-29I  
 Sample ID: 591358005  
 Matrix: WG  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.60	+/-1.10	1.71	+/-1.17	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.97	+/-1.13	1.71	+/-1.20		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.368	+/-0.231	0.291	+/-0.246	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	83	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-30I

Project: GPCC00101

Sample ID: 591358006

Client ID: GPCC001

Matrix: WG

Collect Date: 24-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.72	+/-1.28	1.88	+/-1.46	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.26	+/-1.31	1.88	+/-1.48		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.542	+/-0.260	0.260	+/-0.279	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	82.9	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
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241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-50

Project: GPCC00101

Sample ID: 591358007

Client ID: GPCC001

Matrix: WG

Collect Date: 24-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.22	+/-1.15	1.89	+/-1.19	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.87	+/-1.18	1.89	+/-1.22		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.649	+/-0.257	0.222	+/-0.289	1.00	pCi/L			LXP1	09/15/22	0953	2310752	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	78.6	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-03  
 Sample ID: 591358008  
 Matrix: WG  
 Collect Date: 25-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.88	+/-1.60	2.60	+/-1.67	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.44	+/-1.62	2.60	+/-1.69		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.561	+/-0.277	0.283	+/-0.289	1.00	pCi/L			LXP1	09/15/22	1027	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	66.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-45

Project: GPCC00101

Sample ID: 591358009

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.15	+/-1.41	2.39	+/-1.44	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.65	+/-1.44	2.39	+/-1.47		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.491	+/-0.281	0.376	+/-0.292	1.00	pCi/L			LXP1	09/15/22	1025	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	76.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-44  
 Sample ID: 591358010  
 Matrix: WG  
 Collect Date: 25-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.31	+/-1.13	1.83	+/-1.18	3.00	pCi/L			JXC9	09/20/22	1003	2310792	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.60	+/-1.15	1.83	+/-1.20		pCi/L		1	NXL1	09/23/22	0955	2310789	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.287	+/-0.211	0.275	+/-0.221	1.00	pCi/L			LXP1	09/15/22	1025	2310752	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310792	84.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-511  
 Sample ID: 591358011  
 Matrix: WG  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-3.03	+/-0.946	2.33	+/-0.946	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.625	+/-0.995	2.33	+/-1.00		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.625	+/-0.309	0.315	+/-0.331	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	81.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

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 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51D  
 Sample ID: 591358012  
 Matrix: WG  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.51	+/-1.25	1.83	+/-1.40	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.33	+/-1.30	1.83	+/-1.45		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.823	+/-0.355	0.394	+/-0.385	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	82.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-611

Project: GPCC00101

Sample ID: 591358013

Client ID: GPCC001

Matrix: WG

Collect Date: 24-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.42	+/-1.20	1.73	+/-1.35	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.91	+/-1.24	1.73	+/-1.39		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.488	+/-0.331	0.468	+/-0.344	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	79.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-51S  
 Sample ID: 591358014  
 Matrix: WG  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.318	+/-0.956	1.72	+/-0.959	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.20	+/-1.02	1.72	+/-1.03		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.878	+/-0.354	0.360	+/-0.387	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	83.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FD-02  
 Sample ID: 591358015  
 Matrix: WG  
 Collect Date: 24-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.799	+/-1.14	1.96	+/-1.16	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.20	+/-1.17	1.96	+/-1.19		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.403	+/-0.250	0.297	+/-0.262	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	83.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



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## Certificate of Analysis

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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-50D  
 Sample ID: 591358016  
 Matrix: WG  
 Collect Date: 25-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.62	+/-1.12	1.75	+/-1.20	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.26	+/-1.17	1.75	+/-1.25		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.640	+/-0.343	0.439	+/-0.363	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	83.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-06

Project: GPCC00101

Sample ID: 591358017

Client ID: GPCC001

Matrix: WQ

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.47	+/-1.13	1.79	+/-1.19	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.76	+/-1.15	1.79	+/-1.21		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.286	+/-0.198	0.249	+/-0.206	1.00	pCi/L			LXP1	09/21/22	0740	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	78.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-62I

Project: GPCC00101

Sample ID: 591358018

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.21	+/-1.17	1.94	+/-1.21	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.88	+/-1.22	1.94	+/-1.26		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.674	+/-0.329	0.377	+/-0.347	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	80.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Company : Georgia Power Company, Southern  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-59I

Project: GPCC00101

Sample ID: 591358019

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.655	+/-1.10	1.91	+/-1.11	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.02	+/-1.13	1.91	+/-1.14		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.366	+/-0.253	0.347	+/-0.261	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	77.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-271  
 Sample ID: 591358020  
 Matrix: WG  
 Collect Date: 25-AUG-22  
 Receive Date: 29-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.30	+/-1.37	2.28	+/-1.41	3.00	pCi/L			JE1	09/20/22	1130	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.79	+/-1.39	2.28	+/-1.43		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.488	+/-0.278	0.312	+/-0.287	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	76.9	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-03  
Sample ID: 591358021  
Matrix: WQ  
Collect Date: 25-AUG-22  
Receive Date: 29-AUG-22  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0825	+/-1.17	2.15	+/-1.17	3.00	pCi/L			JE1	09/20/22	1131	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.0568	+/-1.19	2.15	+/-1.19		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.0568	+/-0.222	0.434	+/-0.223	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	85.1	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-63I

Project: GPCC00101

Sample ID: 591358022

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.634	+/-1.14	1.98	+/-1.15	3.00	pCi/L			JE1	09/20/22	1131	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.52	+/-1.20	1.98	+/-1.22		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.882	+/-0.373	0.423	+/-0.426	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	78.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: PZ-571

Project: GPCC00101

Sample ID: 591358023

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.378	+/-0.850	1.52	+/-0.855	3.00	pCi/L			JE1	09/20/22	1131	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.773	+/-0.888	1.52	+/-0.896		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.395	+/-0.260	0.336	+/-0.267	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	81	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-32S

Project: GPCC00101

Sample ID: 591358024

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.857	+/-1.07	1.82	+/-1.09	3.00	pCi/L			JE1	09/20/22	1131	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.32	+/-1.11	1.82	+/-1.13		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.462	+/-0.277	0.365	+/-0.299	1.00	pCi/L			LXP1	09/21/22	0812	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	81.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-07

Project: GPCC00101

Sample ID: 591358025

Client ID: GPCC001

Matrix: WQ

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0250	+/-0.735	1.43	+/-0.735	3.00	pCi/L			JE1	09/20/22	1131	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.238	+/-0.767	1.43	+/-0.768		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.238	+/-0.221	0.326	+/-0.225	1.00	pCi/L			LXP1	09/21/22	0844	2310764	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	79.7	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-52I

Project: GPCC00101

Sample ID: 591358026

Client ID: GPCC001

Matrix: WG

Collect Date: 25-AUG-22

Receive Date: 29-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.40	+/-1.40	2.01	+/-1.64	3.00	pCi/L			JE1	09/20/22	1131	2310793	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.97	+/-1.46	2.01	+/-1.71		pCi/L		1	NXL1	09/23/22	0954	2310791	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.57	+/-0.415	0.211	+/-0.481	1.00	pCi/L			LXP1	09/21/22	0844	2310764	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2310793	84.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-12I  
 Sample ID: 590856001  
 Matrix: WG  
 Collect Date: 23-AUG-22  
 Receive Date: 24-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0959	+/-1.26	2.34	+/-1.26	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.558	+/-1.30	2.34	+/-1.31		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.558	+/-0.321	0.415	+/-0.343	1.00	pCi/L			LXP1	09/16/22	0934	2309179	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	75	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- DF: Dilution Factor
- DL: Detection Limit
- Lc/LC: Critical Level
- MDA: Minimum Detectable Activity
- MDC: Minimum Detectable Concentration
- Mtd.: Method
- PF: Prep Factor
- RL: Reporting Limit
- TPU: Total Propagated Uncertainty

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: FB-01  
 Sample ID: 590856002  
 Matrix: WQ  
 Collect Date: 23-AUG-22  
 Receive Date: 24-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.28	+/-1.07	1.72	+/-1.12	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.60	+/-1.09	1.72	+/-1.13		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.320	+/-0.196	0.204	+/-0.206	1.00	pCi/L			LXP1	09/16/22	0934	2309179	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	90.9	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-12S

Project: GPCC00101

Sample ID: 590856003

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.33	+/-1.12	1.80	+/-1.17	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.69	+/-1.14	1.80	+/-1.19		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.360	+/-0.231	0.250	+/-0.237	1.00	pCi/L			LXP1	09/16/22	1006	2309179	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	77.8	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-251  
 Sample ID: 590856004  
 Matrix: WG  
 Collect Date: 23-AUG-22  
 Receive Date: 24-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-1.62	+/-1.14	2.35	+/-1.14	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.90	+/-1.22	2.35	+/-1.26		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.90	+/-0.454	0.210	+/-0.540	1.00	pCi/L			LXP1	09/16/22	1006	2309179	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	86.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWA-23S  
 Sample ID: 590851001  
 Matrix: WG  
 Collect Date: 23-AUG-22  
 Receive Date: 24-AUG-22  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-4.51	+/-0.901	2.59	+/-0.901	3.00	pCi/L			JXC9	09/16/22	1054	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.59	+/-1.02	2.59	+/-1.09		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.59	+/-0.476	0.392	+/-0.609	1.00	pCi/L			LXP1	09/16/22	0934	2309179	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	80.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- DF: Dilution Factor
- DL: Detection Limit
- Lc/LC: Critical Level
- MDA: Minimum Detectable Activity
- MDC: Minimum Detectable Concentration
- Mtd.: Method
- PF: Prep Factor
- RL: Reporting Limit
- TPU: Total Propagated Uncertainty



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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRGWC-47

Project: GPCC00101

Sample ID: 590851002

Client ID: GPCC001

Matrix: WG

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.45	+/-1.32	1.96	+/-1.45	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.74	+/-1.37	1.96	+/-1.51		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.29	+/-0.384	0.219	+/-0.427	1.00	pCi/L			LXP1	09/16/22	0934	2309179	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	80.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: EB-05

Project: GPCC00101

Sample ID: 590851003

Client ID: GPCC001

Matrix: WQ

Collect Date: 23-AUG-22

Receive Date: 24-AUG-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.747	+/-0.883	1.49	+/-0.903	3.00	pCi/L			JXC9	09/16/22	1055	2309177	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.11	+/-0.925	1.49	+/-0.946		pCi/L		1	NXL1	09/20/22	0955	2309181	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.367	+/-0.277	0.407	+/-0.283	1.00	pCi/L			LXP1	09/16/22	0934	2309179	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2309177	77.2	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## QC Summary

Report Date: December 7, 2022  
Page 1 of 3

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 591358

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2310792										
QC1205179815	591353001 DUP										
Radium-228	U	-2.32	U	0.746	pCi/L	0		N/A	JXC9	09/20/22	10:02
	Uncert:	+/-1.31		+/-1.05							
	TPU:	+/-1.31		+/-1.07							
QC1205179816	LCS										
Radium-228	44.1			40.7	pCi/L		92.4	(75%-125%)	JXC9	09/20/22	10:02
	Uncert:			+/-3.20							
	TPU:			+/-10.7							
QC1205179814	MB										
Radium-228			U	0.428	pCi/L				JXC9	09/20/22	10:02
	Uncert:			+/-0.992							
	TPU:			+/-0.998							
Batch	2310793										
QC1205179818	591358011 DUP										
Radium-228	U	-3.03	U	0.997	pCi/L	0		N/A	JE1	09/20/22	11:29
	Uncert:	+/-0.946		+/-0.944							
	TPU:	+/-0.946		+/-0.976							
QC1205179819	LCS										
Radium-228	43.9			44.7	pCi/L		102	(75%-125%)	JE1	09/20/22	11:30
	Uncert:			+/-3.35							
	TPU:			+/-11.7							
QC1205179817	MB										
Radium-228			U	0.278	pCi/L				JE1	09/20/22	11:29
	Uncert:			+/-1.23							
	TPU:			+/-1.24							
<b>Rad Ra-226</b>											
Batch	2310752										
QC1205179719	591353001 DUP										
Radium-226	U	0.152		0.436	pCi/L	96.4		(0% - 100%)	LXP1	09/15/22	10:25
	Uncert:	+/-0.211		+/-0.289							
	TPU:	+/-0.213		+/-0.297							
QC1205179721	LCS										
Radium-226	26.5			20.8	pCi/L		78.2	(75%-125%)	LXP1	09/15/22	10:25
	Uncert:			+/-1.40							
	TPU:			+/-4.47							
QC1205179718	MB										
Radium-226			U	0.312	pCi/L				LXP1	09/15/22	10:25
	Uncert:			+/-0.270							
	TPU:			+/-0.276							
QC1205179720	591353001 MS										
Radium-226	132	U	0.152	103	pCi/L		77.8	(75%-125%)	LXP1	09/15/22	10:25

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## QC Summary

Workorder: 591358

Page 2 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Ra-226</b>										
Batch	2310752									
		Uncert:	+/-0.211							+/-7.31
		TPU:	+/-0.213							+/-17.6
Batch	2310764									
QC1205179723	591358011 DUP									
Radium-226		0.625	0.629	pCi/L	.666		(0% - 100%)	LXP1	09/21/2208:44	
		Uncert:	+/-0.309							+/-0.307
		TPU:	+/-0.331							+/-0.326
QC1205179725	LCS									
Radium-226		26.6	20.1	pCi/L		75.6	(75%-125%)	LXP1	09/21/2208:44	
		Uncert:								+/-1.53
		TPU:								+/-3.83
QC1205179722	MB									
Radium-226			U	0.214	pCi/L			LXP1	09/21/2208:44	
		Uncert:								+/-0.261
		TPU:								+/-0.263
QC1205179724	591358011 MS									
Radium-226		132	0.625	117	pCi/L		87.8	(75%-125%)	LXP1	09/21/2208:44
		Uncert:	+/-0.309							+/-8.03
		TPU:	+/-0.331							+/-20.3

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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## QC Summary

Workorder: 591358

Page 3 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UJ		Gamma Spectroscopy--Uncertain identification								
UL		Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.								
X		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.								
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.								
h		Preparation or preservation holding time was exceeded								

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

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## QC Summary

Report Date: December 7, 2022  
Page 1 of 2

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 590856

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2309177										
QC1205176411	590840001 DUP										
Radium-228	U	0.281	U	0.509	pCi/L	0		N/A	JXC9	09/16/22	10:54
	Uncert:	+/-1.08		+/-0.796							
	TPU:	+/-1.08		+/-0.806							
QC1205176412	LCS										
Radium-228	44.1			39.6	pCi/L		89.9	(75%-125%)	JXC9	09/16/22	10:54
	Uncert:			+/-3.28							
	TPU:			+/-10.4							
QC1205176410	MB										
Radium-228			U	-0.160	pCi/L				JXC9	09/16/22	10:54
	Uncert:			+/-1.37							
	TPU:			+/-1.37							
<b>Rad Ra-226</b>											
Batch	2309179										
QC1205176418	590840001 DUP										
Radium-226	U	0.250	U	0.114	pCi/L	0		N/A	LXP1	09/16/22	10:41
	Uncert:	+/-0.237		+/-0.177							
	TPU:	+/-0.242		+/-0.178							
QC1205176420	LCS										
Radium-226	26.6			20.1	pCi/L		75.8	(75%-125%)	LXP1	09/16/22	10:41
	Uncert:			+/-1.38							
	TPU:			+/-4.51							
QC1205176417	MB										
Radium-226				0.319	pCi/L				LXP1	09/16/22	10:41
	Uncert:			+/-0.220							
	TPU:			+/-0.227							
QC1205176419	590840001 MS										
Radium-226	132 U	0.250		103	pCi/L		78	(75%-125%)	LXP1	09/16/22	10:41
	Uncert:	+/-0.237		+/-7.73							
	TPU:	+/-0.242		+/-17.8							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 590856

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J		See case narrative for an explanation								
J		Value is estimated								
K		Analyte present. Reported value may be biased high. Actual value is expected to be lower.								
L		Analyte present. Reported value may be biased low. Actual value is expected to be higher.								
M		M if above MDC and less than LLD								
M		REMP Result > MDC/CL and < RDL								
N/A		RPD or %Recovery limits do not apply.								
N1		See case narrative								
ND		Analyte concentration is not detected above the detection limit								
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
Q		One or more quality control criteria have not been met. Refer to the applicable narrative or DER.								
R		Sample results are rejected								
U		Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.								
UI		Gamma Spectroscopy--Uncertain identification								
UJ		Gamma Spectroscopy--Uncertain identification								
UL		Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.								
X		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.								
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.								
h		Preparation or preservation holding time was exceeded								

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

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## QC Summary

Report Date: December 7, 2022  
Page 1 of 2

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 590851

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2309177										
QC1205176411	590840001 DUP										
Radium-228	U	0.281	U	0.509	pCi/L	0		N/A	JXC9	09/16/22	10:54
	Uncert:	+/-1.08		+/-0.796							
	TPU:	+/-1.08		+/-0.806							
QC1205176412	LCS										
Radium-228	44.1			39.6	pCi/L		89.9	(75%-125%)	JXC9	09/16/22	10:54
	Uncert:			+/-3.28							
	TPU:			+/-10.4							
QC1205176410	MB										
Radium-228			U	-0.160	pCi/L				JXC9	09/16/22	10:54
	Uncert:			+/-1.37							
	TPU:			+/-1.37							
<b>Rad Ra-226</b>											
Batch	2309179										
QC1205176418	590840001 DUP										
Radium-226	U	0.250	U	0.114	pCi/L	0		N/A	LXP1	09/16/22	10:41
	Uncert:	+/-0.237		+/-0.177							
	TPU:	+/-0.242		+/-0.178							
QC1205176420	LCS										
Radium-226	26.6			20.1	pCi/L		75.8	(75%-125%)	LXP1	09/16/22	10:41
	Uncert:			+/-1.38							
	TPU:			+/-4.51							
QC1205176417	MB										
Radium-226				0.319	pCi/L				LXP1	09/16/22	10:41
	Uncert:			+/-0.220							
	TPU:			+/-0.227							
QC1205176419	590840001 MS										
Radium-226	132 U	0.250		103	pCi/L		78	(75%-125%)	LXP1	09/16/22	10:41
	Uncert:	+/-0.237		+/-7.73							
	TPU:	+/-0.242		+/-17.8							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

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- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
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- H Analytical holding time was exceeded



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 590851

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J										
J										
K										
L										
M										
M										
N/A										
N1										
ND										
NJ										
Q										
R										
U										
UI										
UJ										
UL										
X										
Y										
^										
h										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 591358**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2310789

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591358001	FD-01
591358002	PZ-58I
591358003	PZ-60I
591358004	FB-02
591358005	BRGWC-29I
591358006	BRGWC-30I
591358007	BRGWC-50
591358008	FD-03
591358009	BRGWC-45
591358010	PZ-44

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2310791

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591358011	PZ-51I
591358012	PZ-51D
591358013	PZ-61I
591358014	PZ-51S
591358015	FD-02
591358016	PZ-50D
591358017	EB-06
591358018	PZ-62I
591358019	PZ-59I
591358020	BRGWC-27I

591358021	FB-03
591358022	PZ-63I
591358023	PZ-57I
591358024	BRGWC-32S
591358025	EB-07
591358026	BRGWC-52I

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2310792

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591358001	FD-01
591358002	PZ-58I
591358003	PZ-60I
591358004	FB-02
591358005	BRGWC-29I
591358006	BRGWC-30I
591358007	BRGWC-50
591358008	FD-03
591358009	BRGWC-45
591358010	PZ-44
1205179814	Method Blank (MB)
1205179815	591353001(BRGWC-17S) Sample Duplicate (DUP)
1205179816	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2310793

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591358011	PZ-51I
591358012	PZ-51D
591358013	PZ-61I
591358014	PZ-51S
591358015	FD-02
591358016	PZ-50D
591358017	EB-06
591358018	PZ-62I
591358019	PZ-59I
591358020	BRGWC-27I
591358021	FB-03
591358022	PZ-63I
591358023	PZ-57I
591358024	BRGWC-32S
591358025	EB-07
591358026	BRGWC-52I
1205179817	Method Blank (MB)
1205179818	591358011(PZ-51I) Sample Duplicate (DUP)
1205179819	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Negative > 3 sigma TPU**

Sample result was more negative than the three sigma TPU. The background control chart was examined and the detector was determined to be fully functional.

Sample	Analyte	Value
591358011 (PZ-51I)	Radium-228	Negative Result > 3 sigma value

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2310752

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591358001	FD-01

591358002	PZ-58I
591358003	PZ-60I
591358004	FB-02
591358005	BRGWC-29I
591358006	BRGWC-30I
591358007	BRGWC-50
591358008	FD-03
591358009	BRGWC-45
591358010	PZ-44
1205179718	Method Blank (MB)
1205179719	591353001(BRGWC-17S) Sample Duplicate (DUP)
1205179720	591353001(BRGWC-17S) Matrix Spike (MS)
1205179721	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Recounts**

Samples were degassed and recounted to verify sample results. The second counts are reported.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205179720 (BRGWC-17SMS), aliquot was reduced to conserve sample volume.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2310764

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
591358011	PZ-51I
591358012	PZ-51D
591358013	PZ-61I
591358014	PZ-51S
591358015	FD-02
591358016	PZ-50D
591358017	EB-06
591358018	PZ-62I
591358019	PZ-59I
591358020	BRGWC-27I
591358021	FB-03
591358022	PZ-63I

591358023	PZ-57I
591358024	BRGWC-32S
591358025	EB-07
591358026	BRGWC-52I
1205179722	Method Blank (MB)
1205179723	591358011(PZ-51I) Sample Duplicate (DUP)
1205179724	591358011(PZ-51I) Matrix Spike (MS)
1205179725	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205179724 (PZ-51IMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 590856**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2309181

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590856001	BRGWA-12I
590856002	FB-01
590856003	BRGWA-12S
590856004	BRGWC-25I

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2309177

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590856001	BRGWA-12I
590856002	FB-01
590856003	BRGWA-12S
590856004	BRGWC-25I
1205176410	Method Blank (MB)
1205176411	590840001(BRGWA-2S) Sample Duplicate (DUP)
1205176412	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2309179

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590856001	BRGWA-12I
590856002	FB-01
590856003	BRGWA-12S
590856004	BRGWC-25I
1205176417	Method Blank (MB)
1205176418	590840001(BRGWA-2S) Sample Duplicate (DUP)
1205176419	590840001(BRGWA-2S) Matrix Spike (MS)
1205176420	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205176417 (MB)	Radium-226	Result: 0.319 pCi/L > MDA: 0.278 pCi/L <= RDL: 1.00 pCi/L

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205176419 (BRGWA-2SMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 590851**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2309181

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590851001	BRGWA-23S
590851002	BRGWC-47
590851003	EB-05

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2309177

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590851001	BRGWA-23S
590851002	BRGWC-47
590851003	EB-05
1205176410	Method Blank (MB)
1205176411	590840001(BRGWA-2S) Sample Duplicate (DUP)
1205176412	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Negative > 3 sigma TPU**

Sample result was more negative than the three sigma TPU. The background control chart was examined and the detector was determined to be fully functional.

Sample	Analyte	Value
590851001 (BRGWA-23S)	Radium-228	Negative Result > 3 sigma value

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2309179

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
590851001	BRGWA-23S
590851002	BRGWC-47
590851003	EB-05
1205176417	Method Blank (MB)
1205176418	590840001(BRGWA-2S) Sample Duplicate (DUP)
1205176419	590840001(BRGWA-2S) Matrix Spike (MS)
1205176420	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205176417 (MB)	Radium-226	Result: 0.319 pCi/L > MDA: 0.278 pCi/L <= RDL: 1.00 pCi/L

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205176419 (BRGWA-2SMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: *Erin Trent*

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds ~ BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: *Jordan Bonstorf* \* Send Results To: SCS & Geosyntec Contacts  
*Anna Schwab*

Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (hh:mm)	QC Code (3)	Field Filtered (4)	Sample Matrix (4)	Radioactive (if yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
FD-01	08/24/22	—	G	N	WG			7	EPA 300, SM 2540C SM 2320B Total & Breath Air EPA 6020B, 6010D Metals *		field pH = NA field pH = 3.81 field pH = 4.55 field pH = N/A field pH = 4.39 field pH = 6.38 field pH = 5.07 field pH = N/A field pH = 5.74 field pH = 6.06
PZ-58I	08/24/22	1030	G	N	WG			7			
PZ-60I	08/24/22	1220	G	N	WG			7			
FB-02	08/24/22	1555	G	N	WG			7			
BR6WC-29I	08/24/22	1710	G	N	WG			7			
BR6WC-30I	08/24/22	1609	G	N	WG			7			
BR6WC-50	08/24/22	1451	G	N	WG			7			
FD-03	08/25/22	—	G	N	WG			7			
BR6WC-45	08/25/22	1010	G	N	WG			7			
PZ-44	08/25/22	1131	G	N	WG			7			

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	8/29/22	1515	<i>[Signature]</i>	8/29/22	1515

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No  
 Select Deliverable:  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_  
 Other: OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)





**Laboratories LLC**  
Chemistry | Radiochemistry | Radioassay | Specialty Analytics

GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
Phone: (843) 556-8171  
Fax: (843) 766-1178

**Chain of Custody and Analytical Request**

**GEL Work Order Number:** *404-506-7116* **GEL Project Manager:** *Erin Trent*

Client Name: GA Power  
Project/Site Name: Plant Branch Ash Ponds *BCD*  
Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
Phone #: 404-506-7116  
Fax #: *BCD*

Collected By: *Hunter Auld + Angie Schnitzler* Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (hh:mm)	QC Code (e)	Field Filtered (d)	Sample Matrix (e)	Radiactive (f) Yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (g) (Fill in the number of containers for each test)	Preservative Type (h)	Comments
<i>PZ-51I</i>	<i>08/24/22</i>	<i>1234</i>	<i>G</i>	<i>N</i>	<i>WG</i>		<input checked="" type="checkbox"/> (7) Known or possible Hazards	<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cl, F, SO4, TDS <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		Note: extra sample is required for sample specific QC
<i>PZ-51D</i>	<i>08/24/22</i>	<i>1049</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>5.49</i>
<i>PZ-60I</i>	<i>08/24/22</i>	<i>1402</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>7.15</i> <i>7.15</i>
<i>PZ-51S</i>	<i>08/24/22</i>	<i>1609</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>5.14</i>
<i>FD-0Z</i>	<i>08/24/22</i>	<i>---</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>6.12</i>
<i>PZ-50D</i>	<i>08/25/22</i>	<i>0951</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>6.11</i>
<i>EB-06</i>	<i>08/25/22</i>	<i>0942</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>---</i>
<i>PZ-60I</i>	<i>08/25/22</i>	<i>1121</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>5.50</i>
<i>PZ-59I</i>	<i>08/25/22</i>	<i>1316</i>	<i>G</i>	<i>N</i>	<i>WG</i>			<i>7</i>	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Total & Bicarb Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> Metals *		field pH = <i>3.72</i>

Chain of Custody Signatures  
Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
1. *[Signature]* *8/24/22 1515* *[Signature]* *8/24/22 1515*  
2. \_\_\_\_\_  
3. \_\_\_\_\_

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)  
Fax Results:  Yes  No  
Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
Additional Remarks: \* Metals: B,Ca,Sb,As,Pa,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg  
For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS
 

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Work Order Number:** \_\_\_\_\_  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds B/C/D  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *Taylor Coble / Anna Schmittke* Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	OC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioreactive (If Yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	EPA 300, SM 2540C Cl, F, SO4, TDS	Total & Biocarb Alk SM 2320B	EPA 6020B, 6010D Metals *	Radium 226 & 228 SW-846 9315, 9320	Preservative Type (6)	Comments
BRGWC-27I	08/25/22	1012	G	N	WG		(7) Known or possible Hazards	7	✓	✓	✓	✓	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC
FB-03	08/25/22	1045	G	N	WG			7	✓	✓	✓	✓	field pH = 6.03	
PZ-63I	08/25/22	1220	G	N	WG			7	✓	✓	✓	✓	field pH = 5.65	
PZ-57I	08/25/22	1055	G	N	WG			7	✓	✓	✓	✓	field pH = 5.91	
BRGWC-325	08/25/22	1235	G	N	WG			7	✓	✓	✓	✓	field pH = 6.06	
EB-07	08/25/22	1245	G	N	WG			7	✓	✓	✓	✓	field pH = 6.21	
BRGWC-52I	08/25/22	1255	G	N	WG			7	✓	✓	✓	✓	field pH = 6.21	

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date 8/29/22 1515 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

2. \_\_\_\_\_ 8/29/22 1515 \_\_\_\_\_  
 3. \_\_\_\_\_

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FB = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

**RCRA Metals**  
 As = Arsenic Hg= Mercury  
 Ba = Barium Se= Selenium  
 Cd = Cadmium Ag= Silver  
 Cr = Chromium MR= Misc. RCRA metals  
 Pb = Lead

**Characteristic Hazards**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

**Listed Waste**  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls

**Other**  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>CPCC</u>		SDG/AR/COC/Work Order: <u>591355</u>		<u>ET</u>	
Received By: <u>Thyasia Tatum</u>		Date Received: <u>8/29/20</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier <u>Other</u>			
Suspected Hazard Information		Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1    Rad 2    Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below: PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other: _____	
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs    Dry ice    None    Other: *all temperatures recorded in Celsius    TEMP: <u>1C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials AM    Date 8/31/20    Page 1 of 7



590855, 590856

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
**Chain of Custody and Analytical Request**

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_ **GEL Project Manager:** Erin Trent

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Collected By: Hunter Auld

Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (If yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRGWA-12I	08/23/22	1143	G	N	WG		(7) Known or possible Hazards	7	NI		Note: extra sample is required for sample specific QC
FB-01	08/23/22	1315	G	N	WQ			7	NI		field pH = 6.39
BRGWA-12S	08/23/22	1338	G	N	WG			7	NI		field pH = NA
BRGWL-25I	08/23/22	1541	G	N	WG			7	NI		field pH = 5.90
											field pH = 6.11
											field pH =
											field pH =
											field pH =
											field pH =
											field pH =
											field pH =

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	8/24/22	<u>[Signature]</u>	8/24/22	1:27
<u>[Signature]</u>	8/24/22	<u>[Signature]</u>	8/24/22	1:27
<u>[Signature]</u>	8/24/22	<u>[Signature]</u>	8/24/22	1:27

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Lachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

KNOWN OR POSSIBLE HAZARDS	Characteristic Hazards	Listed Waste	Other
RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

590851, 590855, 590856, 590857, 590858

Client: <u>GPOC</u>		SDG/AR/COC/Work Order: <u>590838, 590840, 590845</u>			
Received By: <u>Thyasia Tatum</u>		Date Received: <u>8/24/22</u>			
Carrier and Tracking Number		Circle Applicable: <input type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Other			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>Φ</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. <input type="checkbox"/> PCB's <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium <input type="checkbox"/> Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>2°C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials \_\_\_\_\_ Date \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

590845, 590851

Page: \_\_\_\_\_ of \_\_\_\_\_

Project # \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number (1): \_\_\_\_\_

PO Number: \_\_\_\_\_

Client Name: GA Power

Project/Site Name: Plant Branch Ash Ponds

Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *Jordan Perinford*

Send Results To: SCS & Geosyntec Contacts

GEL Work Order Number: \_\_\_\_\_

Phone # 404-506-7116

Fax # \_\_\_\_\_

GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
Phone: (843) 556-8171  
Fax: (843) 766-1178

Chemistry | Radiochemistry | Radiobiassay | Specialty Analytics  
Chain of Custody and Analytical Request  
GEL Project Manager: Erin Trent

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (3)	Field Filtered (2)	Sample Matrix (4)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)		Comments
						Radioactive (if yes, please supply isotopic info)	(7) Known or possible Hazards	NI	IN	
BR6WA-255	08/25/22	1345	G	N	WG			7	7	field pH = 5.66
BR6WC-47	08/23/22	1520	G	N	WG			7	7	field pH = 5.61
EB-05	08/23/22	1455	G	N	WQ			7	7	field pH = N/A
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	8/24/22	0845	<i>[Signature]</i>	8/24/22	0845
<i>[Signature]</i>	10/2/22	1327	<i>[Signature]</i>	8/24/22	1327

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____
Hg = Mercury Se = Selenium Ag = Silver MR = Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

590851, 590855,  
ET 590856  
590857  
590858

Client: GPCC

SDG/AR/COC/Work Order: 590838, 590840, 590845,

Received By: Thyasia Tatum

Date Received: 8/24/22

Carrier and Tracking Number

Circle Applicable:  
FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information  Yes  No \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?  Yes  No Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples are to be received as radioactive?  Yes  No COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?  Yes  No Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 CPM / mR/hr  
Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous?  Yes  No COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?  Yes  No If D or E is yes, select Hazards below.  
PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <b>TEMP: 2°C</b>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

**List of current GEL Certifications as of 07 December 2022**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

October 26, 2022

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APB  
Work Order: 596812

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 13, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0003  
Enclosures





**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 596812 GEL Work Order: 596812

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 26, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-64I	Project: GPCC00101
Sample ID: 596812001	Client ID: GPCC001
Matrix: WG	
Collect Date: 12-OCT-22 10:00	
Receive Date: 13-OCT-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.53			SU			EOS1	10/12/22	1000	2328940	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0781	0.0330	0.100	mg/L		1	HXC1	10/19/22	1619	2331124	2
Chloride		55.3	13.4	40.0	mg/L		200	HXC1	10/20/22	0845	2331124	3
Sulfate		2440	26.6	80.0	mg/L		200					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/17/22	1007	2329101	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	10/17/22	2136	2328994	5
Arsenic		0.00896	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0543	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.000600	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0181	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000432	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.6	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0171	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Iron		1.98	0.0330	0.100	mg/L	1.00	1	SKJ	10/18/22	2307	2328994	6
Manganese		399	0.500	2.50	mg/L	1.00	500	SKJ	10/18/22	2223	2328994	7
Calcium		320	0.800	2.00	mg/L	1.00	10	SKJ	10/18/22	2243	2328994	8
Cobalt		9.05	0.00300	0.0100	mg/L	1.00	10					
Sodium		61.7	0.800	2.50	mg/L	1.00	10					
Boron		0.0152	0.00520	0.0150	mg/L	1.00	1	SKJ	10/20/22	0830	2328994	9
Magnesium		254	0.100	0.300	mg/L	1.00	10	SKJ	10/21/22	1031	2328994	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3780	2.38	10.0	mg/L			CH6	10/14/22	1445	2329094	11
<b>Titration and Ion Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 26, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-64I Project: GPCC00101  
Sample ID: 596812001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		48.0	1.45	4.00	mg/L			VH1	10/25/22	1724	2330275	12
Bicarbonate alkalinity (CaCO <sub>3</sub> )		48.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	10/14/22	0950	2328993
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	10/14/22	1140	2329100

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: October 26, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-65I	Project: GPCC00101
Sample ID: 596812002	Client ID: GPCC001
Matrix: WG	
Collect Date: 11-OCT-22 14:30	
Receive Date: 13-OCT-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.16			SU			EOS1	10/11/22	1430	2328940	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		1.51	0.0330	0.100	mg/L		1	HXC1	10/19/22	1649	2331124	2
Chloride		48.7	13.4	40.0	mg/L		200	HXC1	10/20/22	0915	2331124	3
Sulfate		2520	26.6	80.0	mg/L		200					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	J	0.0000880	0.0000670	0.000200	mg/L	1.00	1	JP2	10/17/22	1012	2329101	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	10/17/22	2153	2328994	5
Arsenic		0.0201	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0260	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0159	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000606	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00405	0.00300	0.0100	mg/L	1.00	1					
Lead	J	0.00132	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.102	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.1	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0377	0.00150	0.00500	mg/L	1.00	1					
Thallium	J	0.00139	0.000600	0.00200	mg/L	1.00	1					
Manganese		37.1	0.100	0.500	mg/L	1.00	100	SKJ	10/18/22	2233	2328994	6
Calcium		230	0.800	2.00	mg/L	1.00	10	SKJ	10/18/22	2252	2328994	7
Iron		445	0.330	1.00	mg/L	1.00	10					
Sodium		81.3	0.800	2.50	mg/L	1.00	10					
Cobalt		0.481	0.00150	0.00500	mg/L	1.00	5	SKJ	10/18/22	2257	2328994	8
Boron		0.0299	0.00520	0.0150	mg/L	1.00	1	SKJ	10/20/22	0840	2328994	9
Magnesium		185	0.100	0.300	mg/L	1.00	10	SKJ	10/21/22	1039	2328994	10
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3790	2.38	10.0	mg/L			CH6	10/14/22	1445	2329094	11
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 26, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-65I Project: GPCC00101  
Sample ID: 596812002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			VH1	10/25/22	1725	2330275	12
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	10/14/22	0950	2328993
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	10/14/22	1140	2329100

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 2320B	

### Notes:

#### Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: October 26, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-66I	Project: GPCC00101
Sample ID: 596812003	Client ID: GPCC001
Matrix: WG	
Collect Date: 11-OCT-22 14:20	
Receive Date: 13-OCT-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.81			SU			EOS1	10/11/22	1420	2328940	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0601	0.0330	0.100	mg/L		1	HXC1	10/19/22	1719	2331124	2
Sulfate		1770	26.6	80.0	mg/L		200	HXC1	10/20/22	1315	2331124	3
Chloride		10.8	0.670	2.00	mg/L		10	HXC1	10/20/22	1345	2331124	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/17/22	1014	2329101	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	10/17/22	2157	2328994	6
Arsenic	J	0.00489	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0597	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0193	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000918	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.0	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00393	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		107	0.500	2.50	mg/L	1.00	500	SKJ	10/19/22	1326	2328994	7
Calcium		200	0.800	2.00	mg/L	1.00	10	SKJ	10/18/22	2255	2328994	8
Sodium		55.6	0.800	2.50	mg/L	1.00	10					
Cobalt		0.364	0.00150	0.00500	mg/L	1.00	5	SKJ	10/18/22	2300	2328994	9
Iron		25.0	0.165	0.500	mg/L	1.00	5					
Boron		0.115	0.00520	0.0150	mg/L	1.00	1	SKJ	10/20/22	0842	2328994	10
Magnesium		285	0.100	0.300	mg/L	1.00	10	SKJ	10/21/22	1041	2328994	11
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2800	2.38	10.0	mg/L			CH6	10/14/22	1445	2329094	12
<b>Titration and Ion Analysis</b>												

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## Certificate of Analysis

Report Date: October 26, 2022

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-66I Project: GPCC00101  
Sample ID: 596812003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		68.0	1.45	4.00	mg/L			VH1	10/25/22	1727	2330275	13
Bicarbonate alkalinity (CaCO <sub>3</sub> )		68.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	10/14/22	0950	2328993
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	10/14/22	1140	2329100

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SM 2540C	
13	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## QC Summary

Report Date: October 26, 2022

Page 1 of 10

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 596812

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2331124										
QC1205221481	595549002	DUP									
Chloride		38.1		38.5	mg/L	0.81 ^		(+/-20.0)	HXC1	10/20/22	06:16
Fluoride	J	0.453	J	0.491	mg/L	7.95 ^		(+/-0.500)		10/20/22	12:15
Sulfate		1180		1190	mg/L	0.695		(0%-20%)		10/20/22	06:16
QC1205221480	LCS										
Chloride	5.00			4.65	mg/L		92.9	(90%-110%)		10/20/22	01:17
Fluoride	2.50			2.46	mg/L		98.3	(90%-110%)			
Sulfate	10.0			9.41	mg/L		94.1	(90%-110%)			
QC1205221479	MB										
Chloride			U	ND	mg/L					10/20/22	00:47
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205221484	595549002	PS									
Chloride	5.00	0.381		5.03	mg/L		93	(90%-110%)		10/20/22	06:45
Fluoride	2.50	J 0.0906		2.59	mg/L		99.9	(90%-110%)		10/20/22	12:45
Sulfate	10.0	11.8		22.1	mg/L		103	(90%-110%)		10/20/22	06:45

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## QC Summary

Workorder: 596812

Page 2 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
QC1205216844	LCS										
Antimony	0.0500			0.0495	mg/L		99	(80%-120%)	SKJ	10/17/22	21:33
Arsenic	0.0500			0.0499	mg/L		99.8	(80%-120%)			
Barium	0.0500			0.0491	mg/L		98.3	(80%-120%)			
Beryllium	0.0500			0.0575	mg/L		115	(80%-120%)			
Boron	0.100			0.119	mg/L		119	(80%-120%)		10/20/22	08:28
Cadmium	0.0500			0.0511	mg/L		102	(80%-120%)		10/17/22	21:33
Calcium	2.00			2.14	mg/L		107	(80%-120%)		10/18/22	22:21
Chromium	0.0500			0.0497	mg/L		99.3	(80%-120%)		10/17/22	21:33
Cobalt	0.0500			0.0513	mg/L		103	(80%-120%)		10/18/22	22:21
Iron	2.00			2.03	mg/L		101	(80%-120%)			
Lead	0.0500			0.0500	mg/L		99.9	(80%-120%)		10/17/22	21:33
Lithium	0.0500			0.0551	mg/L		110	(80%-120%)			
Magnesium	2.00			2.38	mg/L		119	(80%-120%)		10/21/22	10:29
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		10/18/22	22:21
Molybdenum	0.0500			0.0521	mg/L		104	(80%-120%)		10/17/22	21:33

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## QC Summary

Workorder: 596812

Page 3 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
Potassium	2.00			2.19	mg/L		109	(80%-120%)	SKJ	10/17/22	21:33
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.18	mg/L		109	(80%-120%)		10/18/22	22:21
Thallium	0.0500			0.0489	mg/L		97.8	(80%-120%)		10/17/22	21:33
QC1205216843	MB										
Antimony			U	ND	mg/L					10/17/22	21:30
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					10/20/22	08:26
Cadmium			U	ND	mg/L					10/17/22	21:30
Calcium			U	ND	mg/L					10/18/22	22:19
Chromium			U	ND	mg/L					10/17/22	21:30
Cobalt			U	ND	mg/L					10/18/22	22:19
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					10/17/22	21:30

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## QC Summary

Workorder: 596812

Page 4 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
Lithium			U	ND	mg/L				SKJ	10/17/22	21:30
Magnesium			U	ND	mg/L					10/21/22	10:27
Manganese			U	ND	mg/L					10/18/22	22:19
Molybdenum			U	ND	mg/L					10/17/22	21:30
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L					10/18/22	22:19
Thallium			U	ND	mg/L					10/17/22	21:30
QC1205216845 596812001 MS											
Antimony	0.0500	U	ND	0.0451	mg/L		89.9	(75%-125%)		10/17/22	21:40
Arsenic	0.0500		0.00896	0.0572	mg/L		96.5	(75%-125%)			
Barium	0.0500		0.0543	0.102	mg/L		96.1	(75%-125%)			
Beryllium	0.0500		0.000600	0.0509	mg/L		101	(75%-125%)			
Boron	0.100		0.0152	0.124	mg/L		109	(75%-125%)		10/20/22	08:32
Cadmium	0.0500	U	ND	0.0440	mg/L		87.7	(75%-125%)		10/17/22	21:40
Calcium	2.00		320	323	mg/L		N/A	(75%-125%)		10/18/22	22:45



# GEL LABORATORIES LLC

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## QC Summary

Workorder: **596812**

Page 5 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
Chromium	0.0500	U	ND	0.0480	mg/L		95.2	(75%-125%)	SKJ	10/17/22	21:40
Cobalt	0.0500		9.05	8.97	mg/L		N/A	(75%-125%)		10/18/22	22:45
Iron	2.00		1.98	3.93	mg/L		97.5	(75%-125%)		10/18/22	23:09
Lead	0.0500	U	ND	0.0427	mg/L		85.2	(75%-125%)		10/17/22	21:40
Lithium	0.0500		0.0181	0.0747	mg/L		113	(75%-125%)			
Magnesium	2.00		254	257	mg/L		N/A	(75%-125%)		10/21/22	10:33
Manganese	0.0500		399	388	mg/L		N/A	(75%-125%)		10/18/22	22:26
Molybdenum	0.0500	J	0.000432	0.0543	mg/L		108	(75%-125%)		10/17/22	21:40
Potassium	2.00		14.6	16.4	mg/L		N/A	(75%-125%)			
Selenium	0.0500		0.0171	0.0669	mg/L		99.6	(75%-125%)			
Sodium	2.00		61.7	63.0	mg/L		N/A	(75%-125%)		10/18/22	22:45
Thallium	0.0500	U	ND	0.0445	mg/L		88.9	(75%-125%)		10/17/22	21:40
QC1205216846 596812001 MSD											
Antimony	0.0500	U	ND	0.0465	mg/L	2.98	92.7	(0%-20%)		10/17/22	21:43
Arsenic	0.0500		0.00896	0.0573	mg/L	0.192	96.7	(0%-20%)			
Barium	0.0500		0.0543	0.102	mg/L	0.199	95.7	(0%-20%)			

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## QC Summary

Workorder: 596812

Page 6 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
Beryllium	0.0500	0.000600		0.0511	mg/L	0.437	101	(0%-20%)	SKJ	10/17/22	21:43
Boron	0.100	0.0152		0.124	mg/L	0.0655	108	(0%-20%)		10/20/22	08:34
Cadmium	0.0500	U	ND	0.0451	mg/L	2.46	89.9	(0%-20%)		10/17/22	21:43
Calcium	2.00		320	309	mg/L	4.19	N/A	(0%-20%)		10/18/22	22:47
Chromium	0.0500	U	ND	0.0483	mg/L	0.725	95.9	(0%-20%)		10/17/22	21:43
Cobalt	0.0500		9.05	8.81	mg/L	1.88	N/A	(0%-20%)		10/18/22	22:47
Iron	2.00		1.98	3.90	mg/L	0.853	95.8	(0%-20%)		10/18/22	23:12
Lead	0.0500	U	ND	0.0426	mg/L	0.0961	85.1	(0%-20%)		10/17/22	21:43
Lithium	0.0500		0.0181	0.0752	mg/L	0.663	114	(0%-20%)			
Magnesium	2.00		254	247	mg/L	3.96	N/A	(0%-20%)		10/21/22	10:35
Manganese	0.0500		399	379	mg/L	2.41	N/A	(0%-20%)		10/18/22	22:28
Molybdenum	0.0500	J	0.000432	0.0554	mg/L	2.13	110	(0%-20%)		10/17/22	21:43
Potassium	2.00		14.6	16.5	mg/L	0.274	N/A	(0%-20%)			
Selenium	0.0500		0.0171	0.0664	mg/L	0.617	98.8	(0%-20%)			
Sodium	2.00		61.7	62.2	mg/L	1.26	N/A	(0%-20%)		10/18/22	22:47

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## QC Summary

Workorder: 596812

Page 7 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
Thallium	0.0500	U	ND	0.0438	mg/L	1.44	87.6	(0%-20%)	SKJ	10/17/22	21:43
QC1205216847 596812001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		10/17/22	21:50
Arsenic			8.96	U	ND	ug/L	N/A	(0%-20%)			
Barium			54.3		10.6	ug/L	1.98	(0%-20%)			
Beryllium			0.600	U	ND	ug/L	N/A	(0%-20%)			
Boron			15.2	J	5.22	ug/L	71.3	(0%-20%)		10/20/22	08:38
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		10/17/22	21:50
Calcium			32000		6490	ug/L	1.27	(0%-20%)		10/18/22	22:50
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		10/17/22	21:50
Cobalt			905		180	ug/L	.319	(0%-20%)		10/18/22	22:50
Iron			1980		413	ug/L	4.16	(0%-20%)		10/18/22	23:16
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)		10/17/22	21:50
Lithium			18.1	J	3.45	ug/L	4.53	(0%-20%)			
Magnesium			25400		5060	ug/L	.174	(0%-20%)		10/21/22	10:37
Manganese			799		158	ug/L	1.06	(0%-20%)		10/18/22	22:31

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## QC Summary

Workorder: **596812**

Page 8 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2328994										
Molybdenum	J	0.432	U	ND	ug/L	N/A		(0%-20%)	SKJ	10/17/22	21:50
Potassium		14600		2870	ug/L	1.65		(0%-20%)			
Selenium		17.1	J	4.03	ug/L	17.9		(0%-20%)			
Sodium		6170		1240	ug/L	.35		(0%-20%)		10/18/22	22:50
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		10/17/22	21:50
<b>Metals Analysis-Mercury</b>											
Batch	2329101										
QC1205217057	595440001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	10/17/22	09:32
QC1205217056	LCS										
Mercury	0.00200			0.00217	mg/L		109	(80%-120%)		10/17/22	09:25
QC1205217055	MB										
Mercury			U	ND	mg/L					10/17/22	09:23
QC1205217058	595440001	MS									
Mercury	0.00200	U	ND	0.00228	mg/L		114	(75%-125%)		10/17/22	09:34
QC1205217059	595440001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		10/17/22	09:35
<b>Solids Analysis</b>											
Batch	2329094										
QC1205217039	596535001	DUP									
Total Dissolved Solids		229		221	mg/L	3.56		(0%-5%)	CH6	10/14/22	14:45

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: **596812**

Page 9 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2329094										
QC1205217037	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)	CH6	10/14/22	14:45
QC1205217036	MB										
Total Dissolved Solids			U	ND	mg/L					10/14/22	14:45
<b>Titration and Ion Analysis</b>											
Batch	2330275										
QC1205219646	596535001 DUP										
Alkalinity, Total as CaCO3		162		162	mg/L	0.247		(0%-20%)	VH1	10/25/22	16:54
Bicarbonate alkalinity (CaCO3)		162		162	mg/L	0.247		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205219645	LCS										
Alkalinity, Total as CaCO3	100			106	mg/L		106	(90%-110%)		10/25/22	16:54
QC1205219647	596535001 MS										
Alkalinity, Total as CaCO3	100	162		260	mg/L		98.2	(80%-120%)		10/25/22	17:01

**Notes:**

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 596812

Page 10 of 10

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N1											
ND											
NJ											
Q											
R											
R											
U											
X											
Y											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 596812**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2328994

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2328993

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
596812001	PZ-64I
596812002	PZ-65I
596812003	PZ-66I
1205216843	Method Blank (MB)ICP-MS
1205216844	Laboratory Control Sample (LCS)
1205216847	596812001(PZ-64IL) Serial Dilution (SD)
1205216845	596812001(PZ-64IS) Matrix Spike (MS)
1205216846	596812001(PZ-64ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020A/6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected.

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 596812001 (PZ-64I), 596812002

(PZ-65I) and 596812003 (PZ-66I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	596812		
	001	002	003
Calcium	10X	10X	10X
Cobalt	10X	5X	5X
Iron	1X	10X	5X
Magnesium	10X	10X	10X
Manganese	500X	100X	500X
Sodium	10X	10X	10X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 38

**Analytical Batch:** 2329101

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 38

**Preparation Batch:** 2329100

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
596812001	PZ-64I
596812002	PZ-65I
596812003	PZ-66I
1205217055	Method Blank (MB)CVAA
1205217056	Laboratory Control Sample (LCS)
1205217059	595440001(NonSDGL) Serial Dilution (SD)
1205217057	595440001(NonSDGD) Sample Duplicate (DUP)
1205217058	595440001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2331124



The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
596812001	PZ-64I
596812002	PZ-65I
596812003	PZ-66I
1205221479	Method Blank (MB)
1205221480	Laboratory Control Sample (LCS)
1205221481	595549002(NonSDG) Sample Duplicate (DUP)
1205221484	595549002(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205221481 (Non SDG 595549002DUP), 1205221484 (Non SDG 595549002PS), 596812001 (PZ-64I), 596812002 (PZ-65I) and 596812003 (PZ-66I) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205221481 (Non SDG 595549002DUP) and 1205221484 (Non SDG 595549002PS) were diluted to minimize matrix effects on instrument performance. Samples 1205221481 (Non SDG 595549002DUP) and 1205221484 (Non SDG 595549002PS) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	596812		
	001	002	003
Chloride	200X	200X	10X
Sulfate	200X	200X	200X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 19

**Analytical Batch:** 2329094

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
596812001	PZ-64I
596812002	PZ-65I
596812003	PZ-66I
1205217036	Method Blank (MB)
1205217037	Laboratory Control Sample (LCS)
1205217039	596535001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Consecutive Weight Checks**

In order to meet consecutive weight check criteria, weight events must be within 0.0005g of each other. After initial weight checks failed this criteria, the analyst performed two additional weight events. After four weight events, the analyst was unable to get the samples to conform to the criteria. The failure to meet weigh back criteria is attributed to the matrix of the samples. 1205217039 (Non SDG 596535001DUP) and 596812001 (PZ-64I).

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2330275

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
596812001	PZ-64I
596812002	PZ-65I
596812003	PZ-66I
1205219645	Laboratory Control Sample (LCS)
1205219646	596535001(NonSDG) Sample Duplicate (DUP)
1205219647	596535001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

596812 / 596814

Pages: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote # \_\_\_\_\_  
 COC Number 01 \_\_\_\_\_  
 PO Number \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch A-P-B Additional  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_



**Labo...ries LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Seaview Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID	Date Collected (mm/dd/yy)	Time Collected (M/Time) (hh:mm)	QC Code(s)	Field Filtered (Y/N)	Sample Matrix (e.g., WG)	Should this sample be considered:		Sample Analysis Requested (6)					Comments
						Known or possible (Y/N)	Reference (Y/N)	As	As	As	As	As	
PZ-64 I	10/12/22	1000	G	N	WG	N	N	As	As	As	As	As	field pH = 5.53
PZ-65 I	10/11/22	1430	G	N	WG	N	N	As	As	As	As	As	field pH = 4.16
PZ-66 I	10/11/22	1420	G	N	WG	N	N	As	As	As	As	As	field pH = 5.41
ISRLS 10-48422													

Chain of Custody Signatures		
Retrieved By (Signed)	Date	Time
<i>[Signature]</i>	10-13-22	1025

For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, ED = Field Duplicate, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a Y - For yes the sample was field filtered or a N - For no sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WY=Waste Water, WL=Leachate, SOW=Soil, SED=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A - 1).  
 6.) Preservative Type: EA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, BX = Hexane, ST = Sodium Thiosulfate. If no preservative is added - leave field blank.  
 7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	As = Arsenic	Hg = Mercury	Bi = Barium	Se = Selenium
Cd = Cadmium	Cr = Chromium	Mn = Manganese	RCRA metals	
Pb = Lead				

Characteristics Hazards  
 FL = Flammable/ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Registered  
 PCB = Polychlorinated biphenyls

Listed Waste  
 LW = Listed Waste  
 (F, K, P and U listed wastes, waste codes)  
 Other  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharges)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  I OC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Si, Al, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mn, Mo, Se, Tl, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 1 C °C  
 Sample Collection Time Zone:  Eastern  Central  Mountain  Other:

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GPEC</u>		SDG/AR/COC/Work Order: <u>596814/596812</u>			
Received By: <u>PL</u>		Date Received: <u>10/13/00</u> <u>10/13/02</u>			
Carrier and Tracking Number		Circle Applicable:			
		FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other			
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.		
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>0</u> <u>0</u> mR/1hr Classified as: Rad 1   Rad 2   Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____		
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable:   Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable:   Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		<input checked="" type="checkbox"/>		Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: <u>1</u></span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>RS-21</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable:   Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?			<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable:   No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable:   No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable:   Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials [Signature] Date 10/17/00 Page 1 of 1

**List of current GEL Certifications as of 26 October 2022**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



November 10, 2022

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APB  
Work Order: 596814

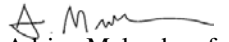
Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 13, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

  
Adrian Melendrez for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0003  
Enclosures



**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 596814 GEL Work Order: 596814

**The Qualifiers in this report are defined as follows:**

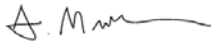
- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: November 10, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-64I  
Sample ID: 596814001  
Matrix: WG  
Collect Date: 12-OCT-22  
Receive Date: 13-OCT-22  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.66	+/-0.938	1.32	+/-1.03	3.00	pCi/L			JE1	11/01/22	0940	2331101	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.14	+/-0.959	1.32	+/-1.05		pCi/L		1	NXL1	11/10/22	0808	2331108	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.478	+/-0.201	0.210	+/-0.218	1.00	pCi/L			LXP1	11/09/22	0901	2331063	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2331101	75.6	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: November 10, 2022

Contact: Joju Abraham  
Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-651  
Sample ID: 596814002  
Matrix: WG  
Collect Date: 11-OCT-22  
Receive Date: 13-OCT-22  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.270	+/-1.15	2.08	+/-1.15	3.00	pCi/L			JE1	11/01/22	0940	2331101	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.451	+/-1.15	2.08	+/-1.16		pCi/L		1	NXL1	11/10/22	0808	2331108	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.181	+/-0.123	0.139	+/-0.126	1.00	pCi/L			LXP1	11/09/22	0951	2331063	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2331101	76.5	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: November 10, 2022

Contact: Joju Abraham

Project: Branch CCR Groundwater ComplianceAPB

Client Sample ID: PZ-66I

Project: GPCC00101

Sample ID: 596814003

Client ID: GPCC001

Matrix: WG

Collect Date: 11-OCT-22

Receive Date: 13-OCT-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.950	+/-1.29	2.21	+/-1.31	3.00	pCi/L			JE1	11/01/22	0940	2331101	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.36	+/-1.30	2.21	+/-1.33		pCi/L		1	NXL1	11/10/22	0808	2331108	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.407	+/-0.174	0.173	+/-0.185	1.00	pCi/L			LXP1	11/09/22	0951	2331063	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2331101	73.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 596814**

**Product:** Radium-226+Radium-228 Calculation

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2331108

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
596814001	PZ-64I
596814002	PZ-65I
596814003	PZ-66I

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** GFPC Ra228, Liquid

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2331101

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
596814001	PZ-64I
596814002	PZ-65I
596814003	PZ-66I
1205221429	Method Blank (MB)
1205221430	596535001(NonSDG) Sample Duplicate (DUP)
1205221431	596535001(NonSDG) Matrix Spike (MS)
1205221432	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205221431 (Non SDG 596535001MS), aliquot was reduced to conserve sample volume.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2331063

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
596814001	PZ-64I
596814002	PZ-65I
596814003	PZ-66I
1205221327	Method Blank (MB)
1205221328	596686001(NonSDG) Sample Duplicate (DUP)
1205221329	596686001(NonSDG) Matrix Spike (MS)
1205221330	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205221329 (Non SDG 596686001MS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

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## QC Summary

Report Date: November 10, 2022  
Page 1 of 2

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 596814

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2331101										
QC1205221430	596535001 DUP										
Radium-228	U	-0.665	U	0.522	pCi/L	0		N/A	JE1	11/01/22	09:39
	Uncert:	+/-1.09		+/-0.997							
	TPU:	+/-1.09		+/-1.01							
QC1205221432	LCS										
Radium-228	65.5			63.9	pCi/L		97.6	(75%-125%)	JE1	11/01/22	09:40
	Uncert:			+/-4.11							
	TPU:			+/-16.6							
QC1205221429	MB										
Radium-228			U	0.810	pCi/L				JE1	11/01/22	09:39
	Uncert:			+/-1.57							
	TPU:			+/-1.58							
QC1205221431	596535001 MS										
Radium-228	384	U	-0.665	349	pCi/L		90.7	(75%-125%)	JE1	11/01/22	09:39
	Uncert:		+/-1.09	+/-23.2							
	TPU:		+/-1.09	+/-90.3							
<b>Rad Ra-226</b>											
Batch	2331063										
QC1205221328	596686001 DUP										
Radium-226		0.241		0.371	pCi/L	42.6		(0% - 100%)	LXP1	11/09/22	09:51
	Uncert:	+/-0.143		+/-0.154							
	TPU:	+/-0.153		+/-0.172							
QC1205221330	LCS										
Radium-226	16.6			13.7	pCi/L		82.5	(75%-125%)	LXP1	11/09/22	09:51
	Uncert:			+/-0.904							
	TPU:			+/-3.44							
QC1205221327	MB										
Radium-226			U	0.126	pCi/L				LXP1	11/09/22	09:51
	Uncert:			+/-0.144							
	TPU:			+/-0.146							
QC1205221329	596686001 MS										
Radium-226	130	0.241		116	pCi/L		89.2	(75%-125%)	LXP1	11/09/22	09:51
	Uncert:	+/-0.143		+/-7.94							
	TPU:	+/-0.153		+/-27.7							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a Tracer compound
- < Result is less than value reported

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 596814

Page 2 of 2

Parname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>	Result is greater than value reported									
BD	Results are either below the MDC or tracer recovery is low									
FA	Failed analysis.									
H	Analytical holding time was exceeded									
J	See case narrative for an explanation									
J	Value is estimated									
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.									
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.									
M	M if above MDC and less than LLD									
M	REMP Result > MDC/CL and < RDL									
N/A	RPD or %Recovery limits do not apply.									
N1	See case narrative									
ND	Analyte concentration is not detected above the detection limit									
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.									
R	Sample results are rejected									
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.									
UI	Gamma Spectroscopy--Uncertain identification									
UJ	Gamma Spectroscopy--Uncertain identification									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
h	Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

596812 / 596814

Page: \_\_\_\_\_ of \_\_\_\_\_

Project #: \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number: \_\_\_\_\_

PO Number: \_\_\_\_\_

Client Name: GA Power

Project Name: Plant Bunch AP-B Additional

Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308

Collected By: T. Gobler / J. Denisford

Send Results To: SCS & Geosyntec Contacts

\* For composites - indicate start and stop date/time

Phone # 404-506-7116

Fax # \_\_\_\_\_

Chain of Custody Signatures

Requisitioned By (Signed)	Date	Time	Received by (signed)	Date	Time
T. Gobler	10-13-22	1025	J. Denisford	10/13/22	1625

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, ED = Field Duplicate, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or a N - for no sample was not field filtered.

4.) Matrix Codes: VD=Drinking Water, WC=Groundwater, VS=Surface Water, WY=Waste Water, WL=Lachete, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: EA = Hydrochloric Acid, NI = Nitric Acid, SE = Sulfuric Acid, SA = Salphuric Acid, AA = Ascorbic Acid, EX = Hexane, ST = Sodium Thiosulfate, if no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals: \_\_\_\_\_

As = Arsenic, Hg = Mercury

Ba = Barium, Se = Selenium

Cd = Cadmium, Ag = Silver

Cr = Chromium, MR = Misc. RCRA metals

Pb = Lead

Characteristic Hazards: \_\_\_\_\_

FL = Flammable/ignitable

CO = Corrosive

RE = Reactive

TSCA Regulated: \_\_\_\_\_

YCB = Polychlorinated biphenyls

Listed Waste: \_\_\_\_\_

LW = Listed Waste

(F, K, P and U-listed wastes,)

Waste code(s): \_\_\_\_\_

Other: \_\_\_\_\_

OT = Other / Unknown

(i.e.: High/low pH, asbestos, beryllium, bromines, other misc. health hazards, etc.)

Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd marriages, etc.)

Sample Analysis Requested (Fill in the number of containers for each test)

Should this sample be considered:	Preservative Type (6)	Comments
<input type="checkbox"/> Known or possible <input type="checkbox"/> Unknown or possible <input type="checkbox"/> None	<input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10	Note: extra sample is required for sample specific QC field pH = 5.53 field pH = 4.16 field pH = 5.91

TAT Requested: Normal: X Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  IQC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B, Ca, Sr, As, Ba, Be, Cl, Cr, Cu, Pb, Li, Mo, Se, Ni, Fe

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>G PCC</u>		SDG/AR/COC/Work Order: <u>596814/596812</u>			
Received By: <u>PL</u>		Date Received: <u>10/19/08</u> <u>10/13/08</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other			
		Suspected Hazard Information			
		Yes	No		
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>OPM</u> mR/Hr Classified as: Rad 1   Rad 2   Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____		
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius   TEMP: <u>1</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>RS-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials [Signature] Date 10/17/08 Page 1 of 1



**List of current GEL Certifications as of 10 November 2022**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

January/February 2023

February 27, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Orders: 609212,608413,608602,608803 and 608969

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 25, 2023, January 26, 2023, January 27, 2023, January 31, 2023 and February 02, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608602 GEL Work Order: 608602

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

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# GEL LABORATORIES LLC

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## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 609212 GEL Work Order: 609212

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_

*Erin L. Trent*

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608803 GEL Work Order: 608803

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608413 GEL Work Order: 608413

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

# GEL LABORATORIES LLC

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## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608969 GEL Work Order: 608969

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin S. Trent*



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S	Project: GPCC00101
Sample ID: 608413001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 13:10	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.97			SU			AJ1	01/24/23	1310	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1310	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.79	0.0670	0.200	mg/L		1	HXC1	01/25/23	1624	2374002	3
Fluoride	J	0.0926	0.0330	0.100	mg/L		1					
Sulfate		0.628	0.133	0.400	mg/L		1					
Nitrate-N		0.945	0.165	0.500	mg/L		5	HXC1	01/25/23	2234	2374002	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1044	2374419	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1445	2374301	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00530	0.00520	0.0150	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		3.28	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1905	2374301	7
Barium		0.0576	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		5.62	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	J	0.00103	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.54	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		5.52	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S Project: GPCC00101  
Sample ID: 608413001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		59.0	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		32.0	1.45	4.00	mg/L			EK1	01/30/23	1520	2375521	10
Bicarbonate alkalinity (CaCO3)		32.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S  
Sample ID: 608413001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I	Project: GPCC00101
Sample ID: 608413002	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 14:50	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.48			SU			AJ1	01/24/23	1450	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1450	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		2.49	0.0670	0.200	mg/L		1	HXC1	01/25/23	1655	2374002	3
Fluoride		0.214	0.0330	0.100	mg/L		1					
Sulfate		1.80	0.133	0.400	mg/L		1					
Nitrate-N		0.438	0.0660	0.200	mg/L		2	HXC1	01/26/23	0007	2374002	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1046	2374419	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1448	2374301	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00884	0.00520	0.0150	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00529	0.00300	0.0100	mg/L	1.00	1					
Magnesium		3.98	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000388	0.000200	0.00100	mg/L	1.00	1					
Antimony		0.0245	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1908	2374301	7
Barium		0.0512	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		13.7	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	J	0.00405	0.00100	0.00500	mg/L	1.00	1					
Potassium		3.61	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I Project: GPCC00101  
Sample ID: 608413002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		114	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		65.2	1.45	4.00	mg/L			EK1	01/30/23	1528	2375521	10
Bicarbonate alkalinity (CaCO3)		65.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I  
Sample ID: 608413002

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S	Project: GPCC00101
Sample ID: 608413003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 14:15	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.76			SU			AJ1	01/24/23	1415	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1415	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N		0.261	0.0660	0.200	mg/L		2	HXC1	01/26/23	0037	2374002	3
Chloride		2.88	0.0670	0.200	mg/L		1	HXC1	01/25/23	1726	2374002	4
Fluoride		0.231	0.0330	0.100	mg/L		1					
Sulfate		19.7	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1048	2374419	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1912	2374301	6
Barium		0.0468	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		6.97	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.00	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		10.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1450	2374301	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0437	0.00520	0.0150	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00749	0.00300	0.0100	mg/L	1.00	1					
Magnesium		4.43	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S	Project: GPCC00101
Sample ID: 608413003	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		102	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		31.0	1.45	4.00	mg/L			EK1	01/30/23	1531	2375521	10
Bicarbonate alkalinity (CaCO3)		31.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

**Notes:**



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S  
Sample ID: 608413003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S	Project: GPCC00101
Sample ID: 608413004	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 15:41	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.05			SU			AJ1	01/24/23	1541	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1541	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		247	2.66	8.00	mg/L		20	HXC1	01/26/23	0108	2374002	3
Chloride		4.49	0.0670	0.200	mg/L		1	HXC1	01/25/23	1757	2374002	4
Fluoride	J	0.0820	0.0330	0.100	mg/L		1					
Nitrate-N		0.223	0.0660	0.200	mg/L		2	HXC1	01/26/23	0139	2374002	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1049	2374419	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1915	2374301	7
Barium		0.0182	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		46.6	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.70	0.0800	0.300	mg/L	1.00	1					
Selenium		0.198	0.00150	0.00500	mg/L	1.00	1					
Sodium		27.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.11	0.0520	0.150	mg/L	1.00	10	SKJ	02/03/23	1424	2374301	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1538	2374301	9
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00700	0.00300	0.0100	mg/L	1.00	1					
Magnesium		32.8	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S	Project: GPCC00101
Sample ID: 608413004	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		425	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		34.0	1.45	4.00	mg/L			EK1	01/30/23	1540	2375521	12
Bicarbonate alkalinity (CaCO3)		34.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S  
Sample ID: 608413004

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44	Project: GPCC00101
Sample ID: 608602001	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 13:25	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.13			SU			EOS1	01/25/23	1325	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1325	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	HXC1	01/26/23	2255	2374768	3
Sulfate		41.0	0.665	2.00	mg/L		5					
Chloride		5.84	0.0670	0.200	mg/L		1	HXC1	01/26/23	1527	2374768	4
Fluoride		0.130	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1227	2375028	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.47	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1739	2374786	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1836	2374786	7
Lithium	J	0.00728	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.396	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1103	2374786	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1910	2374786	9
Arsenic	J	0.00221	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0498	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		25.1	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0504	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		10.8	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.95	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		12.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44 Project: GPCC00101  
Sample ID: 608602001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		156	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		79.0	1.45	4.00	mg/L			EK1	02/06/23	1119	2378173	12
Bicarbonate alkalinity (CaCO3)		79.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-44	Project:	GPCC00101
Sample ID:	608602001	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01      Project: GPCC00101  
Sample ID: 608602002      Client ID: GPCC001  
Matrix: WG  
Collect Date: 25-JAN-23 12:00  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.151	0.0330	0.100	mg/L		1	HXC1	01/26/23	1557	2374768	1
Nitrate-N	J	0.0824	0.0330	0.100	mg/L		1					
Chloride		27.3	0.670	2.00	mg/L		10	HXC1	01/27/23	0024	2374768	2
Sulfate		102	1.33	4.00	mg/L		10					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1232	2375028	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1754	2374786	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0702	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0362	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		34.9	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00261	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0846	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		17.2	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.254	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000493	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.83	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1901	2374786	5
Lithium	J	0.00313	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		253	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	7



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01 Project: GPCC00101  
Sample ID: 608602002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		39.4	1.45	4.00	mg/L			EK1	02/06/23	1123	2378173	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		39.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 4500-S (2-) D	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45      Project: GPCC00101  
Sample ID: 608602003      Client ID: GPCC001  
Matrix: WG  
Collect Date: 25-JAN-23 14:40  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.82			SU			EOS1	01/25/23	1440	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1440	2374720	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	J	0.126	0.0660	0.200	mg/L		2	HXC1	01/27/23	0054	2374768	3
Chloride		27.4	0.670	2.00	mg/L		10	HXC1	01/27/23	0124	2374768	4
Sulfate		102	1.33	4.00	mg/L		10					
Fluoride		0.163	0.0330	0.100	mg/L		1	HXC1	01/26/23	1627	2374768	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1233	2375028	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1905	2374786	7
Lithium	J	0.00333	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1757	2374786	8
Arsenic	J	0.00225	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0695	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0355	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		34.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00258	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0752	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000595	0.000500	0.00200	mg/L	1.00	1					
Magnesium		17.3	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.254	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000545	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.83	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45 Project: GPCC00101  
Sample ID: 608602003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		251	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		38.4	1.45	4.00	mg/L			EK1	02/06/23	1132	2378173	11
Bicarbonate alkalinity (CaCO3)		38.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45  
Sample ID: 608602003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04      Project: GPCC00101  
Sample ID: 608602004      Client ID: GPCC001  
Matrix: WQ  
Collect Date: 25-JAN-23 16:30  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	01/26/23	1657	2374768	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0803	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1235	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1908	2374786	3
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1801	2374786	4
Arsenic	J	0.00285	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	6

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04 Project: GPCC00101  
Sample ID: 608602004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1203	2378173	7
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01      Project: GPCC00101  
Sample ID: 608602005      Client ID: GPCC001  
Matrix: WQ  
Collect Date: 25-JAN-23 13:05  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	01/26/23	1726	2374768	1
Fluoride	J	0.0641	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1237	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1805	2374786	3
Arsenic	J	0.00294	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1912	2374786	4
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	6

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01 Project: GPCC00101  
Sample ID: 608602005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1209	2378173	7
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50	Project: GPCC00101
Sample ID: 608602006	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 13:25	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.18			SU			EOS1	01/25/23	1325	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1325	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		14.7	0.670	2.00	mg/L		10	HXC1	01/27/23	0324	2374768	3
Fluoride		0.432	0.0330	0.100	mg/L		1	HXC1	01/26/23	1756	2374768	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1290	26.6	80.0	mg/L		200	HXC1	01/27/23	0154	2374768	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1238	2375028	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.383	0.0260	0.0750	mg/L	1.00	5	SKJ	02/08/23	1819	2374786	7
Calcium		216	0.400	1.00	mg/L	1.00	5					
Cobalt		1.35	0.00150	0.00500	mg/L	1.00	5					
Magnesium		153	0.0500	0.150	mg/L	1.00	5					
Sodium		51.5	0.400	1.25	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1928	2374786	8
Arsenic	J	0.00236	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0165	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00726	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		0.193	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		10.8	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00189	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		79.6	0.100	0.500	mg/L	1.00	100	SKJ	02/08/23	1816	2374786	9
Beryllium		0.00962	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1916	2374786	10
Lithium		0.0542	0.00300	0.0100	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50 Project: GPCC00101  
Sample ID: 608602006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2040	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		14.2	1.45	4.00	mg/L			EK1	02/06/23	1212	2378173	13
Bicarbonate alkalinity (CaCO3)		14.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50  
Sample ID: 608602006

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I	Project: GPCC00101
Sample ID: 608602007	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 15:10	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.25			SU			EOS1	01/25/23	1510	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/25/23	1510	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		145	2.66	8.00	mg/L		20	HXC1	01/27/23	0354	2374768	3
Chloride		6.35	0.0670	0.200	mg/L		1	HXC1	01/26/23	1826	2374768	4
Fluoride		0.169	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1240	2375028	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.79	0.104	0.300	mg/L	1.00	20	SKJ	02/08/23	1823	2374786	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1919	2374786	7
Lithium		0.0186	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.560	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1113	2374786	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1938	2374786	9
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0249	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		36.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		1.34	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		19.3	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000609	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.97	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		20.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I	Project: GPCC00101
Sample ID: 608602007	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		276	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	10
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1541	2375142	11
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		46.0	1.45	4.00	mg/L			EK1	02/06/23	1217	2378173	12
Bicarbonate alkalinity (CaCO3)		46.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

**Notes:**

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I  
Sample ID: 608602007

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I	Project: GPCC00101
Sample ID: 608602008	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 13:45	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.63			SU			EOS1	01/25/23	1345	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1345	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.81	0.0670	0.200	mg/L		1	HXC1	01/26/23	1856	2374768	3
Fluoride		0.152	0.0330	0.100	mg/L		1					
Nitrate-N		0.659	0.0330	0.100	mg/L		1					
Sulfate		150	2.66	8.00	mg/L		20	HXC1	01/27/23	0423	2374768	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1241	2375028	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1942	2374786	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0166	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00711	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		6.59	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.89	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		15.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.14	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1826	2374786	7
Calcium		55.7	0.800	2.00	mg/L	1.00	10					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1923	2374786	8
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.885	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1115	2374786	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I Project: GPCC00101  
Sample ID: 608602008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		260	2.38	10.0	mg/L		CH6	02/01/23	1135	2376740		10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 JW2	01/30/23	1541	2375142		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		31.0	1.45	4.00	mg/L		EK1	02/06/23	1220	2378173		12
Bicarbonate alkalinity (CaCO3)		31.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I  
Sample ID: 608602008

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I	Project: GPCC00101
Sample ID: 608803001	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 10:15	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.18			SU			EOS1	01/26/23	1015	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1015	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.96	0.0670	0.200	mg/L		1	JLD1	01/27/23	1731	2375330	3
Fluoride		0.202	0.0330	0.100	mg/L		1					
Nitrate-N		1.17	0.165	0.500	mg/L		5	JLD1	01/28/23	0216	2375330	4
Sulfate		182	2.66	8.00	mg/L		20	JLD1	01/28/23	0247	2375330	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1013	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.45	0.104	0.300	mg/L	1.00	20	PRB	02/04/23	1942	2375324	7
Calcium		57.6	1.60	4.00	mg/L	1.00	20					
Manganese		1.71	0.0200	0.100	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2145	2375324	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0293	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00320	0.000300	0.00100	mg/L	1.00	1					
Iron		0.453	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		22.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000920	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.59	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		17.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I Project: GPCC00101  
Sample ID: 608803001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		339	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		82.8	1.45	4.00	mg/L			EK1	02/06/23	1254	2378066	11
Bicarbonate alkalinity (CaCO3)		82.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I  
Sample ID: 608803001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I	Project: GPCC00101
Sample ID: 608803002	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 11:30	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.30			SU			EOS1	01/26/23	1130	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		5			mg/L			EOS1	01/26/23	1130	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.59	0.0670	0.200	mg/L		1	JLD1	01/27/23	1802	2375330	3
Fluoride	J	0.0935	0.0330	0.100	mg/L		1					
Nitrate-N		0.102	0.0330	0.100	mg/L		1					
Sulfate		293	3.33	10.0	mg/L		25	JLD1	01/28/23	0317	2375330	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1017	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.07	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	1957	2375324	6
Calcium		68.0	0.800	2.00	mg/L	1.00	10					
Manganese		1.43	0.0100	0.0500	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2203	2375324	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0180	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00109	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00823	0.000300	0.00100	mg/L	1.00	1					
Iron		23.0	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00331	0.00300	0.0100	mg/L	1.00	1					
Magnesium		8.54	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		10.0	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		17.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I Project: GPCC00101  
Sample ID: 608803002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		419	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1353	2378066	10
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I  
Sample ID: 608803002

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I	Project: GPCC00101
Sample ID: 608803003	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 11:05	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.28			SU			EOS1	01/26/23	1105	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1105	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.82	0.0670	0.200	mg/L		1	JLD1	01/27/23	1833	2375330	3
Fluoride		0.167	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1030	13.3	40.0	mg/L		100	JLD1	01/28/23	0348	2375330	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1019	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		2.17	0.104	0.300	mg/L	1.00	20	PRB	02/04/23	2000	2375324	6
Calcium		361	1.60	4.00	mg/L	1.00	20					
Magnesium		64.4	0.200	0.600	mg/L	1.00	20					
Manganese		1.22	0.0200	0.100	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2207	2375324	7
Arsenic	J	0.00208	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0397	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00158	0.000300	0.00100	mg/L	1.00	1					
Iron		2.33	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0279	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00140	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.54	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		32.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I	Project: GPCC00101
Sample ID: 608803003	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1680	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		131	1.45	4.00	mg/L			EK1	02/06/23	1356	2378066	10
Bicarbonate alkalinity (CaCO3)		131	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

**Notes:**

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I  
Sample ID: 608803003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05	Project: GPCC00101
Sample ID: 608803004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 26-JAN-23 16:10	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	01/27/23	1904	2375330	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1027	2375754	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2004	2375324	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00620	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	4
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	5

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05 Project: GPCC00101  
Sample ID: 608803004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	1.60	1.45	4.00	mg/L			EK1	02/06/23	1358	2378066	6
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	1.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02	Project: GPCC00101
Sample ID: 608803005	Client ID: GPCC001
Matrix: WQ	
Collect Date: 26-JAN-23 14:25	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	J	0.165	0.0670	0.200	mg/L		1	JLD1	01/27/23	1935	2375330	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1029	2375754	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2008	2375324	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	4
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	5

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02 Project: GPCC00101  
Sample ID: 608803005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L		EK1	02/06/23	1401	2378066		6
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51I Project: GPCC00101  
Sample ID: 608803006 Client ID: GPCC001  
Matrix: WG  
Collect Date: 26-JAN-23 12:00  
Receive Date: 27-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.44			SU			EOS1	01/26/23	1200	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1200	2375305	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1150	13.3	40.0	mg/L		100	JLD1	01/28/23	0552	2375330	3
Fluoride		0.120	0.0330	0.100	mg/L		1	JLD1	01/27/23	2006	2375330	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		9.50	0.134	0.400	mg/L		2	JLD1	01/28/23	0419	2375330	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1031	2375754	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.445	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2018	2375324	7
Calcium		198	0.800	2.00	mg/L	1.00	10					
Magnesium		131	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2210	2375324	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0152	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00101	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0231	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0951	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0247	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000283	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.5	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		47.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		47.7	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2022	2375324	9
Solids Analysis												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-511 Project: GPCC00101  
Sample ID: 608803006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1750	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		23.2	1.45	4.00	mg/L			EK1	02/06/23	1403	2378066	12
Bicarbonate alkalinity (CaCO3)		23.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51I  
Sample ID: 608803006

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02	Project: GPCC00101
Sample ID: 608803007	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 12:00	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		11.8	0.335	1.00	mg/L		5	JLD1	01/28/23	0623	2375330	1
Fluoride		1.13	0.0330	0.100	mg/L		1	JLD1	01/27/23	2036	2375330	2
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		954	13.3	40.0	mg/L		100	JLD1	01/28/23	0653	2375330	3
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1032	2375754	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Manganese		30.8	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2029	2375324	5
Boron		0.447	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2026	2375324	6
Calcium		150	0.800	2.00	mg/L	1.00	10					
Magnesium		86.4	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2225	2375324	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0169	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0378	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00429	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.522	0.000300	0.00100	mg/L	1.00	1					
Iron		48.3	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000896	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0547	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.63	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00278	0.00150	0.00500	mg/L	1.00	1					
Sodium		36.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		1410	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	8
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	9

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02 Project: GPCC00101  
Sample ID: 608803007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L		EK1	02/06/23	1406	2378066		10
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47	Project: GPCC00101
Sample ID: 608803008	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 13:33	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.65			SU			EOS1	01/26/23	1333	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1333	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.96	0.0670	0.200	mg/L		1	JLD1	01/27/23	1713	2375336	3
Fluoride		0.117	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0735	0.0330	0.100	mg/L		1					
Sulfate		1310	26.6	80.0	mg/L		200	JLD1	01/28/23	0055	2375336	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1037	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Manganese		0.0154	0.00100	0.00500	mg/L	1.00	1	PRB	02/05/23	1045	2375324	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2228	2375324	7
Arsenic	J	0.00240	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0311	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000376	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0949	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0506	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000270	0.000200	0.00100	mg/L	1.00	1					
Potassium		12.6	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		46.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.661	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2033	2375324	8
Calcium		331	0.800	2.00	mg/L	1.00	10					
Magnesium		123	0.100	0.300	mg/L	1.00	10					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47	Project: GPCC00101
Sample ID: 608803008	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2010	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		25.6	1.45	4.00	mg/L			EK1	02/06/23	1408	2378066	11
Bicarbonate alkalinity (CaCO3)		25.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-BRGWC-47	Project:	GPCC00101
Sample ID:	608803008	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D	Project: GPCC00101
Sample ID: 608803009	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 09:50	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.20			SU			EOS1	01/26/23	0950	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/26/23	0950	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.354	0.0330	0.100	mg/L		1	JLD1	01/27/23	1743	2375336	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		21.8	2.68	8.00	mg/L		40	JLD1	01/28/23	0126	2375336	4
Sulfate		370	5.32	16.0	mg/L		40					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1039	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.0397	0.00520	0.0150	mg/L	1.00	1	PRB	02/05/23	1030	2375324	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2232	2375324	7
Arsenic	J	0.00275	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0481	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		1.59	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00883	0.00300	0.0100	mg/L	1.00	1					
Magnesium		29.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000850	0.000200	0.00100	mg/L	1.00	1					
Potassium		12.4	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		119	0.800	2.00	mg/L	1.00	10	PRB	02/04/23	2037	2375324	8
Manganese		1.16	0.0100	0.0500	mg/L	1.00	10					
Sodium		47.7	0.800	2.50	mg/L	1.00	10					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D Project: GPCC00101  
Sample ID: 608803009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		693	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		128	1.45	4.00	mg/L			EK1	02/06/23	1415	2378066	11
Bicarbonate alkalinity (CaCO3)		128	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D  
Sample ID: 608803009

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I	Project: GPCC00101
Sample ID: 608803010	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 15:00	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		3.93			SU			EOS1	01/26/23	1500	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		4			mg/L			EOS1	01/26/23	1500	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1070	13.3	40.0	mg/L		100	JLD1	01/28/23	0227	2375336	3
Chloride		12.1	0.134	0.400	mg/L		2	JLD1	01/28/23	0157	2375336	4
Fluoride		1.19	0.0330	0.100	mg/L		1	JLD1	01/27/23	1814	2375336	5
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1040	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.440	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2047	2375324	7
Calcium		151	0.800	2.00	mg/L	1.00	10					
Magnesium		86.3	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2236	2375324	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0167	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0377	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00435	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.518	0.000300	0.00100	mg/L	1.00	1					
Iron		47.6	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000895	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0553	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.64	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00265	0.00150	0.00500	mg/L	1.00	1					
Sodium		36.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		30.0	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2051	2375324	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I Project: GPCC00101  
Sample ID: 608803010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1440	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1418	2378066	12
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I  
Sample ID: 608803010

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I	Project: GPCC00101
Sample ID: 608803011	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 13:17	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		3.78			SU			EOS1	01/26/23	1317	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6.5			mg/L			EOS1	01/26/23	1317	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		41.4	0.670	2.00	mg/L		10	JLD1	01/28/23	0258	2375336	3
Fluoride		2.83	0.330	1.00	mg/L		10					
Nitrate-N	U	ND	0.330	1.00	mg/L		10					
Sulfate		4000	66.5	200	mg/L		500	JLD1	01/28/23	0329	2375336	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1042	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		278	8.00	20.0	mg/L	1.00	100	PRB	02/04/23	2058	2375324	6
Iron		446	3.30	10.0	mg/L	1.00	100					
Manganese		91.8	0.100	0.500	mg/L	1.00	100					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2239	2375324	7
Arsenic		0.0237	0.00200	0.00500	mg/L	1.00	1					
Beryllium		0.115	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00531	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00311	0.00300	0.0100	mg/L	1.00	1					
Lithium		0.200	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		18.6	0.0800	0.300	mg/L	1.00	1					
Selenium		0.104	0.00150	0.00500	mg/L	1.00	1					
Barium	J	0.0132	0.00335	0.0200	mg/L	1.00	5	PRB	02/04/23	2055	2375324	8
Cobalt		1.86	0.00150	0.00500	mg/L	1.00	5					
Lead	U	ND	0.00250	0.0100	mg/L	1.00	5					
Magnesium		193	0.0500	0.150	mg/L	1.00	5					
Sodium		98.6	0.400	1.25	mg/L	1.00	5					
Thallium	U	ND	0.00300	0.0100	mg/L	1.00	5					
Boron		0.0543	0.00520	0.0150	mg/L	1.00	1	PRB	02/05/23	1032	2375324	9
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I Project: GPCC00101  
Sample ID: 608803011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4330	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1144	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1449	2378067	12
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I  
Sample ID: 608803011

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I Project: GPCC00101  
Sample ID: 608803012 Client ID: GPCC001  
Matrix: WG  
Collect Date: 26-JAN-23 15:05  
Receive Date: 27-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.60			SU			EOS1	01/26/23	1505	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0.5			mg/L			EOS1	01/26/23	1505	2375305	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		28.3	0.335	1.00	mg/L		5	JLD1	01/28/23	0400	2375336	3
Sulfate		1970	26.6	80.0	mg/L		200	JLD1	01/28/23	0431	2375336	4
Fluoride		1.66	0.0330	0.100	mg/L		1	JLD1	01/27/23	1916	2375336	5
Nitrate-N		0.512	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1044	2375754	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.288	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2102	2375324	7
Calcium		284	0.800	2.00	mg/L	1.00	10					
Cobalt		3.64	0.00300	0.0100	mg/L	1.00	10					
Magnesium		190	0.100	0.300	mg/L	1.00	10					
Sodium		62.3	0.800	2.50	mg/L	1.00	10					
Manganese		188	1.00	5.00	mg/L	1.00	1000	PRB	02/04/23	2105	2375324	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2243	2375324	9
Arsenic	J	0.00204	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0218	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0782	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.0152	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		0.663	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.114	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.5	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00310	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I Project: GPCC00101  
Sample ID: 608803012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2880	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1144	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		6.00	1.45	4.00	mg/L			EK1	02/06/23	1453	2378067	12
Bicarbonate alkalinity (CaCO3)		6.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-60I	Project:	GPCC00101
Sample ID:	608803012	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I	Project: GPCC00101
Sample ID: 608803013	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 14:10	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.16			SU			EOS1	01/26/23	1410	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0.5			mg/L			EOS1	01/26/23	1410	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.184	0.0330	0.100	mg/L		1	JLD1	01/27/23	1947	2375336	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1490	26.6	80.0	mg/L		200	JLD1	01/28/23	0634	2375336	4
Chloride		17.0	0.335	1.00	mg/L		5	JLD1	01/28/23	0603	2375336	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1045	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Manganese		111	1.00	5.00	mg/L	1.00	1000	PRB	02/04/23	2120	2375324	7
Boron		0.353	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2116	2375324	8
Calcium		214	0.800	2.00	mg/L	1.00	10					
Magnesium		170	0.100	0.300	mg/L	1.00	10					
Sodium		59.6	0.800	2.50	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2246	2375324	9
Arsenic	J	0.00225	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0125	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00164	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000517	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.604	0.000300	0.00100	mg/L	1.00	1					
Iron		0.651	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0123	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.32	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00321	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I Project: GPCC00101  
Sample ID: 608803013 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2280	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1144	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		16.0	1.45	4.00	mg/L			EK1	02/06/23	1510	2378067	12
Bicarbonate alkalinity (CaCO3)		16.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I  
Sample ID: 608803013

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I	Project: GPCC00101
Sample ID: 608803014	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 16:45	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.06			SU			EOS1	01/26/23	1645	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	01/26/23	1645	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		26.5	0.335	1.00	mg/L		5	JLD1	01/28/23	0705	2375336	3
Nitrate-N	U	ND	0.165	0.500	mg/L		5					
Sulfate		3160	26.6	80.0	mg/L		200	JLD1	01/28/23	0736	2375336	4
Fluoride		1.08	0.0330	0.100	mg/L		1	JLD1	01/27/23	2018	2375336	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1047	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		235	0.800	2.00	mg/L	1.00	10	PRB	02/04/23	2124	2375324	7
Iron		320	0.330	1.00	mg/L	1.00	10					
Magnesium		217	0.100	0.300	mg/L	1.00	10					
Sodium		73.0	0.800	2.50	mg/L	1.00	10					
Manganese		48.1	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2127	2375324	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2250	2375324	9
Arsenic		0.00926	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0103	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0179	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00119	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00352	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.405	0.000300	0.00100	mg/L	1.00	1					
Lead	J	0.00133	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0791	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.3	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0212	0.00150	0.00500	mg/L	1.00	1					
Thallium	J	0.000773	0.000600	0.00200	mg/L	1.00	1					
Boron		0.0322	0.00520	0.0150	mg/L	1.00	1	PRB	02/05/23	1034	2375324	10
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I Project: GPCC00101  
Sample ID: 608803014 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3770	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1145	2376122	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1513	2378067	13
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I  
Sample ID: 608803014

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D	Project: GPCC00101
Sample ID: 608803015	Client ID: GPCC001
Matrix: WG	
Collect Date: 27-JAN-23 08:40	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.24			SU			EOS1	01/27/23	0840	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		4.5			mg/L			EOS1	01/27/23	0840	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		11.5	0.134	0.400	mg/L		2	JLD1	01/28/23	0807	2375336	3
Fluoride	J	0.151	0.0660	0.200	mg/L		2					
Sulfate		885	13.3	40.0	mg/L		100	JLD1	01/28/23	0939	2375336	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1	JLD1	01/27/23	2049	2375336	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1049	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.277	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2131	2375324	7
Calcium		214	0.800	2.00	mg/L	1.00	10					
Magnesium		86.4	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2254	2375324	8
Arsenic	J	0.00215	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0315	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0728	0.000300	0.00100	mg/L	1.00	1					
Iron		4.96	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0274	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000817	0.000200	0.00100	mg/L	1.00	1					
Potassium		13.2	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		47.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		10.1	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2134	2375324	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D Project: GPCC00101  
Sample ID: 608803015 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1400	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1145	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		78.8	1.45	4.00	mg/L			EK1	02/06/23	1517	2378067	12
Bicarbonate alkalinity (CaCO3)		78.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D  
Sample ID: 608803015

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-66I	Project: GPCC00101
Sample ID: 608969001	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 14:20	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.64			SU			EOS1	01/30/23	1420	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	01/30/23	1420	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		2060	26.6	80.0	mg/L		200	JLD1	01/31/23	2021	2376273	3
Fluoride	J	0.0574	0.0330	0.100	mg/L		1	JLD1	01/31/23	1103	2376273	4
Nitrate-N	J	0.0461	0.0330	0.100	mg/L		1					
Chloride		10.2	0.335	1.00	mg/L		5	JLD1	01/31/23	2052	2376273	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0946	2376750	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	1952	2376276	7
Barium		0.0284	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.345	0.000300	0.00100	mg/L	1.00	1					
Iron		17.8	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0131	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000675	0.000200	0.00100	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		217	0.800	2.00	mg/L	1.00	10	SKJ	02/10/23	1637	2376276	8
Sodium		62.9	0.800	2.50	mg/L	1.00	10					
Boron		0.128	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	0953	2376276	9
Magnesium		303	0.100	0.300	mg/L	1.00	10	SKJ	02/14/23	0814	2376276	10
Arsenic		0.00565	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1723	2376276	11
Beryllium	J	0.000318	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Potassium		10.8	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00817	0.00150	0.00500	mg/L	1.00	1					
Manganese		109	0.500	2.50	mg/L	1.00	500	SKJ	02/10/23	1549	2376276	12
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-66I Project: GPCC00101  
Sample ID: 608969001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2890	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	13
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1553	2377896	14
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		62.4	1.45	4.00	mg/L			EK1	02/10/23	1513	2382211	15
Bicarbonate alkalinity (CaCO3)		62.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 7470A		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SW846 3005A/6020B		
12	SW846 3005A/6020B		
13	SM 2540C		
14	SM 4500-S (2-) D		
15	SM 2320B		

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-66I	Project:	GPCC00101
Sample ID:	608969001	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03	Project: GPCC00101
Sample ID: 608969002	Client ID: GPCC001
Matrix: WQ	
Collect Date: 30-JAN-23 13:50	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		0.204	0.0670	0.200	mg/L		1	JLD1	01/31/23	1950	2376273	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0948	2376750	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1006	2376276	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1600	2376276	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2010	2376276	5
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.0170	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.00113	0.000200	0.00100	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0757	2376276	6
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	7
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1554	2377896	8

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03 Project: GPCC00101  
Sample ID: 608969002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	1.80	1.45	4.00	mg/L			EK1	02/10/23	1525	2382211	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 4500-S (2-) D	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06	Project: GPCC00101
Sample ID: 608969003	Client ID: GPCC001
Matrix: WQ	
Collect Date: 30-JAN-23 15:15	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		0.667	0.0670	0.200	mg/L		1	JLD1	01/31/23	1204	2376273	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0950	2376750	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1603	2376276	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2021	2376276	4
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese	J	0.00112	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1008	2376276	5
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0759	2376276	6
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	7
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1554	2377896	8

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06 Project: GPCC00101  
Sample ID: 608969003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	1.80	1.45	4.00	mg/L			EK1	02/10/23	1530	2382211	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 4500-S (2-) D	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I	Project: GPCC00101
Sample ID: 608969004	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 14:25	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.39			SU			EOS1	01/30/23	1425	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/30/23	1425	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		9.46	0.0670	0.200	mg/L		1	JLD1	01/31/23	1235	2376273	3
Fluoride		0.297	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		618	26.6	80.0	mg/L		200	JLD1	01/31/23	2154	2376273	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0951	2376750	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		102	0.400	1.00	mg/L	1.00	5	SKJ	02/10/23	1649	2376276	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1743	2376276	7
Beryllium		0.000787	0.000200	0.000500	mg/L	1.00	1					
Potassium		6.19	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Magnesium		64.6	0.0500	0.150	mg/L	1.00	5	SKJ	02/14/23	0827	2376276	8
Boron		0.554	0.0260	0.0750	mg/L	1.00	5	PRB	02/14/23	1010	2376276	9
Manganese		27.9	0.100	0.500	mg/L	1.00	100	SKJ	02/10/23	1612	2376276	10
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2024	2376276	11
Barium		0.0220	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00132	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.151	0.000300	0.00100	mg/L	1.00	1					
Iron		0.588	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0359	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium		23.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I Project: GPCC00101  
Sample ID: 608969004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		898	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	12
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1555	2377896	13
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		13.2	1.45	4.00	mg/L			EK1	02/10/23	1531	2382211	14
Bicarbonate alkalinity (CaCO3)		13.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 7470A		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SW846 3005A/6020B		
12	SM 2540C		
13	SM 4500-S (2-) D		
14	SM 2320B		

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I  
Sample ID: 608969004

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD03	Project: GPCC00101
Sample ID: 608969005	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 12:00	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	01/31/23	1306	2376273	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		717	26.6	80.0	mg/L		200	JLD1	01/31/23	2225	2376273	2
Chloride		9.86	0.335	1.00	mg/L		5	JLD1	01/31/23	2256	2376273	3
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0957	2376750	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2028	2376276	5
Barium		0.0232	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00114	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.440	0.000300	0.00100	mg/L	1.00	1					
Iron		0.534	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00711	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000251	0.000200	0.00100	mg/L	1.00	1					
Sodium		29.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		124	0.400	1.00	mg/L	1.00	5	SKJ	02/10/23	1651	2376276	6
Manganese		33.0	0.100	0.500	mg/L	1.00	100	SKJ	02/10/23	1614	2376276	7
Arsenic	J	0.00201	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1746	2376276	8
Beryllium	J	0.000291	0.000200	0.000500	mg/L	1.00	1					
Potassium		10.4	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Magnesium		72.7	0.0500	0.150	mg/L	1.00	5	SKJ	02/14/23	0829	2376276	9
Boron		0.585	0.0260	0.0750	mg/L	1.00	5	PRB	02/14/23	1011	2376276	10
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		1010	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1148	2376122	12

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD03	Project: GPCC00101
Sample ID: 608969005	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		16.8	1.45	4.00	mg/L			EK1	02/10/23	1533	2382211	13
Bicarbonate alkalinity (CaCO3)		16.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I	Project: GPCC00101
Sample ID: 608969006	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 13:40	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.66			SU			EOS1	01/30/23	1340	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/30/23	1340	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		280	3.33	10.0	mg/L		25	JLD1	02/01/23	0028	2376273	3
Chloride		7.18	0.0670	0.200	mg/L		1	JLD1	01/31/23	1337	2376273	4
Fluoride		0.230	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0958	2376750	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1749	2376276	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium		7.95	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Manganese		6.47	0.0100	0.0500	mg/L	1.00	10	SKJ	02/10/23	1617	2376276	7
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2032	2376276	8
Barium		0.0220	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		49.8	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0280	0.000300	0.00100	mg/L	1.00	1					
Iron		0.991	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00660	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000803	0.000200	0.00100	mg/L	1.00	1					
Sodium		18.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.820	0.0520	0.150	mg/L	1.00	10	PRB	02/14/23	1013	2376276	9
Magnesium		38.2	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0835	2376276	10
<b>Solids Analysis</b>												



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I Project: GPCC00101  
Sample ID: 608969006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		448	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1148	2376122	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		26.4	1.45	4.00	mg/L			EK1	02/10/23	1538	2382211	13
Bicarbonate alkalinity (CaCO3)		26.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-63I	Project:	GPCC00101
Sample ID:	608969006	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I	Project: GPCC00101
Sample ID: 608969007	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 13:00	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.38			SU			EOS1	01/30/23	1300	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0.5			mg/L			EOS1	01/30/23	1300	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		9.85	0.335	1.00	mg/L		5	JLD1	02/01/23	0059	2376273	3
Fluoride		0.161	0.0330	0.100	mg/L		1	JLD1	01/31/23	1408	2376273	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		647	13.3	40.0	mg/L		100	JLD1	02/01/23	0130	2376273	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	1000	2376750	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Manganese		32.6	0.100	0.500	mg/L	1.00	100	SKJ	02/10/23	1620	2376276	7
Magnesium		68.9	0.0500	0.150	mg/L	1.00	5	SKJ	02/14/23	0831	2376276	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1751	2376276	9
Beryllium	J	0.000293	0.000200	0.000500	mg/L	1.00	1					
Potassium		10.2	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		0.561	0.0260	0.0750	mg/L	1.00	5	PRB	02/14/23	1015	2376276	10
Calcium		124	0.400	1.00	mg/L	1.00	5	SKJ	02/10/23	1700	2376276	11
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2035	2376276	12
Barium		0.0230	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00107	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.425	0.000300	0.00100	mg/L	1.00	1					
Iron		0.516	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00661	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000247	0.000200	0.00100	mg/L	1.00	1					
Sodium		27.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I Project: GPCC00101  
Sample ID: 608969007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1020	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	13
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1149	2376122	14
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		17.0	1.45	4.00	mg/L			EK1	02/10/23	1540	2382211	15
Bicarbonate alkalinity (CaCO3)		17.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SW846 3005A/6020B	
13	SM 2540C	
14	SM 4500-S (2-) D	
15	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I  
Sample ID: 608969007

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51S	Project: GPCC00101
Sample ID: 608969008	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 15:30	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.18			SU			EOS1	01/30/23	1530	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/30/23	1530	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.45	0.0670	0.200	mg/L		1	JLD1	01/31/23	1438	2376273	3
Fluoride	J	0.0983	0.0330	0.100	mg/L		1					
Nitrate-N		1.87	0.0330	0.100	mg/L		1					
Sulfate		0.733	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	1002	2376750	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		10.0	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0806	2376276	5
Boron	J	0.0102	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1017	2376276	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1703	2376276	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium		2.46	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2039	2376276	8
Barium		0.0230	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		7.87	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00115	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0375	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium		12.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.994	0.00500	0.0250	mg/L	1.00	5	SKJ	02/10/23	1623	2376276	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51S Project: GPCC00101  
Sample ID: 608969008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		70.0	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1149	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		68.0	1.45	4.00	mg/L			EK1	02/10/23	1542	2382211	12
Bicarbonate alkalinity (CaCO3)		68.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-51S	Project:	GPCC00101
Sample ID:	608969008	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I	Project: GPCC00101
Sample ID: 608969009	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 17:00	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.33			SU			EOS1	01/30/23	1700	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/30/23	1700	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		40.7	0.670	2.00	mg/L		10	JLD1	02/01/23	0201	2376273	3
Fluoride	J	0.0767	0.0330	0.100	mg/L		1	JLD1	01/31/23	1611	2376273	4
Nitrate-N		1.01	0.0330	0.100	mg/L		1					
Sulfate		2800	66.5	200	mg/L		500	JLD1	02/01/23	0334	2376273	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	1003	2376750	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.0150	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1019	2376276	7
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2042	2376276	8
Barium		0.0254	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00126	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		2.85	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0187	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000201	0.000200	0.00100	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		68.5	0.400	1.25	mg/L	1.00	5	SKJ	02/10/23	1711	2376276	9
Magnesium		288	0.100	0.300	mg/L	1.00	10	SKJ	02/14/23	0833	2376276	10
Calcium		372	0.800	2.00	mg/L	1.00	10	SKJ	02/10/23	1709	2376276	11
Manganese		388	0.500	2.50	mg/L	1.00	500	SKJ	02/10/23	1626	2376276	12
Cobalt		11.0	0.00600	0.0200	mg/L	1.00	20	SKJ	02/10/23	1706	2376276	13
Arsenic		0.0103	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1754	2376276	14
Beryllium		0.00116	0.000200	0.000500	mg/L	1.00	1					
Potassium		14.5	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0292	0.00150	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I Project: GPCC00101  
Sample ID: 608969009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4260	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	15
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1555	2377896	16
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		37.4	1.45	4.00	mg/L			EK1	02/10/23	1543	2382211	17
Bicarbonate alkalinity (CaCO3)		37.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SW846 3005A/6020B	
13	SW846 3005A/6020B	
14	SW846 3005A/6020B	
15	SM 2540C	
16	SM 4500-S (2-) D	
17	SM 2320B	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I  
Sample ID: 608969009

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D	Project: GPCC00101
Sample ID: 609212001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-FEB-23 14:16	
Receive Date: 02-FEB-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.28			SU			EOS1	02/01/23	1416	2377722	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	02/01/23	1416	2377722	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		12.7	1.34	4.00	mg/L		20	HXC1	02/03/23	0052	2377739	3
Sulfate		258	2.66	8.00	mg/L		20					
Fluoride		0.166	0.0330	0.100	mg/L		1	HXC1	02/02/23	1654	2377739	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/07/23	1203	2378878	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	J	0.00176	0.00100	0.00300	mg/L	1.00	1	BAJ	02/05/23	1809	2377747	6
Arsenic		0.00580	0.00200	0.00500	mg/L	1.00	1					
Barium		0.145	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000825	0.000300	0.00100	mg/L	1.00	1					
Iron		0.405	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00899	0.00300	0.0100	mg/L	1.00	1					
Magnesium		21.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.809	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.0111	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.56	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		49.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	02/06/23	1648	2377747	7
Boron		0.255	0.0260	0.0750	mg/L	1.00	5	BAJ	02/06/23	1627	2377747	8
Calcium		86.1	0.400	1.00	mg/L	1.00	5					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D	Project: GPCC00101
Sample ID: 609212001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		525	2.38	10.0	mg/L			CH6	02/08/23	1114	2379677	9
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1606	2377896	10
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		117	1.45	4.00	mg/L			EK1	02/13/23	1136	2382489	11
Bicarbonate alkalinity (CaCO3)		117	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/06/23	1118	2378875
SW846 3005A	ICP-MS 3005A PREP	LG2	02/03/23	0800	2377746

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D  
Sample ID: 609212001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I Project: GPCC00101  
Sample ID: 609212002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-FEB-23 12:47  
Receive Date: 02-FEB-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.18			SU			EOS1	02/01/23	1247	2377722	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	02/01/23	1247	2377722	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		275	2.66	8.00	mg/L		20	HXC1	02/03/23	0122	2377739	3
Chloride		5.80	0.0670	0.200	mg/L		1	HXC1	02/02/23	1724	2377739	4
Fluoride	J	0.0963	0.0330	0.100	mg/L		1					
Nitrate-N		0.144	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/07/23	1205	2378878	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	02/06/23	1650	2377747	6
Boron		1.29	0.0520	0.150	mg/L	1.00	10	BAJ	02/06/23	1629	2377747	7
Calcium		69.5	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	02/05/23	1813	2377747	8
Arsenic	J	0.00349	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0253	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00338	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000668	0.000300	0.00100	mg/L	1.00	1					
Iron		0.438	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00392	0.00300	0.0100	mg/L	1.00	1					
Magnesium		29.4	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0548	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.38	0.0800	0.300	mg/L	1.00	1					
Selenium		0.196	0.00150	0.00500	mg/L	1.00	1					
Sodium		28.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I	Project: GPCC00101
Sample ID: 609212002	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		441	2.38	10.0	mg/L			CH6	02/08/23	1114	2379677	9
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1606	2377896	10
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		25.6	1.45	4.00	mg/L			EK1	02/13/23	1146	2382489	11
Bicarbonate alkalinity (CaCO3)		25.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	02/03/23	0800	2377746
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/06/23	1118	2378875

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I  
Sample ID: 609212002

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## QC Summary

Report Date: February 24, 2023

Page 1 of 13

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608803

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2375330										
QC1205306398	608658011	DUP									
Chloride		15.3		15.3	mg/L	0.281		(0%-20%)	JLD1	01/28/23	00:12
Fluoride		0.163		0.161	mg/L	1.6	^	(+/-0.100)		01/27/23	23:41
Nitrate-N		0.724		0.724	mg/L	0.0829		(0%-20%)			
Sulfate		138		138	mg/L	0.105		(0%-20%)		01/28/23	00:12
QC1205306397	LCS										
Chloride	5.00			5.00	mg/L			100 (90%-110%)		01/27/23	22:09
Fluoride	2.50			2.55	mg/L			102 (90%-110%)			
Nitrate-N	2.50			2.48	mg/L			99.2 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205306396	MB										
Chloride			U	ND	mg/L					01/27/23	21:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205306399	608658011	PS									
Chloride	5.00	1.53		6.58	mg/L			101 (90%-110%)		01/28/23	01:14

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## QC Summary

Workorder: 608803

Page 2 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2375330										
Fluoride	2.50	0.163		2.63	mg/L		98.8	(90%-110%)	JLD1	01/28/23	01:45
Nitrate-N	2.50	0.724		3.18	mg/L		98.3	(90%-110%)			
Sulfate	10.0	13.8		24.4	mg/L		106	(90%-110%)		01/28/23	01:14
Batch	2375336										
QC1205306403	608803015 DUP										
Chloride		11.5		11.5	mg/L	0.0261		(0%-20%)	JLD1	01/28/23	08:37
Fluoride	J	0.151	J	0.156	mg/L	3.13 ^		(+/-0.200)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				01/27/23	23:53
Sulfate		885		891	mg/L	0.706		(0%-20%)		01/28/23	10:10
QC1205306402	LCS										
Chloride	5.00			4.88	mg/L		97.7	(90%-110%)		01/27/23	22:21
Fluoride	2.50			2.55	mg/L		102	(90%-110%)			
Nitrate-N	2.50			2.49	mg/L		99.4	(90%-110%)			
Sulfate	10.0			10.1	mg/L		101	(90%-110%)			
QC1205306401	MB										
Chloride			U	ND	mg/L					01/27/23	21:50
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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## QC Summary

Workorder: 608803

Page 3 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2375336										
Sulfate			U	ND	mg/L				JLD1	01/27/23	21:50
QC1205306404	608803015 PS										
Chloride	5.00	5.74		11.3	mg/L		111 *	(90%-110%)		01/28/23	09:08
Fluoride	2.50	J	0.0754	2.65	mg/L		103	(90%-110%)			
Nitrate-N	2.50	U	ND	2.43	mg/L		97.1	(90%-110%)		01/28/23	00:24
Sulfate	10.0	8.85		19.1	mg/L		102	(90%-110%)		01/28/23	10:41
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
QC1205306363	LCS										
Antimony	0.0500			0.0505	mg/L		101	(80%-120%)	PRB	02/04/23	19:39
Arsenic	0.0500			0.0491	mg/L		98.3	(80%-120%)			
Barium	0.0500			0.0532	mg/L		106	(80%-120%)			
Beryllium	0.0500			0.0576	mg/L		115	(80%-120%)			
Boron	0.100			0.109	mg/L		109	(80%-120%)			
Cadmium	0.0500			0.0511	mg/L		102	(80%-120%)			
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0502	mg/L		100	(80%-120%)			
Cobalt	0.0500			0.0504	mg/L		101	(80%-120%)			

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## *QC Summary*

Workorder: 608803

Page 4 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Iron	2.00			1.99	mg/L		99.3	(80%-120%)	PRB	02/04/23	19:39
Lead	0.0500			0.0517	mg/L		103	(80%-120%)			
Lithium	0.0500			0.0539	mg/L		108	(80%-120%)			
Magnesium	2.00			2.27	mg/L		113	(80%-120%)			
Manganese	0.0500			0.0492	mg/L		98.5	(80%-120%)			
Molybdenum	0.0500			0.0520	mg/L		104	(80%-120%)			
Potassium	2.00			2.12	mg/L		106	(80%-120%)			
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.15	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0500	mg/L		100	(80%-120%)			
QC1205306362	MB										
Antimony			U	ND	mg/L					02/04/23	19:35
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						

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## QC Summary

Workorder: 608803

Page 5 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Cadmium			U	ND	mg/L				PRB	02/04/23	19:35
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			J	0.000280	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205306364 608803001 MS											
Antimony	0.0500	U	ND	0.0527	mg/L		105	(75%-125%)		02/04/23	21:49

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## *QC Summary*

Workorder: 608803

Page 6 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Arsenic	0.0500	U	ND	0.0518	mg/L		102	(75%-125%)	PRB	02/04/23	21:49
Barium	0.0500		0.0293	0.0815	mg/L		104	(75%-125%)			
Beryllium	0.0500	U	ND	0.0598	mg/L		119	(75%-125%)			
Boron	0.100		1.45	1.59	mg/L		N/A	(75%-125%)		02/04/23	19:46
Cadmium	0.0500	U	ND	0.0520	mg/L		104	(75%-125%)		02/04/23	21:49
Calcium	2.00		57.6	60.9	mg/L		N/A	(75%-125%)		02/04/23	19:46
Chromium	0.0500	U	ND	0.0515	mg/L		103	(75%-125%)		02/04/23	21:49
Cobalt	0.0500		0.00320	0.0540	mg/L		102	(75%-125%)			
Iron	2.00		0.453	2.54	mg/L		105	(75%-125%)			
Lead	0.0500	U	ND	0.0512	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND	0.0564	mg/L		112	(75%-125%)			
Magnesium	2.00		22.7	25.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500		1.71	1.78	mg/L		N/A	(75%-125%)		02/04/23	19:46
Molybdenum	0.0500	J	0.000920	0.0558	mg/L		110	(75%-125%)		02/04/23	21:49
Potassium	2.00		4.59	6.74	mg/L		108	(75%-125%)			

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## QC Summary

Workorder: 608803

Page 7 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Selenium	0.0500	U	ND	0.0523	mg/L		104	(75%-125%)	PRB	02/04/23	21:49
Sodium	2.00		17.8	20.4	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0502	mg/L		100	(75%-125%)			
QC1205306365	608803001 MSD										
Antimony	0.0500	U	ND	0.0529	mg/L	0.519	106	(0%-20%)		02/04/23	21:52
Arsenic	0.0500	U	ND	0.0522	mg/L	0.893	103	(0%-20%)			
Barium	0.0500		0.0293	0.0811	mg/L	0.463	104	(0%-20%)			
Beryllium	0.0500	U	ND	0.0574	mg/L	4.05	115	(0%-20%)			
Boron	0.100		1.45	1.63	mg/L	2.49	N/A	(0%-20%)		02/04/23	19:50
Cadmium	0.0500	U	ND	0.0522	mg/L	0.543	104	(0%-20%)		02/04/23	21:52
Calcium	2.00		57.6	61.8	mg/L	1.43	N/A	(0%-20%)		02/04/23	19:50
Chromium	0.0500	U	ND	0.0506	mg/L	1.74	101	(0%-20%)		02/04/23	21:52
Cobalt	0.0500		0.00320	0.0542	mg/L	0.233	102	(0%-20%)			
Iron	2.00		0.453	2.55	mg/L	0.342	105	(0%-20%)			
Lead	0.0500	U	ND	0.0511	mg/L	0.202	102	(0%-20%)			
Lithium	0.0500	U	ND	0.0544	mg/L	3.58	108	(0%-20%)			



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## QC Summary

Workorder: 608803

Page 8 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Magnesium	2.00	22.7		24.8	mg/L	1.54	N/A	(0%-20%)	PRB	02/04/23	21:52
Manganese	0.0500	1.71		1.78	mg/L	0.202	N/A	(0%-20%)		02/04/23	19:50
Molybdenum	0.0500	J	0.000920	0.0556	mg/L	0.248	109	(0%-20%)		02/04/23	21:52
Potassium	2.00	4.59		6.62	mg/L	1.84	102	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	2.14	102	(0%-20%)			
Sodium	2.00	17.8		20.0	mg/L	1.95	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0511	mg/L	1.89	102	(0%-20%)			
QC1205306366 608803001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/04/23	22:00
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium		29.3		5.91	ug/L	.922		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron		72.3		16.6	ug/L	15.1		(0%-20%)		02/04/23	19:53
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/04/23	22:00
Calcium		2880		565	ug/L	1.98		(0%-20%)		02/04/23	19:53
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/04/23	22:00

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## QC Summary

Workorder: 608803

Page 9 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Cobalt		3.20	J	0.661	ug/L	3.25		(0%-20%)	PRB	02/04/23	22:00
Iron		453	J	92.5	ug/L	2.09		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		22700		4780	ug/L	5.34		(0%-20%)			
Manganese		85.3		16.3	ug/L	4.25		(0%-20%)		02/04/23	19:53
Molybdenum	J	0.920	J	0.258	ug/L	40.2		(0%-20%)		02/04/23	22:00
Potassium		4590		914	ug/L	.409		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		17800		3620	ug/L	1.62		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2375754										
QC1205307096	608803003	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/31/23	10:21
QC1205307095	LCS										
Mercury		0.00200		0.00211	mg/L		105	(80%-120%)		01/31/23	10:11
QC1205307094	MB										
Mercury			U	ND	mg/L					01/31/23	10:09

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## QC Summary

Workorder: 608803

Page 10 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch 2375754											
QC1205307097	608803003	MS									
Mercury	0.00200	U	ND	0.00180	mg/L		90	(75%-125%)	JP2	01/31/23	10:22
QC1205307098	608803003	SDILT									
Mercury		U	ND	ND	ug/L	N/A		(0%-10%)		01/31/23	10:24
<b>Solids Analysis</b>											
Batch 2376741											
QC1205308819	608803009	DUP									
Total Dissolved Solids			693	693	mg/L	0		(0%-5%)	CH6	02/01/23	13:05
QC1205308817	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		02/01/23	13:05
QC1205308816	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	13:05
Batch 2377347											
QC1205309759	608803013	DUP									
Total Dissolved Solids			2280	2240	mg/L	1.68		(0%-5%)	CH6	02/02/23	14:28
QC1205309760	608969004	DUP									
Total Dissolved Solids			898	882	mg/L	1.8		(0%-5%)		02/02/23	14:28
QC1205309758	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/02/23	14:28
QC1205309757	MB										
Total Dissolved Solids			U	ND	mg/L					02/02/23	14:28
<b>Spectrometric Analysis</b>											
Batch 2375859											
QC1205307355	LCS										
Total Sulfide	0.400			0.400	mg/L		99.9	(85%-115%)	HH2	01/31/23	16:57

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## QC Summary

Workorder: 608803

Page 11 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch 2375859											
QC1205307354		MB									
Total Sulfide			U	ND	mg/L				HH2	01/31/23	16:57
QC1205307356	608803001	PS									
Total Sulfide	0.400	U	ND	0.281	mg/L		67.5*	(75%-125%)		01/31/23	16:57
QC1205307357	608803001	PSD									
Total Sulfide	0.400	U	ND	0.290	mg/L	3.05	69.7*	(0%-15%)		01/31/23	16:57
Batch 2376122											
QC1205307836		LCS									
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	HH2	02/02/23	11:42
QC1205307835		MB									
Total Sulfide			U	ND	mg/L					02/02/23	11:42
QC1205307839	608815006	PS									
Total Sulfide	0.400	U	ND	0.367	mg/L		86.7	(75%-125%)		02/02/23	11:47
QC1205307840	608815006	PSD									
Total Sulfide	0.400	U	ND	0.374	mg/L	1.88	88.4	(0%-15%)		02/02/23	11:48
<b>Titration and Ion Analysis</b>											
Batch 2378066											
QC1205311156	608803001	DUP									
Alkalinity, Total as CaCO3			82.8	83.4	mg/L	0.722		(0%-20%)	EK1	02/06/23	13:02
Bicarbonate alkalinity (CaCO3)			82.8	83.4	mg/L	0.722		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205311155	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		02/06/23	12:49

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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 608803

Page 12 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2378066										
QC1205311157	608803001	MS									
Alkalinity, Total as CaCO3	100	82.8		185	mg/L		102	(80%-120%)	EK1	02/06/23	13:31
<hr/>											
Batch	2378067										
QC1205313003	608803012	DUP									
Alkalinity, Total as CaCO3		6.00		6.20	mg/L	3.28 ^		(+/-4.00)	EK1	02/06/23	14:58
Bicarbonate alkalinity (CaCO3)		6.00		6.20	mg/L	3.28 ^		(+/-4.00)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205311158	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/06/23	14:46
QC1205313004	608803012	MS									
Alkalinity, Total as CaCO3	100	6.00		107	mg/L		101	(80%-120%)		02/06/23	15:03

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 608803

Page 13 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

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## QC Summary

Report Date: February 24, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 609212

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2377739										
QC1205310455	609211001	DUP									
Chloride		7.41		7.44	mg/L	0.473		(0%-20%)	HXC1	02/02/23	19:53
Fluoride		0.227		0.225	mg/L	0.929	^	(+/-0.100)			
Nitrate-N		0.662		0.656	mg/L	0.987	^	(+/-0.500)		02/02/23	23:52
Sulfate		160		171	mg/L	6.74		(0%-20%)		02/02/23	22:23
QC1205310454	LCS										
Chloride	5.00			4.84	mg/L			96.9 (90%-110%)		02/02/23	19:23
Fluoride	2.50			2.62	mg/L			105 (90%-110%)			
Nitrate-N	2.50			2.49	mg/L			99.5 (90%-110%)			
Sulfate	10.0			10.1	mg/L			101 (90%-110%)			
QC1205310453	MB										
Chloride			U	ND	mg/L					02/02/23	18:54
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205310456	609211001	PS									
Chloride	5.00	7.41		13.1	mg/L			114* (90%-110%)		02/02/23	20:23

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## QC Summary

Workorder: 609212

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2377739										
Fluoride	2.50	0.227		2.77	mg/L		102	(90%-110%)	HXC1	02/02/23	20:23
Nitrate-N	2.50	0.132		2.52	mg/L		95.7	(90%-110%)		02/03/23	00:22
Sulfate	10.0	8.01		18.7	mg/L		107	(90%-110%)		02/02/23	22:52
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
QC1205310468	LCS										
Antimony	0.0500			0.0503	mg/L		101	(80%-120%)	BAJ	02/05/23	17:48
Arsenic	0.0500			0.0511	mg/L		102	(80%-120%)			
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)			
Beryllium	0.0500			0.0583	mg/L		117	(80%-120%)		02/06/23	16:17
Boron	0.100			0.111	mg/L		111	(80%-120%)			
Cadmium	0.0500			0.0523	mg/L		105	(80%-120%)		02/05/23	17:48
Calcium	2.00			2.24	mg/L		112	(80%-120%)		02/06/23	16:17
Chromium	0.0500			0.0509	mg/L		102	(80%-120%)		02/05/23	17:48
Cobalt	0.0500			0.0505	mg/L		101	(80%-120%)			
Iron	2.00			1.95	mg/L		97.3	(80%-120%)			
Lead	0.0500			0.0515	mg/L		103	(80%-120%)			



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## *QC Summary*

Workorder: 609212

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Lithium	0.0500			0.0565	mg/L		113	(80%-120%)	BAJ	02/05/23	17:48
Magnesium	2.00			2.02	mg/L		101	(80%-120%)			
Manganese	0.0500			0.0504	mg/L		101	(80%-120%)			
Molybdenum	0.0500			0.0510	mg/L		102	(80%-120%)			
Potassium	2.00			1.84	mg/L		91.9	(80%-120%)			
Selenium	0.0500			0.0520	mg/L		104	(80%-120%)			
Sodium	2.00			2.29	mg/L		114	(80%-120%)			
Thallium	0.0500			0.0512	mg/L		102	(80%-120%)			
QC1205310467	MB										
Antimony			U	ND	mg/L					02/05/23	17:44
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/06/23	16:15
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/05/23	17:44
Calcium			U	ND	mg/L					02/06/23	16:15

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## QC Summary

Workorder: 609212

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Chromium			U	ND	mg/L				BAJ	02/05/23	17:44
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205310469 609211001 MS											
Antimony	0.0500	0.0125		0.0618	mg/L		98.5	(75%-125%)		02/05/23	17:55
Arsenic	0.0500	0.374		0.429	mg/L		N/A	(75%-125%)			
Barium	0.0500	0.164		0.215	mg/L		101	(75%-125%)			

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## QC Summary

Workorder: 609212

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Beryllium	0.0500	U	ND	0.0564	mg/L		113	(75%-125%)	BAJ	02/06/23	16:39
Boron	0.100		1.52	1.74	mg/L		N/A	(75%-125%)		02/06/23	16:21
Cadmium	0.0500	U	ND	0.0500	mg/L		99.8	(75%-125%)		02/05/23	17:55
Calcium	2.00		168	185	mg/L		N/A	(75%-125%)		02/06/23	16:21
Chromium	0.0500	U	ND	0.0492	mg/L		96.9	(75%-125%)		02/05/23	17:55
Cobalt	0.0500		0.00123	0.0493	mg/L		96.1	(75%-125%)			
Iron	2.00		1.08	3.08	mg/L		100	(75%-125%)			
Lead	0.0500	U	ND	0.0473	mg/L		94.2	(75%-125%)			
Lithium	0.0500		0.305	0.370	mg/L		N/A	(75%-125%)			
Magnesium	2.00		17.7	20.1	mg/L		N/A	(75%-125%)			
Manganese	0.0500		0.0654	0.116	mg/L		101	(75%-125%)			
Molybdenum	0.0500		0.0781	0.133	mg/L		109	(75%-125%)			
Potassium	2.00		12.0	14.5	mg/L		N/A	(75%-125%)			
Selenium	0.0500		0.0305	0.0816	mg/L		102	(75%-125%)			
Sodium	2.00		20.4	23.4	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 609212

Page 6 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Thallium	0.0500	J	0.00144	0.0497	mg/L		96.6	(75%-125%)	BAJ	02/05/23	17:55
QC1205310470 609211001 MSD											
Antimony	0.0500		0.0125	0.0620	mg/L	0.401	99	(0%-20%)		02/05/23	17:58
Arsenic	0.0500		0.374	0.431	mg/L	0.431	N/A	(0%-20%)			
Barium	0.0500		0.164	0.214	mg/L	0.484	99.1	(0%-20%)			
Beryllium	0.0500	U	ND	0.0549	mg/L	2.62	110	(0%-20%)		02/06/23	16:41
Boron	0.100		1.52	1.75	mg/L	0.244	N/A	(0%-20%)		02/06/23	16:23
Cadmium	0.0500	U	ND	0.0500	mg/L	0.088	99.7	(0%-20%)		02/05/23	17:58
Calcium	2.00		168	186	mg/L	0.00965	N/A	(0%-20%)		02/06/23	16:23
Chromium	0.0500	U	ND	0.0496	mg/L	0.931	97.8	(0%-20%)		02/05/23	17:58
Cobalt	0.0500		0.00123	0.0491	mg/L	0.396	95.7	(0%-20%)			
Iron	2.00		1.08	3.05	mg/L	1.05	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0477	mg/L	0.895	95.1	(0%-20%)			
Lithium	0.0500		0.305	0.375	mg/L	1.54	N/A	(0%-20%)			
Magnesium	2.00		17.7	19.9	mg/L	0.818	N/A	(0%-20%)			
Manganese	0.0500		0.0654	0.114	mg/L	1.61	97.5	(0%-20%)			

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## QC Summary

Workorder: 609212

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Molybdenum	0.0500	0.0781		0.132	mg/L	0.151	109	(0%-20%)	BAJ	02/05/23	17:58
Potassium	2.00	12.0		14.4	mg/L	0.568	N/A	(0%-20%)			
Selenium	0.0500	0.0305		0.0831	mg/L	1.78	105	(0%-20%)			
Sodium	2.00	20.4		22.9	mg/L	2.07	N/A	(0%-20%)			
Thallium	0.0500	J 0.00144		0.0500	mg/L	0.573	97.2	(0%-20%)			
QC1205310471 609211001 SDILT											
Antimony		12.5	J	2.68	ug/L	7.07		(0%-20%)		02/05/23	18:06
Arsenic		374		71.3	ug/L	4.57		(0%-20%)			
Barium		164		32.3	ug/L	1.58		(0%-20%)			
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/06/23	16:45
Boron		75.9		17.1	ug/L	12.5		(0%-20%)		02/06/23	16:25
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/05/23	18:06
Calcium		8410		1740	ug/L	3.47		(0%-20%)		02/06/23	16:25
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/05/23	18:06
Cobalt		1.23	U	ND	ug/L	N/A		(0%-20%)			
Iron		1080		226	ug/L	4.69		(0%-20%)			

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## QC Summary

Workorder: 609212

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	02/05/23	18:06
Lithium		305		58.2	ug/L	4.46		(0%-20%)			
Magnesium		17700		3080	ug/L	12.8		(0%-20%)			
Manganese		65.4		13.6	ug/L	4.21		(0%-20%)			
Molybdenum		78.1		14.8	ug/L	5.25		(0%-20%)			
Potassium		12000		2170	ug/L	9.63		(0%-20%)			
Selenium		30.5		6.13	ug/L	.502		(0%-20%)			
Sodium		20400		3970	ug/L	2.98		(0%-20%)			
Thallium	J	1.44	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2378878										
QC1205312143	609438010	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	02/07/23	12:21
QC1205312142	LCS										
Mercury	0.00200			0.00209	mg/L		105	(80%-120%)		02/07/23	12:01
QC1205312141	MB										
Mercury			U	ND	mg/L					02/07/23	12:00
QC1205312144	609438010	MS									
Mercury	0.00200	U	ND	0.00200	mg/L		100	(75%-125%)		02/07/23	12:22

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## QC Summary

Workorder: 609212

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2378878										
QC1205312145	609438010	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	02/07/23	12:24
<b>Solids Analysis</b>											
Batch	2379677										
QC1205313479	609435002	DUP									
Total Dissolved Solids		857		820	mg/L	4.37		(0%-5%)	CH6	02/08/23	11:14
QC1205314103	609211001	DUP									
Total Dissolved Solids		597		602	mg/L	0.834		(0%-5%)		02/08/23	11:14
QC1205313478	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/08/23	11:14
QC1205313477	MB										
Total Dissolved Solids			U	ND	mg/L					02/08/23	11:14
<b>Spectrometric Analysis</b>											
Batch	2377896										
QC1205310860	LCS										
Total Sulfide	0.400			0.408	mg/L		102	(85%-115%)	HH2	02/06/23	15:53
QC1205310859	MB										
Total Sulfide			U	ND	mg/L					02/06/23	15:53
QC1205310863	609152001	PS									
Total Sulfide	0.400	U	ND	0.183	mg/L		45.7*	(75%-125%)		02/06/23	16:02
QC1205310864	609152001	PSD									
Total Sulfide	0.400	U	ND	0.188	mg/L	2.89	47*	(0%-15%)		02/06/23	16:03

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## QC Summary

Workorder: 609212

Page 10 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2382489										
QC1205318636	609152001	DUP									
Alkalinity, Total as CaCO3		143		143	mg/L	0.14		(0%-20%)	EK1	02/13/23	10:31
Bicarbonate alkalinity (CaCO3)		143		143	mg/L	0.14		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205319654	609212001	DUP									
Alkalinity, Total as CaCO3		117		118	mg/L	0.17		(0%-20%)		02/13/23	11:40
Bicarbonate alkalinity (CaCO3)		117		118	mg/L	0.17		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205318635	LCS										
Alkalinity, Total as CaCO3	100			105	mg/L		105	(90%-110%)		02/13/23	10:24
QC1205318637	609152001	MS									
Alkalinity, Total as CaCO3	100	143		247	mg/L		104	(80%-120%)		02/13/23	10:34
QC1205319655	609212001	MS									
Alkalinity, Total as CaCO3	100	117		222	mg/L		105	(80%-120%)		02/13/23	11:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 609212

Page 11 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: February 24, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608969

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2376273										
QC1205308090	608969009	DUP									
Chloride		40.7		40.7	mg/L	0.0246		(0%-20%)	JLD1	02/01/23	02:32
Fluoride	J	0.0767	J	0.0736	mg/L	4.13	^	(+/-0.100)		01/31/23	17:47
Nitrate-N		1.01		1.10	mg/L	7.77		(0%-20%)			
Sulfate		2800		2900	mg/L	3.59		(0%-20%)		02/01/23	04:05
QC1205308089	LCS										
Chloride	5.00			4.95	mg/L			99.1 (90%-110%)		01/31/23	10:32
Fluoride	2.50			2.48	mg/L			99.2 (90%-110%)			
Nitrate-N	2.50			2.45	mg/L			98 (90%-110%)			
Sulfate	10.0			9.94	mg/L			99.4 (90%-110%)			
QC1205308088	MB										
Chloride			U	ND	mg/L					01/31/23	10:02
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205308091	608969009	PS									
Chloride	5.00	4.07		9.53	mg/L			109 (90%-110%)		02/01/23	03:03

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## QC Summary

Workorder: 608969

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2376273										
Fluoride	2.50	J	0.0767	2.40	mg/L		93	(90%-110%)	JLD1	01/31/23	18:18
Nitrate-N	2.50		1.01	3.67	mg/L		106	(90%-110%)			
Sulfate	10.0		5.60	15.6	mg/L		100	(90%-110%)		02/01/23	04:35
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
QC1205308094	LCS										
Antimony	0.0500			0.0500	mg/L		100	(80%-120%)	SKJ	02/09/23	19:49
Arsenic	0.0500			0.0522	mg/L		104	(80%-120%)		02/10/23	15:46
Barium	0.0500			0.0489	mg/L		97.9	(80%-120%)		02/09/23	19:49
Beryllium	0.0500			0.0574	mg/L		115	(80%-120%)		02/10/23	15:46
Boron	0.100			0.102	mg/L		102	(80%-120%)	PRB	02/14/23	09:51
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)	SKJ	02/09/23	19:49
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0503	mg/L		101	(80%-120%)			
Cobalt	0.0500			0.0495	mg/L		98.9	(80%-120%)			
Iron	2.00			2.03	mg/L		101	(80%-120%)			
Lead	0.0500			0.0506	mg/L		101	(80%-120%)			

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## *QC Summary*

Workorder: 608969

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Lithium	0.0500			0.0576	mg/L		115	(80%-120%)	SKJ	02/09/23	19:49
Magnesium	2.00			2.39	mg/L		119	(80%-120%)		02/14/23	08:04
Manganese	0.0500			0.0501	mg/L		100	(80%-120%)		02/09/23	19:49
Molybdenum	0.0500			0.0526	mg/L		105	(80%-120%)			
Potassium	2.00			2.12	mg/L		106	(80%-120%)		02/10/23	15:46
Selenium	0.0500			0.0531	mg/L		106	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)		02/09/23	19:49
Thallium	0.0500			0.0500	mg/L		100	(80%-120%)			
QC1205308093	MB										
Antimony			U	ND	mg/L					02/09/23	19:45
Arsenic			U	ND	mg/L					02/10/23	15:43
Barium			U	ND	mg/L					02/09/23	19:45
Beryllium			J	0.000207	mg/L					02/10/23	15:43
Boron			U	ND	mg/L				PRB	02/14/23	09:49
Cadmium			U	ND	mg/L				SKJ	02/09/23	19:45
Calcium			U	ND	mg/L						

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## QC Summary

Workorder: 608969

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Chromium			U	ND	mg/L				SKJ	02/09/23	19:45
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					02/14/23	07:53
Manganese			U	ND	mg/L					02/09/23	19:45
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					02/10/23	15:43
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L					02/09/23	19:45
Thallium			U	ND	mg/L						
QC1205308095 608969001 MS											
Antimony	0.0500	U	ND	0.0482	mg/L		95.8	(75%-125%)		02/09/23	19:56
Arsenic	0.0500		0.00565	0.0563	mg/L		101	(75%-125%)		02/10/23	17:26
Barium	0.0500		0.0284	0.0794	mg/L		102	(75%-125%)		02/09/23	19:56

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## QC Summary

Workorder: 608969

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Beryllium	0.0500	J	0.000318	0.0515	mg/L		102	(75%-125%)	SKJ	02/10/23	17:26
Boron	0.100		0.128	0.219	mg/L		90.5	(75%-125%)	PRB	02/14/23	09:54
Cadmium	0.0500	U	ND	0.0482	mg/L		96.1	(75%-125%)	SKJ	02/10/23	17:26
Calcium	2.00		217	219	mg/L		N/A	(75%-125%)		02/10/23	16:40
Chromium	0.0500	U	ND	0.0510	mg/L		100	(75%-125%)		02/09/23	19:56
Cobalt	0.0500		0.345	0.404	mg/L		N/A	(75%-125%)			
Iron	2.00		17.8	20.5	mg/L		N/A	(75%-125%)			
Lead	0.0500	U	ND	0.0456	mg/L		90.8	(75%-125%)			
Lithium	0.0500		0.0131	0.0720	mg/L		118	(75%-125%)			
Magnesium	2.00		303	306	mg/L		N/A	(75%-125%)		02/14/23	08:16
Manganese	0.0500		109	115	mg/L		N/A	(75%-125%)		02/10/23	15:52
Molybdenum	0.0500	J	0.000675	0.0560	mg/L		111	(75%-125%)		02/09/23	19:56
Potassium	2.00		10.8	13.2	mg/L		N/A	(75%-125%)		02/10/23	17:26
Selenium	0.0500		0.00817	0.0623	mg/L		108	(75%-125%)			
Sodium	2.00		62.9	64.2	mg/L		N/A	(75%-125%)		02/10/23	16:40

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## QC Summary

Workorder: 608969

Page 6 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Thallium	0.0500	U	ND	0.0467	mg/L		93.2	(75%-125%)	SKJ	02/09/23	19:56
QC1205308096 608969001 MSD											
Antimony	0.0500	U	ND	0.0491	mg/L	1.71	97.5	(0%-20%)		02/09/23	19:59
Arsenic	0.0500		0.00565	0.0587	mg/L	4.11	106	(0%-20%)		02/10/23	17:29
Barium	0.0500		0.0284	0.0805	mg/L	1.36	104	(0%-20%)		02/09/23	19:59
Beryllium	0.0500	J	0.000318	0.0527	mg/L	2.33	105	(0%-20%)		02/10/23	17:29
Boron	0.100		0.128	0.222	mg/L	1.59	94	(0%-20%)	PRB	02/14/23	09:56
Cadmium	0.0500	U	ND	0.0500	mg/L	3.75	99.8	(0%-20%)	SKJ	02/10/23	17:29
Calcium	2.00		217	231	mg/L	5.2	N/A	(0%-20%)		02/10/23	16:43
Chromium	0.0500	U	ND	0.0516	mg/L	1.2	102	(0%-20%)		02/09/23	19:59
Cobalt	0.0500		0.345	0.409	mg/L	1.22	N/A	(0%-20%)			
Iron	2.00		17.8	20.6	mg/L	0.871	N/A	(0%-20%)			
Lead	0.0500	U	ND	0.0464	mg/L	1.58	92.3	(0%-20%)			
Lithium	0.0500		0.0131	0.0716	mg/L	0.614	117	(0%-20%)			
Magnesium	2.00		303	323	mg/L	5.48	N/A	(0%-20%)		02/14/23	08:18
Manganese	0.0500		109	115	mg/L	0.68	N/A	(0%-20%)		02/10/23	15:54

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## QC Summary

Workorder: 608969

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Molybdenum	0.0500	J	0.000675	0.0575	mg/L	2.65	114	(0%-20%)	SKJ	02/09/23	19:59
Potassium	2.00		10.8	13.4	mg/L	1.65	N/A	(0%-20%)		02/10/23	17:29
Selenium	0.0500		0.00817	0.0629	mg/L	0.902	109	(0%-20%)			
Sodium	2.00		62.9	67.8	mg/L	5.49	N/A	(0%-20%)		02/10/23	16:43
Thallium	0.0500	U	ND	0.0472	mg/L	1.06	94.2	(0%-20%)		02/09/23	19:59
QC1205308097 608969001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/09/23	20:06
Arsenic			5.65	U	ND	ug/L	N/A	(0%-20%)		02/10/23	17:34
Barium			28.4		5.78	ug/L	1.56	(0%-20%)		02/09/23	20:06
Beryllium		J	0.318	U	ND	ug/L	N/A	(0%-20%)		02/10/23	17:34
Boron			128		33.5	ug/L	30.7	(0%-20%)	PRB	02/14/23	10:00
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)	SKJ	02/10/23	17:34
Calcium			21700	E	3280	ug/L	24.4*	(0%-20%)		02/10/23	16:46
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/09/23	20:06
Cobalt			345		72.5	ug/L	5.03	(0%-20%)			
Iron			17800		3740	ug/L	4.91	(0%-20%)			



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## QC Summary

Workorder: 608969

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/09/23	20:06
Lithium		13.1	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		30300	E	4690	ug/L	22.5*		(0%-20%)		02/14/23	08:19
Manganese		218		43.8	ug/L	.485		(0%-20%)		02/10/23	15:57
Molybdenum	J	0.675	U	ND	ug/L	N/A		(0%-20%)		02/09/23	20:06
Potassium		10800		2010	ug/L	7.21		(0%-20%)		02/10/23	17:34
Selenium		8.17	J	1.77	ug/L	8.24		(0%-20%)			
Sodium		6290	E	940	ug/L	25.2*		(0%-20%)		02/10/23	16:46
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/09/23	20:06
<b>Metals Analysis-Mercury</b>											
Batch	2376750										
QC1205308832	609006008	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	02/02/23	10:07
QC1205308831	LCS										
Mercury	0.00200			0.00206	mg/L		103	(80%-120%)		02/02/23	09:38
QC1205308830	MB										
Mercury			U	ND	mg/L					02/02/23	09:36
QC1205308833	609006008	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		105	(75%-125%)		02/02/23	10:08

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## QC Summary

Workorder: 608969

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2376750										
QC1205308834	609006008	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	02/02/23	10:10
<b>Solids Analysis</b>											
Batch	2377347										
QC1205309759	608803013	DUP									
Total Dissolved Solids		2280		2240	mg/L	1.68		(0%-5%)	CH6	02/02/23	14:28
QC1205309760	608969004	DUP									
Total Dissolved Solids		898		882	mg/L	1.8		(0%-5%)		02/02/23	14:28
QC1205309758	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/02/23	14:28
QC1205309757	MB										
Total Dissolved Solids			U	ND	mg/L					02/02/23	14:28
<b>Spectrometric Analysis</b>											
Batch	2376122										
QC1205307836	LCS										
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	HH2	02/02/23	11:42
QC1205307835	MB										
Total Sulfide			U	ND	mg/L					02/02/23	11:42
QC1205307839	608815006	PS									
Total Sulfide	0.400	U	ND	0.367	mg/L		86.7	(75%-125%)		02/02/23	11:47
QC1205307840	608815006	PSD									
Total Sulfide	0.400	U	ND	0.374	mg/L	1.88	88.4	(0%-15%)		02/02/23	11:48
Batch	2377896										
QC1205310860	LCS										
Total Sulfide	0.400			0.408	mg/L		102	(85%-115%)	HH2	02/06/23	15:53

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## QC Summary

Workorder: **608969**

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch	2377896										
QC1205310859	MB										
Total Sulfide			U	ND	mg/L				HH2	02/06/23	15:53
QC1205310863	609152001	PS									
Total Sulfide	0.400	U	ND	0.183	mg/L		45.7*	(75%-125%)		02/06/23	16:02
QC1205310864	609152001	PSD									
Total Sulfide	0.400	U	ND	0.188	mg/L	2.89	47*	(0%-15%)		02/06/23	16:03
<b>Titration and Ion Analysis</b>											
Batch	2382211										
QC1205317833	608969001	DUP									
Alkalinity, Total as CaCO3		62.4		62.8	mg/L	0.639		(0%-20%)	EK1	02/10/23	15:15
Bicarbonate alkalinity (CaCO3)		62.4		62.8	mg/L	0.639		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205317832	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/10/23	15:10
QC1205317834	608969001	MS									
Alkalinity, Total as CaCO3	100		62.4	170	mg/L		107	(80%-120%)		02/10/23	15:18

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded

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## QC Summary

Workorder: 608969

Page 11 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: February 24, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608602

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374768										
QC1205305382	608602001	DUP									
Chloride		5.84		5.87	mg/L	0.538		(0%-20%)	HXC1	01/26/23	21:55
Fluoride		0.130		0.180	mg/L	31.8	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				01/26/23	23:25
Sulfate		41.0		41.1	mg/L	0.217		(0%-20%)			
QC1205305381	LCS										
Chloride	5.00			4.83	mg/L			96.6 (90%-110%)		01/26/23	21:25
Fluoride	2.50			2.61	mg/L			104 (90%-110%)			
Nitrate-N	2.50			2.49	mg/L			99.4 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205305380	MB										
Chloride			U	ND	mg/L					01/26/23	19:56
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205305383	608602001	PS									
Chloride	5.00	5.84		11.6	mg/L			115* (90%-110%)		01/26/23	22:25

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## QC Summary

Workorder: 608602

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374768										
Fluoride	2.50	0.130		2.78	mg/L		106	(90%-110%)	HXC1	01/26/23	22:25
Nitrate-N	2.50	U	ND	2.47	mg/L		98.7	(90%-110%)		01/26/23	23:55
Sulfate	10.0	8.20		18.7	mg/L		105	(90%-110%)			
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
QC1205305393	LCS										
Antimony	0.0500			0.0526	mg/L		105	(80%-120%)	SKJ	02/08/23	17:36
Arsenic	0.0500			0.0527	mg/L		105	(80%-120%)			
Barium	0.0500			0.0508	mg/L		102	(80%-120%)			
Beryllium	0.0500			0.0597	mg/L		119	(80%-120%)		02/07/23	18:32
Boron	0.100			0.119	mg/L		119	(80%-120%)		02/08/23	17:36
Cadmium	0.0500			0.0538	mg/L		108	(80%-120%)			
Calcium	2.00			2.20	mg/L		110	(80%-120%)			
Chromium	0.0500			0.0522	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0526	mg/L		105	(80%-120%)			

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## QC Summary

Workorder: 608602

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Lithium	0.0500			0.0571	mg/L		114	(80%-120%)	SKJ	02/07/23	18:32
Magnesium	2.00			2.24	mg/L		112	(80%-120%)		02/08/23	17:36
Manganese	0.0500			0.0518	mg/L		104	(80%-120%)			
Molybdenum	0.0500			0.0547	mg/L		109	(80%-120%)			
Potassium	2.00			2.06	mg/L		103	(80%-120%)			
Selenium	0.0500			0.0527	mg/L		105	(80%-120%)			
Sodium	2.00			2.24	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0516	mg/L		103	(80%-120%)			
QC1205305392	MB										
Antimony			U	ND	mg/L					02/08/23	17:32
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/07/23	18:29
Boron			U	ND	mg/L					02/08/23	17:32
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						

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## QC Summary

Workorder: 608602

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Chromium			U	ND	mg/L				SKJ	02/08/23	17:32
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L					02/07/23	18:29
Magnesium			U	ND	mg/L					02/08/23	17:32
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205305394 608602001 MS											
Antimony	0.0500	U	ND	0.0535	mg/L		107	(75%-125%)		02/08/23	19:13
Arsenic	0.0500	J	0.00221	0.0524	mg/L		100	(75%-125%)			
Barium	0.0500		0.0498	0.0988	mg/L		97.9	(75%-125%)			



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## QC Summary

Workorder: 608602

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Beryllium	0.0500	U	ND	0.0601	mg/L		120	(75%-125%)	SKJ	02/07/23	18:40
Boron	0.100		1.47	1.54	mg/L		N/A	(75%-125%)		02/08/23	17:43
Cadmium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)		02/08/23	19:13
Calcium	2.00		25.1	27.8	mg/L		N/A	(75%-125%)			
Chromium	0.0500	U	ND	0.0520	mg/L		103	(75%-125%)			
Cobalt	0.0500	U	ND	0.0513	mg/L		102	(75%-125%)			
Iron	2.00	J	0.0504	2.04	mg/L		99.6	(75%-125%)			
Lead	0.0500	U	ND	0.0518	mg/L		104	(75%-125%)			
Lithium	0.0500	J	0.00728	0.0653	mg/L		116	(75%-125%)		02/07/23	18:40
Magnesium	2.00		10.8	13.1	mg/L		N/A	(75%-125%)		02/08/23	19:13
Manganese	0.0500		0.396	0.459	mg/L		N/A	(75%-125%)		02/09/23	11:05
Molybdenum	0.0500	U	ND	0.0554	mg/L		111	(75%-125%)		02/08/23	19:13
Potassium	2.00		2.95	5.22	mg/L		114	(75%-125%)			
Selenium	0.0500	U	ND	0.0492	mg/L		98.3	(75%-125%)			
Sodium	2.00		12.5	14.9	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 608602

Page 6 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Thallium	0.0500	U	ND	0.0513	mg/L		103	(75%-125%)	SKJ	02/08/23	19:13
QC1205305395 608602001 MSD											
Antimony	0.0500	U	ND	0.0526	mg/L	1.66	105	(0%-20%)		02/08/23	19:17
Arsenic	0.0500	J	0.00221	0.0525	mg/L	0.168	101	(0%-20%)			
Barium	0.0500		0.0498	0.0968	mg/L	2	94	(0%-20%)			
Beryllium	0.0500	U	ND	0.0617	mg/L	2.74	123	(0%-20%)		02/07/23	18:43
Boron	0.100		1.47	1.61	mg/L	4.7	N/A	(0%-20%)		02/08/23	17:47
Cadmium	0.0500	U	ND	0.0544	mg/L	2.71	109	(0%-20%)		02/08/23	19:17
Calcium	2.00		25.1	27.2	mg/L	2.09	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0516	mg/L	0.689	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0501	mg/L	2.39	99.8	(0%-20%)			
Iron	2.00	J	0.0504	2.01	mg/L	1.41	98.2	(0%-20%)			
Lead	0.0500	U	ND	0.0502	mg/L	3.16	100	(0%-20%)			
Lithium	0.0500	J	0.00728	0.0658	mg/L	0.747	117	(0%-20%)		02/07/23	18:43
Magnesium	2.00		10.8	13.2	mg/L	0.43	N/A	(0%-20%)		02/08/23	19:17
Manganese	0.0500		0.396	0.444	mg/L	3.41	N/A	(0%-20%)		02/09/23	11:07

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## QC Summary

Workorder: 608602

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Molybdenum	0.0500	U	ND	0.0559	mg/L	0.82	112	(0%-20%)	SKJ	02/08/23	19:17
Potassium	2.00		2.95	5.12	mg/L	1.87	109	(0%-20%)			
Selenium	0.0500	U	ND	0.0498	mg/L	1.27	99.6	(0%-20%)			
Sodium	2.00		12.5	14.4	mg/L	3.52	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0494	mg/L	3.8	98.8	(0%-20%)			
QC1205305396 608602001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/08/23	19:24
Arsenic		J	2.21	U	ND	ug/L	N/A	(0%-20%)			
Barium			49.8		9.94	ug/L	.173	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/07/23	18:50
Boron			147		37.0	ug/L	26.2	(0%-20%)		02/08/23	17:50
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/08/23	19:24
Calcium			25100		5080	ug/L	1.08	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	50.4	U	ND	ug/L	N/A	(0%-20%)			

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## QC Summary

Workorder: 608602

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/08/23	19:24
Lithium	J	7.28	U	ND	ug/L	N/A		(0%-20%)		02/07/23	18:50
Magnesium		10800		2170	ug/L	.232		(0%-20%)		02/08/23	19:24
Manganese		396		79.8	ug/L	.655		(0%-20%)		02/09/23	11:11
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Potassium		2950		585	ug/L	.814		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		12500		2450	ug/L	1.88		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2375028										
QC1205305820	608516009	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/30/23	12:15
QC1205305819	LCS										
Mercury	0.00200			0.00188	mg/L		93.8	(80%-120%)		01/30/23	12:07
QC1205305818	MB										
Mercury			U	ND	mg/L					01/30/23	12:05
QC1205305821	608516009	MS									
Mercury	0.00200	U	ND	0.00184	mg/L		91.9	(75%-125%)		01/30/23	12:17

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## QC Summary

Workorder: **608602**

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2375028										
QC1205305822	608516009	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/30/23	12:19
<b>Solids Analysis</b>											
Batch	2376740										
QC1205308815	608602001	DUP									
Total Dissolved Solids		156		154	mg/L	1.29		(0%-5%)	CH6	02/01/23	11:35
QC1205308813	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		02/01/23	11:35
QC1205308812	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	11:35
<b>Spectrometric Analysis</b>											
Batch	2374524										
QC1205304986	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:42
QC1205304985	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:42
QC1205305514	608602006	PS									
Total Sulfide	0.400	U	ND	0.438	mg/L		109	(75%-125%)		01/30/23	15:42
QC1205305515	608602006	PSD									
Total Sulfide	0.400	U	ND	0.428	mg/L	2.32	107	(0%-15%)		01/30/23	15:42
Batch	2375142										
QC1205306028	LCS										
Total Sulfide	0.400			0.413	mg/L		103	(85%-115%)	JW2	01/30/23	15:41
QC1205306027	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:41

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## QC Summary

Workorder: **608602**

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch	2375142										
QC1205306031	608614004	PS									
Total Sulfide	0.400	U	ND	0.392	mg/L		96.8	(75%-125%)	JW2	01/30/23	15:42
QC1205306032	608614004	PSD									
Total Sulfide	0.400	U	ND	0.382	mg/L	2.6	94.3	(0%-15%)		01/30/23	15:42
<b>Titration and Ion Analysis</b>											
Batch	2378173										
QC1205311290	608567004	DUP									
Alkalinity, Total as CaCO3			82.4	82.6	mg/L	0.242		(0%-20%)	EK1	02/06/23	10:43
Bicarbonate alkalinity (CaCO3)			82.4	82.6	mg/L	0.242		(0%-20%)			
Carbonate alkalinity (CaCO3)			0.000	U	ND	mg/L	0 ^	(+/-4.00)			
QC1205311289	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/06/23	10:34
QC1205311291	608567004	MS									
Alkalinity, Total as CaCO3	100		82.4	185	mg/L		103	(80%-120%)		02/06/23	11:06

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample

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## QC Summary

Workorder: 608602

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: February 27, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608413

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374002										
QC1205304359	608413001	DUP									
Chloride		3.79		3.79	mg/L	0.124		(0%-20%)	HXC1	01/25/23	19:29
Fluoride	J	0.0926	J	0.0925	mg/L	0.108	^	(+/-0.100)			
Nitrate-N		0.945		0.920	mg/L	2.68	^	(+/-0.500)		01/25/23	23:05
Sulfate		0.628		0.612	mg/L	2.71	^	(+/-0.400)		01/25/23	19:29
QC1205304358	LCS										
Chloride	5.00			4.87	mg/L			97.3 (90%-110%)		01/25/23	20:31
Fluoride	2.50			2.53	mg/L			101 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.76	mg/L			97.6 (90%-110%)			
QC1205304357	MB										
Chloride			U	ND	mg/L					01/25/23	21:02
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205304360	608413001	PS									
Chloride	5.00	3.79		9.31	mg/L			110 (90%-110%)		01/25/23	20:00



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## QC Summary

Workorder: 608413

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374002										
Fluoride	2.50	J	0.0926	2.68	mg/L		104	(90%-110%)	HXC1	01/25/23	20:00
Nitrate-N	2.50		0.189	2.65	mg/L		98.2	(90%-110%)		01/25/23	23:36
Sulfate	10.0		0.628	10.6	mg/L		99.5	(90%-110%)		01/25/23	20:00
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
	QC1205304629 LCS										
Antimony	0.0500			0.0512	mg/L		102	(80%-120%)	SKJ	02/01/23	18:21
Arsenic	0.0500			0.0540	mg/L		108	(80%-120%)		02/03/23	14:21
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)		02/01/23	18:21
Beryllium	0.0500			0.0599	mg/L		120	(80%-120%)		02/03/23	14:21
Boron	0.100			0.113	mg/L		113	(80%-120%)			
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)		02/01/23	18:21
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0525	mg/L		105	(80%-120%)			
Cobalt	0.0500			0.0523	mg/L		105	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0549	mg/L		110	(80%-120%)		02/03/23	14:21

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## *QC Summary*

Workorder: 608413

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Lithium	0.0500			0.0574	mg/L		115	(80%-120%)	SKJ	02/03/23	14:21
Magnesium	2.00			2.36	mg/L		118	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		02/01/23	18:21
Molybdenum	0.0500			0.0539	mg/L		108	(80%-120%)		02/03/23	14:21
Potassium	2.00			2.08	mg/L		104	(80%-120%)		02/01/23	18:21
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.23	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0526	mg/L		105	(80%-120%)			
QC1205304628	MB										
Antimony			U	ND	mg/L					02/01/23	18:18
Arsenic			U	ND	mg/L					02/03/23	14:18
Barium			U	ND	mg/L					02/01/23	18:18
Beryllium			U	ND	mg/L					02/03/23	14:18
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/01/23	18:18
Calcium			U	ND	mg/L						

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## QC Summary

Workorder: 608413

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Chromium			U	ND	mg/L				SKJ	02/01/23	18:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					02/03/23	14:18
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					02/01/23	18:18
Molybdenum			U	ND	mg/L					02/03/23	14:18
Potassium			U	ND	mg/L					02/01/23	18:18
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205304630 608410001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		02/01/23	18:29
Arsenic	0.0500	U	ND	0.0534	mg/L		105	(75%-125%)		02/03/23	15:08
Barium	0.0500		0.0118	0.0604	mg/L		97.3	(75%-125%)		02/01/23	18:29

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## QC Summary

Workorder: 608413

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Beryllium	0.0500	U	ND	0.0578	mg/L		115	(75%-125%)	SKJ	02/06/23	16:16
Boron	0.100	U	ND	0.125	mg/L		121	(75%-125%)		02/03/23	15:08
Cadmium	0.0500	U	ND	0.0524	mg/L		105	(75%-125%)		02/01/23	18:29
Calcium	2.00		4.86	7.20	mg/L		117	(75%-125%)			
Chromium	0.0500	J	0.00950	0.0628	mg/L		107	(75%-125%)			
Cobalt	0.0500	J	0.000829	0.0532	mg/L		105	(75%-125%)			
Iron	2.00	J	0.0824	2.11	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)		02/03/23	15:08
Lithium	0.0500	U	ND	0.0625	mg/L		124	(75%-125%)			
Magnesium	2.00		5.34	7.70	mg/L		118	(75%-125%)			
Manganese	0.0500		0.0348	0.0864	mg/L		103	(75%-125%)		02/01/23	18:29
Molybdenum	0.0500	U	ND	0.0549	mg/L		110	(75%-125%)		02/03/23	15:08
Potassium	2.00		0.432	2.54	mg/L		106	(75%-125%)		02/01/23	18:29
Selenium	0.0500	U	ND	0.0465	mg/L		93.1	(75%-125%)			
Sodium	2.00		3.63	5.85	mg/L		111	(75%-125%)			

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## QC Summary

Workorder: 608413

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Thallium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	SKJ	02/01/23	18:29
QC1205304631 608410001 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	3.18	99.4	(0%-20%)		02/01/23	18:32
Arsenic	0.0500	U	ND	0.0541	mg/L	1.27	106	(0%-20%)		02/03/23	15:11
Barium	0.0500		0.0118	0.0587	mg/L	3	93.7	(0%-20%)		02/01/23	18:32
Beryllium	0.0500	U	ND	0.0558	mg/L	3.42	112	(0%-20%)		02/06/23	16:18
Boron	0.100	U	ND	0.124	mg/L	0.226	121	(0%-20%)		02/03/23	15:11
Cadmium	0.0500	U	ND	0.0503	mg/L	4.08	101	(0%-20%)		02/01/23	18:32
Calcium	2.00		4.86	7.13	mg/L	0.991	113	(0%-20%)			
Chromium	0.0500	J	0.00950	0.0614	mg/L	2.16	104	(0%-20%)			
Cobalt	0.0500	J	0.000829	0.0530	mg/L	0.458	104	(0%-20%)			
Iron	2.00	J	0.0824	2.06	mg/L	2.49	99	(0%-20%)			
Lead	0.0500	U	ND	0.0543	mg/L	1.38	109	(0%-20%)		02/03/23	15:11
Lithium	0.0500	U	ND	0.0623	mg/L	0.261	123	(0%-20%)			
Magnesium	2.00		5.34	7.85	mg/L	1.81	125	(0%-20%)			
Manganese	0.0500		0.0348	0.0852	mg/L	1.43	101	(0%-20%)		02/01/23	18:32

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## QC Summary

Workorder: 608413

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Molybdenum	0.0500	U	ND	0.0558	mg/L	1.5	112	(0%-20%)	SKJ	02/03/23	15:11
Potassium	2.00		0.432	2.55	mg/L	0.416	106	(0%-20%)		02/01/23	18:32
Selenium	0.0500	U	ND	0.0467	mg/L	0.333	93.4	(0%-20%)			
Sodium	2.00		3.63	5.71	mg/L	2.43	104	(0%-20%)			
Thallium	0.0500	U	ND	0.0519	mg/L	2.13	104	(0%-20%)			
QC1205304632 608410001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Barium			11.8	J	2.36	ug/L	.33	(0%-20%)		02/01/23	18:39
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/06/23	16:20
Boron		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Calcium			4860		1000	ug/L	3.15	(0%-20%)			
Chromium		J	9.50	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		J	0.829	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	82.4	U	ND	ug/L	N/A	(0%-20%)			

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## QC Summary

Workorder: 608413

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/03/23	15:17
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		5340		1050	ug/L	1.84		(0%-20%)			
Manganese		34.8		6.88	ug/L	1.11		(0%-20%)		02/01/23	18:39
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/03/23	15:17
Potassium		432	J	97.3	ug/L	12.6		(0%-20%)		02/01/23	18:39
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3630		689	ug/L	4.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2374419										
QC1205304806	608391001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/27/23	10:12
QC1205304805	LCS										
Mercury	0.00200			0.00213	mg/L		106	(80%-120%)		01/27/23	10:08
QC1205304804	MB										
Mercury			U	ND	mg/L					01/27/23	10:07
QC1205304807	608391001	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		106	(75%-125%)		01/27/23	10:13

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## QC Summary

Workorder: 608413

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2374419										
QC1205304808	608391001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/27/23	10:15
<b>Solids Analysis</b>											
Batch	2376170										
QC1205307926	608418001	DUP									
Total Dissolved Solids		344		341	mg/L	0.876		(0%-5%)	CH6	01/31/23	12:35
QC1205307924	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		01/31/23	12:35
QC1205307923	MB										
Total Dissolved Solids			U	ND	mg/L					01/31/23	12:35
<b>Spectrometric Analysis</b>											
Batch	2374521										
QC1205304980	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:43
QC1205304979	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:43
QC1205304981	608410001	PS									
Total Sulfide	0.400	U	ND	0.387	mg/L		96.8	(75%-125%)		01/30/23	15:43
QC1205304983	608418002	PS									
Total Sulfide	0.400	U	ND	0.352	mg/L		86.7	(75%-125%)		01/30/23	15:43
QC1205304982	608410001	PSD									
Total Sulfide	0.400	U	ND	0.392	mg/L	1.29	98.1	(0%-15%)		01/30/23	15:43
QC1205304984	608418002	PSD									
Total Sulfide	0.400	U	ND	0.362	mg/L	2.82	89.3	(0%-15%)		01/30/23	15:43



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## QC Summary

Workorder: 608413

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2375521										
QC1205307744 608651001 DUP											
Alkalinity, Total as CaCO3	H	54.8	H	54.8	mg/L	0		(0%-20%)	EK1	01/30/23	16:27
Bicarbonate alkalinity (CaCO3)	H	54.8	H	54.8	mg/L	0		(0%-20%)			
Carbonate alkalinity (CaCO3)	HU	ND	HU	ND	mg/L	N/A					
QC1205306666 LCS											
Alkalinity, Total as CaCO3	100			101	mg/L		101	(90%-110%)		01/30/23	15:14
QC1205307745 608651001 MS											
Alkalinity, Total as CaCO3	100	H	54.8	H	157	mg/L		103	(80%-120%)	01/30/23	16:31

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed

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## QC Summary

Workorder: 608413

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
		invalid for reporting to regulatory agencies									
N1		See case narrative									
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.									
R		Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.									
B		The target analyte was detected in the associated blank.									
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
J		See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608413**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2374301

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2374300

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304628	Method Blank (MB) <b>ICP-MS</b>
1205304629	Laboratory Control Sample (LCS)
1205304632	608410001(BRA-BRGWA-2SL) Serial Dilution (SD)
1205304630	608410001(BRA-BRGWA-2SS) Matrix Spike (MS)
1205304631	608410001(BRA-BRGWA-2SSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 608413004 (BRA-BRGWC-32S) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	608413 004
Boron	10X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2374419

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2374418

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304804	Method Blank (MB)CVAA
1205304805	Laboratory Control Sample (LCS)
1205304808	608391001(NonSDGL) Serial Dilution (SD)
1205304806	608391001(NonSDGD) Sample Duplicate (DUP)
1205304807	608391001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

### Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2374002

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304357	Method Blank (MB)

1205304358                      Laboratory Control Sample (LCS)  
 1205304359                      608413001(BRA-BRGWA-12S) Sample Duplicate (DUP)  
 1205304360                      608413001(BRA-BRGWA-12S) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following sample 608413004 (BRA-BRGWC-32S) was diluted because target analyte concentrations exceeded the calibration range. The following samples 1205304359 (BRA-BRGWA-12SDUP), 1205304360 (BRA-BRGWA-12SPS), 608413001 (BRA-BRGWA-12S), 608413002 (BRA-BRGWA-12I), 608413003 (BRA-BRGWA-23S) and 608413004 (BRA-BRGWC-32S) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608413			
	001	002	003	004
Nitrate-N	5X	2X	2X	2X
Sulfate	1X	1X	1X	20X

**Miscellaneous Information**

**Manual Integrations**

Samples 608413002 (BRA-BRGWA-12I), 608413003 (BRA-BRGWA-23S) and 608413004 (BRA-BRGWC-32S) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2376170

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205307923	Method Blank (MB)
1205307924	Laboratory Control Sample (LCS)
1205307926	608418001(BRA-BRGWC-17S) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2374521

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304979	Method Blank (MB)
1205304980	Laboratory Control Sample (LCS)
1205304981	608410001(BRA-BRGWA-2S) Post Spike (PS)
1205304982	608410001(BRA-BRGWA-2S) Post Spike Duplicate (PSD)
1205304983	608418002(BRA-BRGWC-33S) Post Spike (PS)
1205304984	608418002(BRA-BRGWC-33S) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2375521

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205306666	Laboratory Control Sample (LCS)
1205307744	608651001(NonSDG) Sample Duplicate (DUP)
1205307745	608651001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Holding Times**

Samples (See Below) were initially analyzed within holding; however, the holding times had expired prior to reanalysis of samples. The data is qualified.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205307744 (Non SDG 608651001DUP)		Logged 26-JAN-23, out of holding 05-DEC-22
1205307745 (Non SDG 608651001MS)		Logged 26-JAN-23, out of holding 05-DEC-22

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608602**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2374786

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2374785

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205305392	Method Blank (MB)ICP-MS
1205305393	Laboratory Control Sample (LCS)
1205305396	608602001(BRA-PZ-44L) Serial Dilution (SD)
1205305394	608602001(BRA-PZ-44S) Matrix Spike (MS)
1205305395	608602001(BRA-PZ-44SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020A/6020B met the advisory control limits with the exception of boron. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected. 608602001 (BRA-PZ-44), 608602002 (BRA-APBCD-FD-01), 608602003 (BRA-BRGWC-45), 608602004 (BRA-APBCD-EB-04), 608602005 (BRA-APBCD-FB-01), 608602006 (BRA-BRGWC-50), 608602007 (BRA-BRGWC-52I) and 608602008 (BRA-BRGWC-27I).

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities



indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 608602001 (BRA-PZ-44), 608602006 (BRA-BRGWC-50), 608602007 (BRA-BRGWC-52I) and 608602008 (BRA-BRGWC-27I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608602			
	001	006	007	008
Boron	10X	5X	20X	10X
Calcium	1X	5X	1X	10X
Cobalt	1X	5X	1X	1X
Magnesium	1X	5X	1X	1X
Manganese	1X	100X	1X	1X
Sodium	1X	5X	1X	1X

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method: SW846 7470A**

**Analytical Procedure: GL-MA-E-010 REV# 39**

**Analytical Batch: 2375028**

**Preparation Method: SW846 7470A Prep**

**Preparation Procedure: GL-MA-E-010 REV# 39**

**Preparation Batch: 2375027**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205305818	Method Blank (MB)CVAA
1205305819	Laboratory Control Sample (LCS)
1205305822	608516009(NonSDGL) Serial Dilution (SD)
1205305820	608516009(NonSDGD) Sample Duplicate (DUP)
1205305821	608516009(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

### **Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2374768

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205305380	Method Blank (MB)
1205305381	Laboratory Control Sample (LCS)
1205305382	608602001(BRA-PZ-44) Sample Duplicate (DUP)
1205305383	608602001(BRA-PZ-44) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Chloride	1205305383 (BRA-PZ-44PS)	115* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205305382 (BRA-PZ-44DUP), 1205305383 (BRA-PZ-44PS), 608602001 (BRA-PZ-44), 608602002 (BRA-APBCD-FD-01), 608602003 (BRA-BRGWC-45), 608602006

(BRA-BRGWC-50), 608602007 (BRA-BRGWC-52I) and 608602008 (BRA-BRGWC-27I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205305382 (BRA-PZ-44DUP), 1205305383 (BRA-PZ-44PS), 608602001 (BRA-PZ-44) and 608602003 (BRA-BRGWC-45) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608602					
	001	002	003	006	007	008
Chloride	1X	10X	10X	10X	1X	1X
Nitrate-N	5X	1X	2X	1X	1X	1X
Sulfate	5X	10X	10X	200X	20X	20X

**Product:** Solids, Total Dissolved

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2376740

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205308812	Method Blank (MB)
1205308813	Laboratory Control Sample (LCS)
1205308815	608602001(BRA-PZ-44) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** Sulfide, Total

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2374524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44

608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
1205304985	Method Blank (MB)
1205304986	Laboratory Control Sample (LCS)
1205305514	608602006(BRA-BRGWC-50) Post Spike (PS)
1205305515	608602006(BRA-BRGWC-50) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2375142

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205306027	Method Blank (MB)
1205306028	Laboratory Control Sample (LCS)
1205306031	608614004(BRA-PZ-53D) Post Spike (PS)
1205306032	608614004(BRA-PZ-53D) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2378173

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45

608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205311289	Laboratory Control Sample (LCS)
1205311290	608567004(NonSDG) Sample Duplicate (DUP)
1205311291	608567004(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608803**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2375324

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2375322

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205306362	Method Blank (MB)ICP-MS
1205306363	Laboratory Control Sample (LCS)
1205306366	608803001(BRA-BRGWC-25IL) Serial Dilution (SD)
1205306364	608803001(BRA-BRGWC-25IS) Matrix Spike (MS)
1205306365	608803001(BRA-BRGWC-25ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities

indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 608803001 (BRA-BRGWC-25I), 608803002 (BRA-BRGWC-29I), 608803003 (BRA-BRGWC-30I), 608803006 (BRA-PZ-51I), 608803007 (BRA-APBCD-FD-02), 608803008 (BRA-BRGWC-47), 608803009 (BRA-PZ-51D), 608803010 (BRA-PZ-58I), 608803011 (BRA-PZ-59I), 608803012 (BRA-PZ-60I), 608803013 (BRA-PZ-61I), 608803014 (BRA-PZ-65I) and 608803015 (BRA-PZ-50D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, sample 608803011 (BRA-PZ-59I) was diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	608803									
	001	002	003	006	007	008	009	010	011	012
Barium	1X	1X	1X	1X	1X	1X	1X	1X	5X	1X
Boron	20X	10X	20X	10X	10X	10X	1X	10X	1X	10X
Calcium	20X	10X	20X	10X	10X	10X	10X	10X	100X	10X
Cobalt	1X	1X	1X	1X	1X	1X	1X	1X	5X	10X
Iron	1X	1X	1X	1X	1X	1X	1X	1X	100X	1X
Lead	1X	1X	1X	1X	1X	1X	1X	1X	5X	1X
Magnesium	1X	1X	20X	10X	10X	10X	1X	10X	5X	10X
Manganese	20X	10X	20X	100X	100X	1X	10X	100X	100X	1000X
Sodium	1X	1X	1X	1X	1X	1X	10X	1X	5X	10X
Thallium	1X	1X	1X	1X	1X	1X	1X	1X	5X	1X

Analyte	608803		
	013	014	015
Boron	10X	1X	10X
Calcium	10X	10X	10X
Iron	1X	10X	1X
Magnesium	10X	10X	10X
Manganese	1000X	100X	100X
Sodium	10X	10X	1X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2375754

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2375753

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205307094	Method Blank (MB)CVAA
1205307095	Laboratory Control Sample (LCS)
1205307098	608803003(BRA-BRGWC-30IL) Serial Dilution (SD)
1205307096	608803003(BRA-BRGWC-30ID) Sample Duplicate (DUP)
1205307097	608803003(BRA-BRGWC-30IS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

#### **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

#### **Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2375330

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
1205306396	Method Blank (MB)
1205306397	Laboratory Control Sample (LCS)
1205306398	608658011(NonSDG) Sample Duplicate (DUP)
1205306399	608658011(NonSDG) Post Spike (PS)



The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205306398 (Non SDG 608658011DUP), 1205306399 (Non SDG 608658011PS), 608803001 (BRA-BRGWC-25I), 608803002 (BRA-BRGWC-29I), 608803003 (BRA-BRGWC-30I), 608803006 (BRA-PZ-51I) and 608803007 (BRA-APBCD-FD-02) were diluted because target analyte concentrations exceeded the calibration range. The following sample 608803001 (BRA-BRGWC-25I) in this sample group was diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608803				
	001	002	003	006	007
Chloride	1X	1X	1X	2X	5X
Nitrate-N	5X	1X	1X	1X	1X
Sulfate	20X	25X	100X	100X	100X

**Miscellaneous Information**

**Manual Integrations**

Samples 608803002 (BRA-BRGWC-29I) and 608803007 (BRA-APBCD-FD-02) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2375336

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205306401	Method Blank (MB)
1205306402	Laboratory Control Sample (LCS)

1205306403                      608803015(BRA-PZ-50D) Sample Duplicate (DUP)  
 1205306404                      608803015(BRA-PZ-50D) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205306404 (BRA-PZ-50DPS)	111* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205306403 (BRA-PZ-50DDUP), 1205306404 (BRA-PZ-50DPS), 608803008 (BRA-BRGWC-47), 608803009 (BRA-PZ-51D), 608803010 (BRA-PZ-58I), 608803011 (BRA-PZ-59I), 608803012 (BRA-PZ-60I), 608803013 (BRA-PZ-61I), 608803014 (BRA-PZ-65I) and 608803015 (BRA-PZ-50D) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205306403 (BRA-PZ-50DDUP), 1205306404 (BRA-PZ-50DPS), 608803011 (BRA-PZ-59I), 608803014 (BRA-PZ-65I) and 608803015 (BRA-PZ-50D) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608803							
	008	009	010	011	012	013	014	015
Chloride	1X	40X	2X	10X	5X	5X	5X	2X
Fluoride	1X	1X	1X	10X	1X	1X	1X	2X
Nitrate-N	1X	1X	1X	10X	1X	1X	5X	1X
Sulfate	200X	40X	100X	500X	200X	200X	200X	100X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2376741

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803001	BRA-BRGWC-25I

608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
1205308816	Method Blank (MB)
1205308817	Laboratory Control Sample (LCS)
1205308819	608803009(BRA-PZ-51D) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2377347

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205309757	Method Blank (MB)
1205309758	Laboratory Control Sample (LCS)
1205309759	608803013(BRA-PZ-61I) Sample Duplicate (DUP)
1205309760	608969004(BRA-PZ-57I) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2375859

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
1205307354	Method Blank (MB)
1205307355	Laboratory Control Sample (LCS)
1205307356	608803001(BRA-BRGWC-25I) Post Spike (PS)
1205307357	608803001(BRA-BRGWC-25I) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Sulfide	1205307356 (BRA-BRGWC-25IPS)	67.5* (75%-125%)
	1205307357 (BRA-BRGWC-25IPSD)	69.7* (75%-125%)

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2376122

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205307835	Method Blank (MB)

1205307836	Laboratory Control Sample (LCS)
1205307839	608815006(BRA-PZ-52D) Post Spike (PS)
1205307840	608815006(BRA-PZ-52D) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2378066

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
1205311155	Laboratory Control Sample (LCS)
1205311156	608803001(BRA-BRGWC-25I) Sample Duplicate (DUP)
1205311157	608803001(BRA-BRGWC-25I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

<4.5 pH values were confirmed by pH strip 608803002 (BRA-BRGWC-29I), 608803007 (BRA-APBCD-FD-02) and 608803010 (BRA-PZ-58I).

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2378067

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205311158	Laboratory Control Sample (LCS)
1205313003	608803012(BRA-PZ-60I) Sample Duplicate (DUP)
1205313004	608803012(BRA-PZ-60I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

pH value <4.5 was validated by pH strip 608803011 (BRA-PZ-59I).

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608969**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2376276

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2376275

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205308093	Method Blank (MB)ICP-MS
1205308094	Laboratory Control Sample (LCS)
1205308097	608969001(BRA-PZ-66IL) Serial Dilution (SD)
1205308095	608969001(BRA-PZ-66IS) Matrix Spike (MS)
1205308096	608969001(BRA-PZ-66ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Quality Control (QC) Information**

#### **Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the

IDL/MDL for CVAA, 50X the IDL/MDL for ICP and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. Not all the applicable analytes were within the established acceptance criteria. Matrix suppression may be suspected. The data has been qualified.

Sample	Analyte	Value
1205308097 (BRA-PZ-66ISDILT)	Calcium	24.4 *(0%-20%)
	Magnesium	22.5 *(0%-20%)
	Sodium	25.2 *(0%-20%)

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 608969001 (BRA-PZ-66I), 608969004 (BRA-PZ-57I), 608969005 (BRA-APBCD-FD03), 608969006 (BRA-PZ-63I), 608969007 (BRA-PZ-62I), 608969008 (BRA-PZ-51S) and 608969009 (BRA-PZ-64I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608969						
	001	004	005	006	007	008	009
Boron	1X	5X	5X	10X	5X	1X	1X
Calcium	10X	5X	5X	1X	5X	1X	10X
Cobalt	1X	1X	1X	1X	1X	1X	20X
Magnesium	10X	5X	5X	1X	5X	1X	10X
Manganese	500X	100X	100X	10X	100X	5X	500X
Sodium	10X	1X	1X	1X	1X	1X	5X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2376750

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2376749

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S



608969009	BRA-PZ-64I
1205308830	Method Blank (MB)CVAA
1205308831	Laboratory Control Sample (LCS)
1205308834	609006008(NonSDGL) Serial Dilution (SD)
1205308832	609006008(NonSDGD) Sample Duplicate (DUP)
1205308833	609006008(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2376273

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205308088	Method Blank (MB)
1205308089	Laboratory Control Sample (LCS)
1205308090	608969009(BRA-PZ-64I) Sample Duplicate (DUP)
1205308091	608969009(BRA-PZ-64I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205308090 (BRA-PZ-64IDUP), 1205308091 (BRA-PZ-64IPS), 608969001 (BRA-PZ-66I), 608969004 (BRA-PZ-57I), 608969005 (BRA-APBCD-FD03), 608969006 (BRA-PZ-63I), 608969007 (BRA-PZ-62I) and 608969009 (BRA-PZ-64I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix

interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608969					
	001	004	005	006	007	009
Chloride	5X	1X	5X	1X	5X	10X
Sulfate	200X	200X	200X	25X	100X	500X

**Sample Re-analysis**

Sample 608969002 (BRA-APBCD-FB-03) was re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported. Sample 608969002 (BRA-APBCD-FB-03) was re-analyzed to verify the result.

**Miscellaneous Information**

**Manual Integrations**

Samples 1205308090 (BRA-PZ-64IDUP) and 608969008 (BRA-PZ-51S) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2377347

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205309757	Method Blank (MB)
1205309758	Laboratory Control Sample (LCS)
1205309759	608803013(BRA-PZ-61I) Sample Duplicate (DUP)
1205309760	608969004(BRA-PZ-57I) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D  
**Analytical Procedure:** GL-GC-E-052 REV# 12  
**Analytical Batch:** 2376122

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
1205307835	Method Blank (MB)
1205307836	Laboratory Control Sample (LCS)
1205307839	608815006(BRA-PZ-52D) Post Spike (PS)
1205307840	608815006(BRA-PZ-52D) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D  
**Analytical Procedure:** GL-GC-E-052 REV# 12  
**Analytical Batch:** 2377896

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969009	BRA-PZ-64I
1205310859	Method Blank (MB)
1205310860	Laboratory Control Sample (LCS)
1205310863	609152001(BRA-IW-B-2) Post Spike (PS)
1205310864	609152001(BRA-IW-B-2) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is

less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Total Sulfide	1205310863 (BRA-IW-B-2PS)	45.7* (75%-125%)
	1205310864 (BRA-IW-B-2PSD)	47* (75%-125%)

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2382211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205317832	Laboratory Control Sample (LCS)
1205317833	608969001(BRA-PZ-66I) Sample Duplicate (DUP)
1205317834	608969001(BRA-PZ-66I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 609212**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2377747

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2377746

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205310467	Method Blank (MB)ICP-MS
1205310468	Laboratory Control Sample (LCS)
1205310471	609211001(BRA-IW-B-1L) Serial Dilution (SD)
1205310469	609211001(BRA-IW-B-1S) Matrix Spike (MS)
1205310470	609211001(BRA-IW-B-1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	609212	
	001	002
Boron	5X	10X

Calcium	5X	10X
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**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2378878

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2378875

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205312141	Method Blank (MB)CVAA
1205312142	Laboratory Control Sample (LCS)
1205312145	609438010(NonSDGL) Serial Dilution (SD)
1205312143	609438010(NonSDGD) Sample Duplicate (DUP)
1205312144	609438010(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

#### **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2377739

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205310453	Method Blank (MB)
1205310454	Laboratory Control Sample (LCS)
1205310455	609211001(BRA-IW-B-1) Sample Duplicate (DUP)
1205310456	609211001(BRA-IW-B-1) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205310456 (BRA-IW-B-1PS)	114* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205310455 (BRA-IW-B-1DUP), 1205310456 (BRA-IW-B-1PS), 609212001 (BRA-PZ-68D) and 609212002 (BRA-PZ-69I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205310455 (BRA-IW-B-1DUP) and 1205310456 (BRA-IW-B-1PS) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	609212	
	001	002
Chloride	20X	1X
Sulfate	20X	20X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2379677

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205313477	Method Blank (MB)
1205313478	Laboratory Control Sample (LCS)
1205313479	609435002(NonSDG) Sample Duplicate (DUP)
1205314103	609211001(BRA-IW-B-1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205314103 (BRA-IW-B-1DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2377896

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205310859	Method Blank (MB)
1205310860	Laboratory Control Sample (LCS)
1205310863	609152001(BRA-IW-B-2) Post Spike (PS)
1205310864	609152001(BRA-IW-B-2) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Sulfide	1205310863 (BRA-IW-B-2PS)	45.7* (75%-125%)
	1205310864 (BRA-IW-B-2PSD)	47* (75%-125%)

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14



**Analytical Batch:** 2382489

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205318635	Laboratory Control Sample (LCS)
1205318636	609152001(BRA-IW-B-2) Sample Duplicate (DUP)
1205318637	609152001(BRA-IW-B-2) Matrix Spike (MS)
1205319654	609212001(BRA-PZ-68D) Sample Duplicate (DUP)
1205319655	609212001(BRA-PZ-68D) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # **608969**  
 GEL Quote #: **608972**  
 COC Number U: \_\_\_\_\_  
 PO Number: \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: *J. Beckwith* ACC  
 Send Results To: SCS & Geosyntec Contacts  
 Sample ID: \_\_\_\_\_  
 \* For composites - indicate start and stop date/time

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiocassay | Speciality Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 GEL Work Order Number: \_\_\_\_\_  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID	Date Collected (mm/dd/yy)	Time Collected (Military) (hh:mm)	QC Code (3)	Field Filtered (2)	Sample Matrix (6)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)			Comments	
						Known or possible hazards	Radioactive (if yes please supply isotopic info)		NI	NI	NI		Preservative Type (6)
BRA-PZ-661	01/30/23	1420	G	N	WG			8	Metals * BPA 6020, 6010, 7470	SM 4500	Soil SW-846 9315, 9320	Radum 226 & 228 Total & Direct Alk EPA 300, SM 2540C Cl, F, SO4 TDS, NO3	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI field pH = 5.64 field ferrous iron = 6.0
BRA-APBCD-FB-03	02/03/23	1350	G	N	WG			8					field pH = _____ field ferrous iron = _____
BRA-APBCD-FB-06	01/30/23	1515	G	N	WG			8					field pH = _____ field ferrous iron = _____
BRA-PZ-571	02/03/23	1425	G	N	WG			8					field pH = 5.39 field ferrous iron = 1.0
BRA-APBCD-FD-03	01/30/23	---	G	N	WG			8					field pH = _____ field ferrous iron = _____

Chain of Custody Signatures  
 Relinquished By (Signed) *[Signature]* Date *1/31/23* Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 1. *[Signature]* Date *1/30/23* Time *1800*  
 2. *[Signature]* Date *1/31/23* Time *0901*  
 3. \_\_\_\_\_  
 TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, I, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: *2* °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other.

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Settlement, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes), Waste code(s): \_\_\_\_\_  
 Other: OI = Other / Unknown (i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals, Pb = Lead  
 TSCA Regulated: PCB = Polychlorinated biphenyls  
 Please provide any additional details below regarding handling and/or disposal concerns: (i.e. Origin of sample(s), type of site collected from, odd matrices, etc.)

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Work Order Number: \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: *D. Ryan* ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix
BRA-PZ-63I	01/30/23 <del>02/16/23</del>	1340	G	N	WG
BRA-PZ-62I	01/30/23 <del>02/16/23</del>	1300	G	N	WG
BRA-PZ-51S	01/30/23 <del>02/16/23</del>	1530	G	N	WG
BRA-PZ-64I	01/30/23 <del>02/16/23</del>	1700	G	N	WG

\* For composites - indicate start and stop date/time  
 Total number of containers: 8  
 Should this sample be considered:  
 ( ) Known or possible hazards  
 ( ) Radiactive (if isotopic info. Yes, please supply)

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>Erin Trent</i>	2/13/23	1800	<i>Dave Pagan</i>	1/30/23	1800
<i>Dave Pagan</i>	1/31/23	0901			

Chain of Custody Signatures  
 Relinquished By (Signed) Date Time Received by (signed) Date Time

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: EA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste (F, K, P, and U-listed wastes), Waste code(s): \_\_\_\_\_  
 Other: OT = Other / Unknown (i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e. Origin of sample(s), type of site collected from, odd matrices, etc.)

RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals, Pb = Lead  
 TSCA Regulated: PCB = Polychlorinated biphenyls

**SAMPLE RECEIPT & REVIEW FORM**

ET

Client: GARC SDG/AR/COC/Work Order: 608969 608972

Received By: MVH Date Received: 01-31-2023

Carrier and Tracking Number

Circle Applicable:  
 FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other

cooler 3-1  
cooler 2-2  
cooler 1-1

Suspected Hazard Information    Yes    No    \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?        Hazard Class Shipped:    UN#:    If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples are to be received as radioactive?        COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?        Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 00 CPM/mR/Hr  
 Classified as: Rad 1    Rad 2    Rad 3

D) Did the client designate samples are hazardous?        COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?        If D or E is yes, select Hazards below.  
 PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice    Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius    TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: <u>BRA-P2-571, BRA-P2-661, BRA-P2-641</u> If Preservation added, Lot #: <u>1344-13 Sodium Hydroxide</u>
7 Do any samples require Volatile Analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 2/1/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # **608413** **GEL** Laboratories LLC  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Quote #: **608416**  
 Chain of Custody and Analytical Request  
**GEL Work Order Number:** **GEL Project Manager: Erin Trent**

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Collected By: *J. Bennett* ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - Indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (d) (Fill in the number of containers for each test)						Comments Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1
						Yes, please supply isotopic info.	(7) Known or possible Hazards		IN	IN	IN	IN	IN	IN	
BRA-BR6WA-125	01/24/23	1310	G	N	WG			8	✓	✓	✓	✓	✓	✓	field pH = 5.97
BRA-BR6WA-121	01/24/23	1450	G	N	WG			8	✓	✓	✓	✓	✓	✓	field ferrous iron = 0.0
BRA-BR6WA-235	01/24/23	1415	G	N	WG			8	✓	✓	✓	✓	✓	✓	field pH = 6.48
BRA-BR6WC-325	01/24/23	1541	G	N	WG			8	✓	✓	✓	✓	✓	✓	field ferrous iron = 0.0
BRA-															field ferrous iron = 0.0

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *Erin Trent* 1/25/23 08:29 *Erin Trent* 8:29 1/25/23  
 2. *M. Davis* 1-25-23 1338  
 3. \_\_\_\_\_

TAT Requested: Normal:  Yes  No  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

QC Summary:  Level 1  Level 2  Level 3  Level 4

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - For yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

**RCRA Metals**  
 AS = Arsenic Hg= Mercury  
 Ba = Barium Se= Selenium  
 Cd = Cadmium Ag= Silver  
 Cr = Chromium MR= Misc. RCRA metals  
 Pb = Lead

**Characteristic Hazards**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls

**Listed Waste**  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

**Other**  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns, (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GPEC</u>		SDG/AR/COC/Work Order: <u>608413 608416</u>	
Received By: <u>PL</u>		Date Received: <u>1/25/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other	
Suspected Hazard Information		Yes	No
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?			<input checked="" type="checkbox"/>
		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?			<input checked="" type="checkbox"/>
		COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?			<input checked="" type="checkbox"/>
		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1   Rad 2   Rad 3	
D) Did the client designate samples are hazardous?			<input checked="" type="checkbox"/>
		COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?			<input checked="" type="checkbox"/>
		If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____	
Sample Receipt Criteria		Yes	NA
		No	
Comments/Qualifiers (Required for Non-Conforming Items)			
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	
		Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)	
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	
		Circle Applicable: Client contacted and provided COC   COC created upon receipt	
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	
		Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius   TEMP: <u>1</u>	
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	
		Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____	
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	
		Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)	
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	
		Sample ID's and Containers Affected: If Preservation added, Lot#: _____	
7	Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>
		If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____	
8	Samples received within holding time?	<input checked="" type="checkbox"/>	
		ID's and tests affected: _____	
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	
		ID's and containers affected: _____	
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	
		Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)	
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	
		Circle Applicable: No container count on COC   Other (describe)	
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	
		Circle Applicable: Not relinquished   Other (describe)	
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AM Date 1/26/23 Page 1 of 1



GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments
						Radioactive (if yes, please supply isotopic info)	(?) Known or possible Hazards		NI	NI	NI	NI	NI	
BRA- PZ-68D	02/01/23	1416	G	N	WG			8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total, Carb. & Bioturb Alk SM 220B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500		field pH = 7.24 field ferrous iron = 0.0
BRA- PZ-69I	02/01/23	1247	G	N	WG			8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total, Carb. & Bioturb Alk SM 220B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500		field pH = 6.14 field ferrous iron = 0.0

Chain of Custody Signatures			TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: _____ (Subject to Surcharge)		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>Tony Goble</i>	2-23/2023	0959	<i>[Signature]</i>	2/23	9:59
<i>[Signature]</i>	2/23/2023	2:20	<i>[Signature]</i>	2/23	2:20

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Fe, Mg, Mn, K, Na, Hg

Other: \_\_\_\_\_

OT= Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

RCRA Metals  
 As = Arsenic Hg= Mercury  
 Ba = Barium Se= Selenium  
 Cd = Cadmium Ag= Silver  
 Cr = Chromium MIR= Misc. RCRA metals  
 Pb = Lead

Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

TSCA Regulated  
 PCB = Polychlorinated biphenyls

KNOWN OR POSSIBLE HAZARDS



Laboratories LLC

**SAMPLE RECEIPT & REVIEW FORM**

Client: <b>GPCC</b>	SDG/AR/COC/Work Order: <b>609211 1609212</b>
Received By: <b>Stacy Boone</b>	Date Received: <b>2/2/2023</b>
Carrier and Tracking Number	Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier <u>Other</u>

Suspected Hazard Information	<input type="checkbox"/> Yes <input type="checkbox"/> No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1   Rad 2   Rad 3
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Preservation Method: Wet ice    Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius <span style="float:right">TEMP: <u>1°C</u></span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Temperature Device Serial #: <u>IR3-22</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Circle Applicable: Not relinquished    Other (describe)
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Comments (Use Continuation Form if needed):

[Large handwritten signature]

PM (or PMA) review: Initials Am Date 2/3/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # \_\_\_\_\_ of \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number <sup>(1)</sup>: \_\_\_\_\_

PO Number: \_\_\_\_\_

GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
Phone: (843) 556-8171  
Fax: (843) 766-1178

**GEL** Laboratories LLC **6088013**  
Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
**Chain of Custody and Analytical Request**  
GEL Project Manager: Erin Trent

GEL Work Order Number: \_\_\_\_\_  
Phone # 404-506-7116  
Fax # \_\_\_\_\_

Client Name: GA Power  
Project/Site Name: Plant Branch Ash Ponds - BCD  
Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: J. J. Pr. 2602 ACC  
Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)					Total number of containers	Should this sample be considered: (7) Known or possible hazards (8) Radioactive (if yes, please supply isotopic info)	Comments
						NI	IN	SM 4500 Sulfide	SW-846 9315, 9320	Radium 226 & 228			
BRA-BZ6WC-25I	01/26/23	1015	G	N	WG	8	8	8	8	8	8	field pH = 6.18 field ferrous iron = 0.0	
BRA-BZ6WC-29I	01/26/23	1130	G	N	WG	8	8	8	8	8	field pH = 4.30 field ferrous iron = 5.0		
BRA-BZ6WC-30I	01/26/23	1105	G	N	WG	8	8	8	8	8	field pH = 6.28 field ferrous iron = 0.0		
BRA-APBCD-EB-03	01/26/23	1400 1610	G	N	WQ	8	8	8	8	8	field pH = N/A field ferrous iron = N/A		
BRA-APBCD-FB-02	01/26/23	1425	G	N	WQ	8	8	8	8	8	field pH = N/A field ferrous iron = N/A		

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1/27/23	0950	<i>[Signature]</i>	1/27/23	0950
<i>[Signature]</i>	1/27/23	213	<i>[Signature]</i>	1/27/23	213

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg = Mercury Se = Selenium Ag = Silver MR = Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 GEL Work Order Number: \_\_\_\_\_  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Should this sample be considered:	Total number of containers	Sample Analysis Requested <sup>(5)</sup>	Preservative Type (6)
BRA- <del>BR606-25E</del> BRA-PZ-51I	01/26/23	1200	G	N	WG	<input type="checkbox"/> Known or possible Hazards <input type="checkbox"/> Radioactive (If yes, please supply isotopic info)	8	Metals * EPA 6020, 6010, 7470 Total & Heavy Alk SM 2320B C, F, SO <sub>4</sub> , TDS, NO <sub>3</sub> EPA 300, SM 2540C Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	QC Note: extra sample is required for sample specific Task Code: BRA-CCR-ASSMT-2023S1 field pH = 5.44 field ferrous iron = 0.0 field pH = NA field ferrous iron = NA field pH = 5.65 field ferrous iron = 0.0 field pH = 7.20 field ferrous iron = 1.0 field pH = 3.93 field ferrous iron = 4.0
BRA-APBCD-FD-02	01/26/23	---	G	N	WG		8		
BRA-B76WC-47	01/26/23	1333	G	N	WG		8		
BRA-PZ-51D	01/26/23	0950	G	N	WG		8		
BRA-PZ-58I	01/26/23	1500	G	N	WG		8		

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	1/29/23	<i>[Signature]</i>	1/29/23	950
<i>[Signature]</i>	1/27/23	<i>[Signature]</i>	1/27/23	213

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 RCRA Metals  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead  
 Listed Waste  
 LW = Listed Waste  
 (F,K,P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_  
 Other  
 OT = Other / Unknown  
 (i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Work Order Number: \_\_\_\_\_ Phone # 404-506-7116  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Fax # \_\_\_\_\_  
 Collected By: *J. Beardsley* ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Radiactive (if yes, please supply isotopic info.)	Should this sample be considered:	Total number of containers	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)	Preservative Type (6)	Comments	
BRA-PZ-59I	01/26/23	1317	G	N	WG		(7) Known or possible Hazards	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Etabc Alk SM 2320B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500 NI NI	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1	
BRA-PZ-60I	01/26/23	1505	6	N	WG			8			field pH = 3.78 field ferrous iron = 6.5	
BRA-PZ-61I	01/26/23	1410	6	N	WG			8			field pH = 4.16 field ferrous iron = 0.5	
BRA-PZ-65I	01/26/23	1645	6	N	WG			8			field pH = 4.06 field ferrous iron = 6.0	
BRA-PZ-50D	01/27/23	0840	6	N	WG			8			field pH = 6.24 field ferrous iron = 4.5	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1/27/23	0950	<i>[Signature]</i>	1/27/23	950
<i>[Signature]</i>	1/27/23	2:13	<i>[Signature]</i>	1/27/23	2:13

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SF=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B -3, 6010B/7470A -1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sulfuric Acid, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg = Mercury Se = Selenium Ag = Silver MR = Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

Client: GPOC SDG/AR/COC/Work Order: 608803, 608813 ET  
 Received By: Thyasia Tatum Date Received: 1-27-23

Carrier and Tracking Number  
 FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Yes  No Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  Yes  No COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive?  Yes  No Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous?  Yes  No COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards?  Yes  No If D or E is yes, select Hazards below.  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 < 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AT Date 1/31/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number (1): \_\_\_\_\_

P.O. Number: \_\_\_\_\_

GEL Work Order Number: \_\_\_\_\_

Client Name: GA Power

Project/Site Name: Plant Branch Ash Ponds - BCD

Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: J. B. ... ACC

Phone # 404-506-7116

Fax # \_\_\_\_\_

Send Results To: SCS & Geosyntec Contacts

GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
Phone: (843) 556-8171  
Fax: (843) 766-1178

608602

GEL

Laboratories LLC

Chemistry | Radiochemistry | Radiobiology | Speciality Analytics

Chain of Custody and Analytical Request

GEL Project Manager: Erin Trent

608609

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code (2)	Field Filtered (3)	Sample Matrix (6)	Radiactive (If isotopic info)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-PZ-44	01/25/23	1325	G	N	WG		(7) Known or possible Hazards	8	<input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> C, F, SO4, TDS, NO3 <input checked="" type="checkbox"/> Total & Bleach Alk <input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 <input checked="" type="checkbox"/> Sulfide	6.13	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1
BRA-APBCD-FD-01	01/25/23	---	G	N	WG			8		N/A	
BRA-BRGWC-415	01/25/23	1440	G	N	WG			8			
BRA-APBCD-EB-04	01/25/23	1630	G	N	WG			8			
BRA-APBCD-FB-01	01/25/23	1305	G	N	WG			8			

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[Signature]	1/26/23	0828	[Signature]	1/26/23	838
[Signature]	1/26/23	115	[Signature]	1/26/23	115

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308  
 Collected By: J. Benford ACC

Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radiative (If Yes, please supply isotopic info)	Total number of containers	Should this sample be considered:	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-BR6WC-50	01/25/23	1325	G	N	WG		8	(7) Known or possible Hazards	Metals * EPA 6020, 6010, 7470 Total & Bearb Alk SM 2320B EPA 300, SM 2540C C, P, SO4, TDS, NO3		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI field pH = 5.18 field ferrous iron = 0.0
BRA-BR6WC-52I	01/25/23	1510	G	N	WG		8				field pH = 6.25 field ferrous iron = 1.0
BRA-BR6WC-27I	01/25/23	1345	G	W	WG		8				field pH = 5.63 field ferrous iron = 0.0
BRA-											field pH = _____ field ferrous iron = _____
BRA-											field pH = _____ field ferrous iron = _____

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *[Signature]* 1/24/23 0826  
 2. *[Signature]* 1/24/23 1:13  
 3. \_\_\_\_\_

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WL=Lachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Hg= Mercury
As = Arsenic	
Ba = Barium	
Cd = Cadmium	
Cr = Chromium	
Pb = Lead	
Se = Selenium	
Ag = Silver	
MIR = Misc. RCRA metals	
PCB = Polychlorinated biphenyls	

FL = Flammable/Ignitable  
 LW = Listed Waste (F, K, P and U-listed wastes)  
 RE = Reactive  
 Waste code(s): \_\_\_\_\_

OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

608602  
608609

Client: **GPCC** SDG/AR/COC/Work Order: \_\_\_\_\_  
 Received By: **Stacy Boone** Date Received: **JAN 26, 2023**  
 Carrier and Tracking Number: \_\_\_\_\_  
 Circle Applicable: FedEx Express  FedEx Ground  UPS  Field Services  Courier  Other

Suspected Hazard Information:  Yes  No \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 C) Did the RSO classify the samples as radioactive?  COC notation or radioactive stickers on containers equal client designation.  
 D) Did the client designate samples are hazardous?  Maximum Net Counts Observed\* (Observed Counts - Area Background Counts):  CPM / mR/hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 E) Did the RSO identify possible hazards?  COC notation or hazard labels on containers equal client designation.  
 If D or E is yes, select Hazards below:  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: <b>TEMP: 10 x 5</b> *all temperatures are recorded in Celsius
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR3-22 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed): \_\_\_\_\_  
 PM (or PMA) review: Initials **AD** Date **1/27/23** Page **1** of **1**

## Anna Johnson

---

**From:** Adrian Melendrez  
**Sent:** Wednesday, February 1, 2023 2:18 PM  
**To:** JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM;  
MJSMILLE@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM;  
NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com  
**Cc:** Team Trent  
**Subject:** RE: Preservation 608969

CCing the correct team address.

---

**From:** Adrian Melendrez  
**Sent:** Wednesday, February 1, 2023 2:16 PM  
**To:** JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM;  
MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com  
**Cc:** Team Boddiford <Team.Boddiford@gel.com>  
**Subject:** Preservation 608969

Notifying you that these samples were preserved with sodium hydroxide upon arrival. No reply is necessary just wanted to keep you in the loop.

- BRA-PZ-57I
- BRA-PZ-66I
- BRA-PZ-64I

Thanks!

-Adrian

**Adrian Melendrez**  
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417

Office Main: 843.556.8171 EXT 4409 | Fax: 843.766.1178

E-Mail: [Adrian.Melendrez@gel.com](mailto:Adrian.Melendrez@gel.com) | Website: [www.gel.com](http://www.gel.com)

**Analytical Testing**







**List of current GEL Certifications as of 24 February 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



March 01, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Orders: 609213,608972,608609,608813 and 608416

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 25, 2023, January 26, 2023, January 27, 2023, January 31, 2023 and February 02, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608609 GEL Work Order: 608609

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608813 GEL Work Order: 608813

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 609213 GEL Work Order: 609213

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608972 GEL Work Order: 608972

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608416 GEL Work Order: 608416

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by





# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S  
 Sample ID: 608416001  
 Matrix: WG  
 Collect Date: 24-JAN-23  
 Receive Date: 25-JAN-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	2.40	+/-1.53	2.42	+/-1.65	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.07	+/-1.57	2.42	+/-1.69		pCi/L		1	NXL1	02/22/23	0904	2374673	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.662	+/-0.322	0.281	+/-0.341	1.00	pCi/L			LXP1	02/19/23	0729	2374665	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2374674	79.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I

Project: GPCC00101

Sample ID: 608416002

Client ID: GPCC001

Matrix: WG

Collect Date: 24-JAN-23

Receive Date: 25-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.693	+/-1.15	2.00	+/-1.17	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.49	+/-1.22	2.00	+/-1.25		pCi/L		1	NXL1	02/22/23	0904	2374673	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.800	+/-0.413	0.466	+/-0.438	1.00	pCi/L			LXP1	02/19/23	0729	2374665	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2374674	78.1	(15%-125%)

**Notes:**

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S

Project: GPCC00101

Sample ID: 608416003

Client ID: GPCC001

Matrix: WG

Collect Date: 24-JAN-23

Receive Date: 25-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.90	+/-1.50	2.22	+/-1.67	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.62	+/-1.62	2.22	+/-1.82		pCi/L		1	NXL1	02/22/23	0904	2374673	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.72	+/-0.603	0.318	+/-0.722	1.00	pCi/L			LXP1	02/19/23	0729	2374665	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2374674	69.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 22, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-32S

Project: GPCC00101

Sample ID: 608416004

Client ID: GPCC001

Matrix: WG

Collect Date: 24-JAN-23

Receive Date: 25-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.45	+/-1.11	1.73	+/-1.17	3.00	pCi/L			JE1	02/20/23	1210	2374674	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.25	+/-1.18	1.73	+/-1.24		pCi/L		1	NXL1	02/22/23	0904	2374673	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.804	+/-0.394	0.482	+/-0.414	1.00	pCi/L			LXP1	02/19/23	0729	2374665	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2374674	68	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D  
 Sample ID: 609213001  
 Matrix: WG  
 Collect Date: 01-FEB-23  
 Receive Date: 02-FEB-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.77	+/-1.52	2.07	+/-1.79	3.00	pCi/L			JE1	02/28/23	0844	2378772	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.16	+/-1.54	2.07	+/-1.82		pCi/L			NXL1	03/01/23	0821	2378773	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.386	+/-0.283	0.370	+/-0.289	1.00	pCi/L			LXP1	02/27/23	0747	2378760	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2378772	68.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I

Project: GPCC00101

Sample ID: 609213002

Client ID: GPCC001

Matrix: WG

Collect Date: 01-FEB-23

Receive Date: 02-FEB-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0553	+/-1.32	2.42	+/-1.32	3.00	pCi/L			JE1	02/28/23	0842	2378772	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.356	+/-1.36	2.42	+/-1.36		pCi/L			NXL1	03/01/23	0821	2378773	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.356	+/-0.318	0.496	+/-0.322	1.00	pCi/L			LXP1	02/27/23	0747	2378760	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2378772	78.3	(15%-125%)

**Notes:**

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-66I  
 Sample ID: 608972001  
 Matrix: WG  
 Collect Date: 30-JAN-23  
 Receive Date: 31-JAN-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.55	+/-1.23	1.97	+/-1.30	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.99	+/-1.28	1.97	+/-1.34		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.443	+/-0.344	0.391	+/-0.354	1.00	pCi/L			LXP1	02/28/23	0956	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	73.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03

Project: GPCC00101

Sample ID: 608972002

Client ID: GPCC001

Matrix: WQ

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.22	+/-1.09	1.77	+/-1.14	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.52	+/-1.13	1.77	+/-1.17		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.300	+/-0.280	0.364	+/-0.288	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	76.9	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06

Project: GPCC00101

Sample ID: 608972003

Client ID: GPCC001

Matrix: WQ

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.97	+/-1.27	1.70	+/-1.48	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.42	+/-1.32	1.70	+/-1.52		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.457	+/-0.350	0.458	+/-0.365	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	75.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I

Project: GPCC00101

Sample ID: 608972004

Client ID: GPCC001

Matrix: WG

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	2.12	+/-1.44	2.28	+/-1.53	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.27	+/-1.55	2.28	+/-1.65		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.15	+/-0.578	0.575	+/-0.613	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	74.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD03

Project: GPCC00101

Sample ID: 608972005

Client ID: GPCC001

Matrix: WG

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.47	+/-0.999	1.52	+/-1.07	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.99	+/-1.08	1.52	+/-1.15		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.525	+/-0.420	0.603	+/-0.434	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	79.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I

Project: GPCC00101

Sample ID: 608972006

Client ID: GPCC001

Matrix: WG

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		4.19	+/-1.49	1.97	+/-1.84	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		6.03	+/-1.63	1.97	+/-2.00		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.83	+/-0.669	0.586	+/-0.794	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	74.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I

Project: GPCC00101

Sample ID: 608972007

Client ID: GPCC001

Matrix: WG

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.591	+/-1.02	1.77	+/-1.03	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.33	+/-1.12	1.77	+/-1.14		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.737	+/-0.480	0.594	+/-0.504	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	81.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51S

Project: GPCC00101

Sample ID: 608972008

Client ID: GPCC001

Matrix: WG

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.36	+/-1.28	1.92	+/-1.42	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.19	+/-1.35	1.92	+/-1.48		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.833	+/-0.405	0.311	+/-0.439	1.00	pCi/L			LXP1	02/28/23	0957	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	80.1	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: March 1, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I

Project: GPCC00101

Sample ID: 608972009

Client ID: GPCC001

Matrix: WG

Collect Date: 30-JAN-23

Receive Date: 31-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.38	+/-1.40	1.91	+/-1.64	3.00	pCi/L			JE1	02/28/23	1322	2377496	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.50	+/-1.44	1.91	+/-1.68		pCi/L		1	NXL1	03/01/23	0826	2377494	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.121	+/-0.349	0.696	+/-0.350	1.00	pCi/L			LXP1	02/28/23	1018	2377436	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377496	72.6	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-251  
 Sample ID: 608813001  
 Matrix: WG  
 Collect Date: 26-JAN-23  
 Receive Date: 27-JAN-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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**Rad Gas Flow Proportional Counting**

*GFPC Ra228, Liquid "As Received"*

Radium-228	U	1.48	+/-1.46	2.39	+/-1.51	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
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*Radium-226+Radium-228 Calculation "See Parent Products"*

Radium-226+228 Sum		3.24	+/-1.54	2.39	+/-1.62		pCi/L		1	NXL1	02/28/23	1325	2377474	2
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**Rad Radium-226**

*Lucas Cell, Ra226, Liquid "As Received"*

Radium-226		1.76	+/-0.501	0.330	+/-0.594	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3
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**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	67.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I

Project: GPCC00101

Sample ID: 608813002

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.53	+/-1.54	2.55	+/-1.59	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.27	+/-1.57	2.55	+/-1.63		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.740	+/-0.295	0.218	+/-0.323	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	73.6	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I

Project: GPCC00101

Sample ID: 608813003

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	2.00	+/-1.72	2.79	+/-1.80	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.73	+/-1.75	2.79	+/-1.83		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.732	+/-0.336	0.352	+/-0.358	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	76.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05

Project: GPCC00101

Sample ID: 608813004

Client ID: GPCC001

Matrix: WQ

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.381	+/-1.54	2.79	+/-1.54	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.450	+/-1.55	2.79	+/-1.56		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.0698	+/-0.216	0.429	+/-0.217	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	74.7	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02

Project: GPCC00101

Sample ID: 608813005

Client ID: GPCC001

Matrix: WQ

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.75	+/-1.53	2.45	+/-1.59	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.92	+/-1.54	2.45	+/-1.60		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.173	+/-0.160	0.221	+/-0.162	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	62.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51I

Project: GPCC00101

Sample ID: 608813006

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.341	+/-1.34	2.50	+/-1.34	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.53	+/-1.40	2.50	+/-1.42		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.18	+/-0.405	0.345	+/-0.467	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	59.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02

Project: GPCC00101

Sample ID: 608813007

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.12	+/-1.64	2.82	+/-1.66	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.53	+/-1.70	2.82	+/-1.74		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.41	+/-0.441	0.314	+/-0.492	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	80.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47

Project: GPCC00101

Sample ID: 608813008

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.69	+/-1.58	2.58	+/-1.64	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.28	+/-1.64	2.58	+/-1.74		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.60	+/-0.425	0.264	+/-0.574	1.00	pCi/L			LXP1	02/22/23	0931	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	72.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D

Project: GPCC00101

Sample ID: 608813009

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.96	+/-1.84	2.70	+/-2.00	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.70	+/-1.87	2.70	+/-2.03		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.741	+/-0.340	0.356	+/-0.358	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	54.7	(15%-125%)

**Notes:**

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |



# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I

Project: GPCC00101

Sample ID: 608813010

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	2.24	+/-1.75	2.81	+/-1.85	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.03	+/-1.81	2.81	+/-1.92		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.79	+/-0.441	0.210	+/-0.529	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	81	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I  
 Sample ID: 608813011  
 Matrix: WG  
 Collect Date: 26-JAN-23  
 Receive Date: 27-JAN-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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**Rad Gas Flow Proportional Counting**

*GFPC Ra228, Liquid "As Received"*

Radium-228	U	0.554	+/-1.42	2.57	+/-1.43	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
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*Radium-226+Radium-228 Calculation "See Parent Products"*

Radium-226+228 Sum	U	1.33	+/-1.46	2.57	+/-1.47		pCi/L		1	NXL1	02/28/23	1325	2377474	2
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**Rad Radium-226**

*Lucas Cell, Ra226, Liquid "As Received"*

Radium-226		0.780	+/-0.305	0.221	+/-0.329	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3
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**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	70.2	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I

Project: GPCC00101

Sample ID: 608813012

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.21	+/-1.84	2.80	+/-2.02	3.00	pCi/L			JE1	02/23/23	1129	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.31	+/-1.92	2.80	+/-2.13		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.10	+/-0.536	0.264	+/-0.665	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	79.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I

Project: GPCC00101

Sample ID: 608813013

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.68	+/-1.71	2.83	+/-1.77	3.00	pCi/L			JE1	02/23/23	1448	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.20	+/-1.76	2.83	+/-1.84		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.52	+/-0.412	0.215	+/-0.507	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	82.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I

Project: GPCC00101

Sample ID: 608813014

Client ID: GPCC001

Matrix: WG

Collect Date: 26-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.74	+/-1.77	2.95	+/-1.83	3.00	pCi/L			JE1	02/23/23	1130	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.18	+/-1.79	2.95	+/-1.85		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.444	+/-0.253	0.284	+/-0.273	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	81.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D

Project: GPCC00101

Sample ID: 608813015

Client ID: GPCC001

Matrix: WG

Collect Date: 27-JAN-23

Receive Date: 27-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.63	+/-1.67	2.77	+/-1.72	3.00	pCi/L			JE1	02/23/23	1130	2377475	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.66	+/-1.71	2.77	+/-1.77		pCi/L		1	NXL1	02/28/23	1325	2377474	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.04	+/-0.371	0.248	+/-0.430	1.00	pCi/L			LXP1	02/22/23	1003	2377431	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377475	75.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44  
 Sample ID: 608609001  
 Matrix: WG  
 Collect Date: 25-JAN-23  
 Receive Date: 26-JAN-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.34	+/-1.61	2.71	+/-1.64	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.49	+/-1.65	2.71	+/-1.70		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.15	+/-0.369	0.269	+/-0.420	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	76.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01

Project: GPCC00101

Sample ID: 608609002

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.07	+/-1.41	2.40	+/-1.43	3.00	pCi/L			JE1	02/22/23	1035	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.67	+/-1.44	2.40	+/-1.47		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.599	+/-0.321	0.401	+/-0.344	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	72	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |



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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45

Project: GPCC00101

Sample ID: 608609003

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.15	+/-1.21	1.99	+/-1.24	3.00	pCi/L			JE1	02/22/23	1035	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.29	+/-1.24	1.99	+/-1.27		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.138	+/-0.270	0.495	+/-0.271	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	66.6	(15%-125%)

**Notes:**

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04

Project: GPCC00101

Sample ID: 608609004

Client ID: GPCC001

Matrix: WQ

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.59	+/-1.43	2.07	+/-1.58	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.78	+/-1.45	2.07	+/-1.59		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.199	+/-0.201	0.314	+/-0.203	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	69	(15%-125%)

**Notes:**

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01

Project: GPCC00101

Sample ID: 608609005

Client ID: GPCC001

Matrix: WQ

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.56	+/-1.30	2.05	+/-1.36	3.00	pCi/L			JE1	02/22/23	1035	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.81	+/-1.31	2.05	+/-1.37		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.246	+/-0.190	0.235	+/-0.196	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	62.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50

Project: GPCC00101

Sample ID: 608609006

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.16	+/-1.50	2.07	+/-1.70	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.71	+/-1.61	2.07	+/-1.84		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.55	+/-0.584	0.357	+/-0.706	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	69.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor                   | Mtd.: Method                      |
| DL: Detection Limit                   | PF: Prep Factor                   |
| Lc/LC: Critical Level                 | RL: Reporting Limit               |
| MDA: Minimum Detectable Activity      | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration |                                   |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I

Project: GPCC00101

Sample ID: 608609007

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.72	+/-1.64	2.29	+/-1.89	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.94	+/-1.77	2.29	+/-2.18		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		4.22	+/-0.660	0.203	+/-1.08	1.00	pCi/L			LXP1	02/21/23	0907	2377423	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	71.8	(15%-125%)

### Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: February 23, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I

Project: GPCC00101

Sample ID: 608609008

Client ID: GPCC001

Matrix: WG

Collect Date: 25-JAN-23

Receive Date: 26-JAN-23

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.263	+/-1.22	2.24	+/-1.22	3.00	pCi/L			JE1	02/22/23	1036	2377470	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.53	+/-1.29	2.24	+/-1.31		pCi/L			NXL1	02/23/23	1039	2377469	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.27	+/-0.419	0.312	+/-0.483	1.00	pCi/L			LXP1	02/21/23	0938	2377423	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2377470	71.3	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 608416**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2374673

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608416001	BRA-BRGWA-12S
608416002	BRA-BRGWA-12I
608416003	BRA-BRGWA-23S
608416004	BRA-BRGWA-32S

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2374674

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608416001	BRA-BRGWA-12S
608416002	BRA-BRGWA-12I
608416003	BRA-BRGWA-23S
608416004	BRA-BRGWA-32S
1205305251	Method Blank (MB)
1205305252	608353001(NonSDG) Sample Duplicate (DUP)
1205305253	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2374665

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608416001	BRA-BRGWA-12S
608416002	BRA-BRGWA-12I
608416003	BRA-BRGWA-23S
608416004	BRA-BRGWA-32S
1205305234	Method Blank (MB)
1205305235	608353001(NonSDG) Sample Duplicate (DUP)
1205305236	608353001(NonSDG) Matrix Spike (MS)
1205305237	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205305236 (Non SDG 608353001MS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 608972**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2377494

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608972001	BRA-PZ-66I
608972002	BRA-APBCD-FB-03
608972003	BRA-APBCD-EB-06
608972004	BRA-PZ-57I
608972005	BRA-APBCD-FD03
608972006	BRA-PZ-63I
608972007	BRA-PZ-62I
608972008	BRA-PZ-51S
608972009	BRA-PZ-64I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2377496

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608972001	BRA-PZ-66I
608972002	BRA-APBCD-FB-03
608972003	BRA-APBCD-EB-06
608972004	BRA-PZ-57I
608972005	BRA-APBCD-FD03
608972006	BRA-PZ-63I
608972007	BRA-PZ-62I
608972008	BRA-PZ-51S
608972009	BRA-PZ-64I
1205310055	Method Blank (MB)

1205310056                      608972001(BRA-PZ-66I) Sample Duplicate (DUP)  
1205310057                      Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2377436

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608972001	BRA-PZ-66I
608972002	BRA-APBCD-FB-03
608972003	BRA-APBCD-EB-06
608972004	BRA-PZ-57I
608972005	BRA-APBCD-FD03
608972006	BRA-PZ-63I
608972007	BRA-PZ-62I
608972008	BRA-PZ-51S
608972009	BRA-PZ-64I
1205309940	Method Blank (MB)
1205309941	608972001(BRA-PZ-66I) Sample Duplicate (DUP)
1205309942	608972001(BRA-PZ-66I) Matrix Spike (MS)
1205309943	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205309942 (BRA-PZ-66IMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 609213**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2378773

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609213001	BRA-PZ-68D
609213002	BRA-PZ-69I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2378772

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609213001	BRA-PZ-68D
609213002	BRA-PZ-69I
1205311811	Method Blank (MB)
1205311812	609213001(BRA-PZ-68D) Sample Duplicate (DUP)
1205311813	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however,

they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205311812 (BRA-PZ-68DDUP)	Radium-228	RPD 123* (0.0%-100.0%) RER 2.48 (0-3)

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2378760

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609213001	BRA-PZ-68D
609213002	BRA-PZ-69I
1205311785	Method Blank (MB)
1205311786	609213001(BRA-PZ-68D) Sample Duplicate (DUP)
1205311787	609213001(BRA-PZ-68D) Matrix Spike (MS)
1205311788	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205311787 (BRA-PZ-68DMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 608813**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2377474

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608813001	BRA-BRGWC-25I
608813002	BRA-BRGWC-29I
608813003	BRA-BRGWC-30I
608813004	BRA-APBCD-EB-05
608813005	BRA-APBCD-FB-02
608813006	BRA-PZ-51I
608813007	BRA-APBCD-FD-02
608813008	BRA-BRGWC-47
608813009	BRA-PZ-51D
608813010	BRA-PZ-58I
608813011	BRA-PZ-59I
608813012	BRA-PZ-60I
608813013	BRA-PZ-61I
608813014	BRA-PZ-65I
608813015	BRA-PZ-50D

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2377475

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608813001	BRA-BRGWC-25I
608813002	BRA-BRGWC-29I
608813003	BRA-BRGWC-30I
608813004	BRA-APBCD-EB-05

608813005	BRA-APBCD-FB-02
608813006	BRA-PZ-51I
608813007	BRA-APBCD-FD-02
608813008	BRA-BRGWC-47
608813009	BRA-PZ-51D
608813010	BRA-PZ-58I
608813011	BRA-PZ-59I
608813012	BRA-PZ-60I
608813013	BRA-PZ-61I
608813014	BRA-PZ-65I
608813015	BRA-PZ-50D
1205310037	Method Blank (MB)
1205310038	608813001(BRA-BRGWC-25I) Sample Duplicate (DUP)
1205310039	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205310037 (MB)	Radium-228	Result: 2.59 pCi/L > MDA: 2.40 pCi/L <= RDL: 3.00 pCi/L

**Technical Information**

**Recounts**

Sample 608813013 (BRA-PZ-61I) was recounted to verify sample results. Recount is reported.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2377431

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608813001	BRA-BRGWC-25I
608813002	BRA-BRGWC-29I
608813003	BRA-BRGWC-30I
608813004	BRA-APBCD-EB-05
608813005	BRA-APBCD-FB-02
608813006	BRA-PZ-51I

608813007	BRA-APBCD-FD-02
608813008	BRA-BRGWC-47
608813009	BRA-PZ-51D
608813010	BRA-PZ-58I
608813011	BRA-PZ-59I
608813012	BRA-PZ-60I
608813013	BRA-PZ-61I
608813014	BRA-PZ-65I
608813015	BRA-PZ-50D
1205309919	Method Blank (MB)
1205309920	608813001(BRA-BRGWC-25I) Sample Duplicate (DUP)
1205309921	608813001(BRA-BRGWC-25I) Matrix Spike (MS)
1205309922	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205309920 (BRA-BRGWC-25IDUP)	Radium-226	RPD 34.1* (0.00%-20.00%) RER 1.5 (0-3)

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205309921 (BRA-BRGWC-25IMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 608609**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2377469

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608609001	BRA-PZ-44
608609002	BRA-APBCD-FD-01
608609003	BRA-BRGWC-45
608609004	BRA-APBCD-EB-04
608609005	BRA-APBCD-FB-01
608609006	BRA-BRGWC-50
608609007	BRA-BRGWC-52I
608609008	BRA-BRGWC-27I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2377470

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608609001	BRA-PZ-44
608609002	BRA-APBCD-FD-01
608609003	BRA-BRGWC-45
608609004	BRA-APBCD-EB-04
608609005	BRA-APBCD-FB-01
608609006	BRA-BRGWC-50
608609007	BRA-BRGWC-52I
608609008	BRA-BRGWC-27I
1205310026	Method Blank (MB)
1205310027	608549001(NonSDG) Sample Duplicate (DUP)
1205310028	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205310027 (Non SDG 608549001DUP)	Radium-228	RPD 205* (0.0%-100.0%) RER 1.98 (0-3)

**Technical Information**

**Recounts**

Sample 1205310026 (MB) was recounted due to a suspected blank false positive. The recount is reported.

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2377423

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608609001	BRA-PZ-44
608609002	BRA-APBCD-FD-01
608609003	BRA-BRGWC-45
608609004	BRA-APBCD-EB-04
608609005	BRA-APBCD-FB-01
608609006	BRA-BRGWC-50
608609007	BRA-BRGWC-52I
608609008	BRA-BRGWC-27I
1205309901	Method Blank (MB)
1205309902	608549001(NonSDG) Sample Duplicate (DUP)
1205309903	608549001(NonSDG) Matrix Spike (MS)
1205309904	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where

applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205309903 (Non SDG 608549001MS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date:** February 22, 2023  
**Page 1 of 2**

**Atlanta, Georgia**

**Contact:** Joju Abraham

**Workorder:** 608416

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2374674										
QC1205305252	608353001 DUP										
Radium-228	U	0.970	U	2.08	pCi/L	0		N/A	JE1	02/20/23	12:09
	Uncert:	+/-0.825		+/-1.56							
	TPU:	+/-0.861		+/-1.65							
QC1205305253	LCS										
Radium-228	63.2			59.4	pCi/L		94.1	(75%-125%)	JE1	02/20/23	12:09
	Uncert:			+/-4.09							
	TPU:			+/-15.6							
QC1205305251	MB										
Radium-228			U	0.943	pCi/L				JE1	02/20/23	12:08
	Uncert:			+/-1.15							
	TPU:			+/-1.17							
<b>Rad Ra-226</b>											
Batch	2374665										
QC1205305235	608353001 DUP										
Radium-226	U	0.421		0.410	pCi/L	2.66		(0% - 100%)	LXP1	02/19/23	08:00
	Uncert:	+/-0.327		+/-0.284							
	TPU:	+/-0.333		+/-0.300							
QC1205305237	LCS										
Radium-226	26.5			25.7	pCi/L		97	(75%-125%)	LXP1	02/19/23	08:00
	Uncert:			+/-1.78							
	TPU:			+/-6.47							
QC1205305234	MB										
Radium-226			U	0.365	pCi/L				LXP1	02/19/23	08:00
	Uncert:			+/-0.325							
	TPU:			+/-0.331							
QC1205305236	608353001 MS										
Radium-226	130	U	0.421	110	pCi/L		84.4	(75%-125%)	LXP1	02/19/23	08:00
	Uncert:		+/-0.327	+/-8.72							
	TPU:		+/-0.333	+/-26.5							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 608416

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI	Gamma Spectroscopy--Uncertain identification									
BD	Results are either below the MDC or tracer recovery is low									
h	Preparation or preservation holding time was exceeded									
R	Sample results are rejected									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
N/A	RPD or %Recovery limits do not apply.									
ND	Analyte concentration is not detected above the detection limit									
M	M if above MDC and less than LLD									
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
FA	Failed analysis.									
UJ	Gamma Spectroscopy--Uncertain identification									
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.									
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.									
N1	See case narrative									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
**	Analyte is a Tracer compound									
M	REMP Result > MDC/CL and < RDL									
J	See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date: March 1, 2023**  
**Page 1 of 2**

**Atlanta, Georgia**

**Contact:** Joju Abraham

**Workorder:** 609213

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
<b>Rad Gas Flow</b>									
Batch	2378772								
QC1205311812	609213001 DUP								
Radium-228		3.77	U						
		Uncert:		0.898		123*	(0% - 100%)	JE1	02/28/2308:44
		TPU:		+/-1.37					
		+/-1.52		+/-1.39					
		+/-1.79							
QC1205311813	LCS								
Radium-228	62.8								
				62.1		98.9	(75%-125%)	JE1	02/28/2308:44
				Uncert:					
				+/-4.48					
				TPU:					
				+/-16.4					
QC1205311811	MB								
Radium-228			U						
				-0.511				JE1	02/28/2308:44
				Uncert:					
				+/-1.04					
				TPU:					
				+/-1.04					
<b>Rad Ra-226</b>									
Batch	2378760								
QC1205311786	609213001 DUP								
Radium-226		0.386							
		Uncert:		0.583		40.7	(0% - 100%)	LXP1	02/27/2309:25
		TPU:		+/-0.336					
		+/-0.283		+/-0.352					
		+/-0.289							
QC1205311788	LCS								
Radium-226	26.5								
				25.4		95.6	(75%-125%)	LXP1	02/27/2309:25
				Uncert:					
				+/-1.76					
				TPU:					
				+/-5.48					
QC1205311785	MB								
Radium-226			U						
				0.231				LXP1	02/27/2309:25
				Uncert:					
				+/-0.251					
				TPU:					
				+/-0.256					
QC1205311787	609213001 MS								
Radium-226	130	0.386							
				105		81	(75%-125%)	LXP1	02/27/2309:25
				Uncert:					
				+/-0.283					
				TPU:					
				+/-0.289					
				+/-25.5					

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 609213

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI		Gamma Spectroscopy--Uncertain identification								
BD		Results are either below the MDC or tracer recovery is low								
h		Preparation or preservation holding time was exceeded								
R		Sample results are rejected								
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.								
N/A		RPD or %Recovery limits do not apply.								
ND		Analyte concentration is not detected above the detection limit								
M		M if above MDC and less than LLD								
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
FA		Failed analysis.								
UJ		Gamma Spectroscopy--Uncertain identification								
Q		One or more quality control criteria have not been met. Refer to the applicable narrative or DER.								
K		Analyte present. Reported value may be biased high. Actual value is expected to be lower.								
UL		Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.								
L		Analyte present. Reported value may be biased low. Actual value is expected to be higher.								
N1		See case narrative								
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.								
**		Analyte is a Tracer compound								
M		REMP Result > MDC/CL and < RDL								
J		See case narrative for an explanation								

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: February 23, 2023  
Page 1 of 2

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 608609

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2377470										
QC1205310027	608549001 DUP										
Radium-228		2.25	U	-0.0281	pCi/L	205*		(0% - 100%)	JE1	02/22/23	10:41
	Uncert:	+/-1.46		+/-1.61							
	TPU:	+/-1.57		+/-1.61							
QC1205310028	LCS										
Radium-228	63.8			76.5	pCi/L		120	(75%-125%)	JE1	02/22/23	10:41
	Uncert:			+/-5.01							
	TPU:			+/-20.0							
QC1205310026	MB										
Radium-228			U	2.27	pCi/L				JE1	02/22/23	13:25
	Uncert:			+/-1.59							
	TPU:			+/-1.69							
<b>Rad Ra-226</b>											
Batch	2377423										
QC1205309902	608549001 DUP										
Radium-226		0.455		0.794	pCi/L	54.3		(0% - 100%)	LXP1	02/21/23	10:10
	Uncert:	+/-0.309		+/-0.287							
	TPU:	+/-0.325		+/-0.319							
QC1205309904	LCS										
Radium-226	26.6			26.4	pCi/L		99.2	(75%-125%)	LXP1	02/21/23	10:10
	Uncert:			+/-1.82							
	TPU:			+/-4.75							
QC1205309901	MB										
Radium-226			U	0.272	pCi/L				LXP1	02/21/23	10:10
	Uncert:			+/-0.283							
	TPU:			+/-0.287							
QC1205309903	608549001 MS										
Radium-226	133	0.455		103	pCi/L		77.4	(75%-125%)	LXP1	02/21/23	10:10
	Uncert:	+/-0.309		+/-7.53							
	TPU:	+/-0.325		+/-21.0							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 608609

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI										
BD										
h										
R										
^										
N/A										
ND										
M										
NJ										
FA										
UJ										
Q										
K										
UL										
L										
N1										
Y										
**										
M										
J										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date:** February 28, 2023  
Page 1 of 2

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 608813

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2377475										
QC1205310038	608813001 DUP										
Radium-228	U	1.48	U	0.0306	pCi/L	0		N/A	JE1	02/23/23	11:29
	Uncert:	+/-1.46		+/-1.40							
	TPU:	+/-1.51		+/-1.40							
QC1205310039	LCS										
Radium-228	63.6			76.5	pCi/L		120	(75%-125%)	JE1	02/23/23	11:28
	Uncert:			+/-5.59							
	TPU:			+/-20.5							
QC1205310037	MB										
Radium-228				2.59	pCi/L				JE1	02/23/23	11:29
	Uncert:			+/-1.60							
	TPU:			+/-1.74							
<b>Rad Ra-226</b>											
Batch	2377431										
QC1205309920	608813001 DUP										
Radium-226		1.76		2.48	pCi/L	34.1*		(0%-20%)	LXP1	02/22/23	10:35
	Uncert:	+/-0.501		+/-0.530							
	TPU:	+/-0.594		+/-0.734							
QC1205309922	LCS										
Radium-226	26.6			29.2	pCi/L		110	(75%-125%)	LXP1	02/22/23	10:35
	Uncert:			+/-2.17							
	TPU:			+/-5.07							
QC1205309919	MB										
Radium-226			U	0.264	pCi/L				LXP1	02/22/23	10:35
	Uncert:			+/-0.303							
	TPU:			+/-0.306							
QC1205309921	608813001 MS										
Radium-226	134	1.76		113	pCi/L		83.2	(75%-125%)	LXP1	02/22/23	10:35
	Uncert:	+/-0.501		+/-8.13							
	TPU:	+/-0.594		+/-24.5							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

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- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 608813

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI										
BD										
h										
R										
^										
N/A										
ND										
M										
NJ										
FA										
UJ										
Q										
K										
UL										
L										
N1										
Y										
**										
M										
J										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: March 1, 2023  
Page 1 of 2

Client : Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608972

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
<b>Rad Gas Flow</b>									
Batch	2377496								
QC1205310056	608972001 DUP								
Radium-228	U	1.55	2.20	pCi/L	34.8		(0% - 100%)	JE1	02/28/23 13:21
	Uncert:	+/-1.23	+/-1.19						
	TPU:	+/-1.30	+/-1.31						
QC1205310057	LCS								
Radium-228	63.1		66.9	pCi/L		106	(75%-125%)	JE1	02/28/23 13:22
	Uncert:		+/-4.34						
	TPU:		+/-17.5						
QC1205310055	MB								
Radium-228		U	0.285	pCi/L				JE1	02/28/23 13:21
	Uncert:		+/-1.13						
	TPU:		+/-1.13						
<b>Rad Ra-226</b>									
Batch	2377436								
QC1205309941	608972001 DUP								
Radium-226		0.443	U	0.356	pCi/L	22	(0% - 100%)	LXP1	02/28/23 10:40
	Uncert:	+/-0.344		+/-0.300					
	TPU:	+/-0.354		+/-0.308					
QC1205309943	LCS								
Radium-226	26.5		26.4	pCi/L		99.6	(75%-125%)	LXP1	02/28/23 10:40
	Uncert:		+/-2.15						
	TPU:		+/-6.03						
QC1205309940	MB								
Radium-226		U	0.391	pCi/L				LXP1	02/28/23 10:40
	Uncert:		+/-0.358						
	TPU:		+/-0.365						
QC1205309942	608972001 MS								
Radium-226	128	0.443		102	pCi/L		79.1 (75%-125%)	LXP1	02/28/23 10:40
	Uncert:	+/-0.344		+/-10.2					
	TPU:	+/-0.354		+/-21.8					

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

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- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 608972

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI		Gamma Spectroscopy--Uncertain identification								
BD		Results are either below the MDC or tracer recovery is low								
h		Preparation or preservation holding time was exceeded								
R		Sample results are rejected								
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.								
N/A		RPD or %Recovery limits do not apply.								
ND		Analyte concentration is not detected above the detection limit								
M		M if above MDC and less than LLD								
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
FA		Failed analysis.								
UJ		Gamma Spectroscopy--Uncertain identification								
Q		One or more quality control criteria have not been met. Refer to the applicable narrative or DER.								
K		Analyte present. Reported value may be biased high. Actual value is expected to be lower.								
UL		Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.								
L		Analyte present. Reported value may be biased low. Actual value is expected to be higher.								
N1		See case narrative								
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.								
**		Analyte is a Tracer compound								
M		REMP Result > MDC/CL and < RDL								
J		See case narrative for an explanation								

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

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Page: \_\_\_\_\_ of \_\_\_\_\_

Project # **608413** **GEL** Laboratories LLC  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Quote #: **608416**  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: **608416**  
 GEL Project Manager: **Erin Trent**

Client Name: GA Power  
 Phone # 404-506-7116  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Fax # \_\_\_\_\_

Collected By: **J. Bennett** ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - Indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Sample Analysis Requested (d) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1
						Yes, please supply isotopic info.	(7) Known or possible Hazards	Total number of containers	Cl, F, SO4, TDS, NO3 SM 2540C	Total & Bicarb Alk SM 220B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	
BRA-BR6WA-125	01/24/23	1310	G	N	WG			8	✓	✓	✓	✓	field pH = 5.97 field ferrous iron = 0.0
BRA-BR6WA-121	01/24/23	1450	G	N	WG			8	✓	✓	✓	✓	field pH = 6.48 field ferrous iron = 0.0
BRA-BR6WA-235	01/24/23	1415	G	N	WG			8	✓	✓	✓	✓	field pH = 5.76 field ferrous iron = 0.0
BRA-BR6WC-325	01/24/23	1541	G	N	WG			8	✓	✓	✓	✓	field pH = 6.05 field ferrous iron = 0.0
BRA-													field pH = _____ field ferrous iron = _____

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *[Signature]* 1/25/23 08:29  
 2. *[Signature]* 1-25-23 1338  
 3. \_\_\_\_\_

TAT Requested: Normal:  Yes  No  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR).**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - For yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

Listed Waste  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

Other  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

RCRA Metals  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

TSCA Regulated  
 PCB = Polychlorinated biphenyls

### SAMPLE RECEIPT & REVIEW FORM

Client: <b>GPEC</b>	SDG/AR/COC/Work Order: <b>608413 608416</b>
Received By: <b>PL</b>	Date Received: <b>1/25/23</b>

Carrier and Tracking Number	Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other
-----------------------------	--

<b>Suspected Hazard Information</b>	<b>Yes</b>	<b>No</b>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 <= 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: <u>1</u></span>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
				Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):



Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (6)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)						Comments	
						(7) Known or possible Hazards	(7) Radiactive (if yes, please supply isotopic info)		NI	NI	NI	NI	NI	NI		NI
BRA-PZ-44	01/25/23	1325	G	N	WG			8	8	8	8	8	8	8	8	field pH = 6.13 field ferrous iron = 0.0
BRA-APBCD-FD-01	01/25/23	—	G	N	WG			8	8	8	8	8	8	8	8	field pH = N/A field ferrous iron = —
BRA-BRGWC-415	01/25/23	1440	G	N	WG			8	8	8	8	8	8	8	8	field pH = 5.82 field ferrous iron = 0.0
BRA-APBCD-EB-04	01/25/23	1630	G	N	WQ			8	8	8	8	8	8	8	8	field pH = N/A field ferrous iron = —
BRA-APBCD-FB-01	01/25/23	1305	G	N	WQ			8	8	8	8	8	8	8	8	field pH = N/A field ferrous iron = —

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	1/26/23	<u>[Signature]</u>	1/26/23	8:35
<u>[Signature]</u>	1/26/23	<u>[Signature]</u>	1/26/23	11:5

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Bi,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

**TSCA Regulated**  
PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Work Order Number:** \_\_\_\_\_  
**Client Name:** GA Power  
**Project/Site Name:** Plant Branch Ash Ponds - BCD  
**Address:** 241 Ralph McGill Blvd SE, Atlanta GA 30308  
**Phone #:** 404-506-7116  
**Fax #:** \_\_\_\_\_  
**Collected By:** J. Benvol ACC  
**Send Results To:** SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code (2)	Field Filtered (3)	Sample Matrix (6)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI
						(7) Known or isotopic info) Yes, please supply	(7) possible Hazards		Metals *	EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	<-- Preservative Type (6)	
BRA-BR6WC-50	01/25/23	1325	G	N	WG			8	✓	✓	✓	✓	field pH = 5.18	
BRA-BR6WC-52I	01/25/23	1510	G	N	WG			8	✓	✓	✓	✓	field ferrous iron = 0.0	
BRA-BR6WC-27I	01/25/23	1345	G	W	WG			8	✓	✓	✓	✓	field ferrous iron = 1.0	
BRA-													field pH = 5.63	
BRA-													field ferrous iron = 0.0	
BRA-													field pH =	
BRA-													field ferrous iron =	
BRA-													field pH =	
BRA-													field ferrous iron =	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	1/24/23 0826	<i>[Signature]</i>	1/24/23	8:24
<i>[Signature]</i>	1/24/23 1:15	<i>[Signature]</i>	1/26/23	1:15

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

608602  
608609

Client: **GPCC** SDG/AR/COC/Work Order:  
 Received By: **Stacy Boone** Date Received: **JAN 26, 2023**  
 Carrier and Tracking Number: \_\_\_\_\_  
 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other     

Suspected Hazard Information  Yes  No  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Yes  No  
 Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  Yes  No  
 COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive?  Yes  No  
 Maximum Net Counts Observed\* (Observed Counts - Area Background Counts):      CPM / mR/hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous?  Yes  No  
 COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards?  Yes  No  
 If D or E is yes, select Hazards below:  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: <b>TEMP: 10 x 5</b> *all temperatures are recorded in Celsius
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR3-22 Secondary Temperature Device Serial # (if Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):  
 PM (or PMA) review: Initials AD Date 1/27/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_ of \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (i): \_\_\_\_\_  
 PO Number: \_\_\_\_\_



**Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
**Chain of Custody and Analytical Request**  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: J. J. Pr. 2602 ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code (i)	Field Filtered (ii)	Sample Matrix (iii)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (v)	Preservative Type (vi)	Comments
BRA-BZ6W6-25I	01/26/23	1015	G	N	WG	<input checked="" type="checkbox"/> (7) Known or possible Hazards <input type="checkbox"/> (8) Radioactive (if yes, please supply isotope info)	8	C, F, SO <sub>4</sub> , TDS, NO <sub>3</sub> EPA 300, SM 2540C Total & Bleach Alk SM 220B Metals * EPA 6020, 6010, 7470 Radium 226 & 228 SW-46 9315, 9320 SM 4500 Sulfide	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1 field pH = 6.18 field ferrous iron = 0.0
BRA-BZ6W6-24I	01/26/23	1130	G	N	WG	<input type="checkbox"/> (7) Known or possible Hazards <input type="checkbox"/> (8) Radioactive (if yes, please supply isotope info)	8			field pH = 4.30 field ferrous iron = 5.0
BRA-BZ6W6-30I	01/26/23	1105	G	N	WG	<input type="checkbox"/> (7) Known or possible Hazards <input type="checkbox"/> (8) Radioactive (if yes, please supply isotope info)	8			field pH = 6.28 field ferrous iron = 0.0
BRA-APBCD-EB-05	01/26/23	1400 / 1610	G	N	WQ	<input type="checkbox"/> (7) Known or possible Hazards <input type="checkbox"/> (8) Radioactive (if yes, please supply isotope info)	8			field pH = N/A field ferrous iron = N/A
BRA-APBCD-FB-02	01/26/23	1425	G	N	WQ	<input type="checkbox"/> (7) Known or possible Hazards <input type="checkbox"/> (8) Radioactive (if yes, please supply isotope info)	8			field pH = N/A field ferrous iron = N/A

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[Signature]	1/27/23	0950	[Signature]	1/27/23	0950
[Signature]	1/27/23	213	[Signature]	1/27/23	213

Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
**Chain of Custody and Analytical Request**  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Send Results To: SCS & Geosyntec Contacts  
 Collected By: *J. Brasel ACC*  
 Sample ID: *BRA-PZ-51I*  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code (1)	Field Filtered (2)	Sample Matrix (3)
<i>BRA-BR606-25I</i>	<i>01/26/23</i>	<i>1200</i>	<i>G</i>	<i>N</i>	<i>WG</i>
<i>BRA-APBCD-FD-02</i>	<i>01/26/23</i>	<i>---</i>	<i>G</i>	<i>N</i>	<i>WG</i>
<i>BRA-BR6WC-47</i>	<i>01/26/23</i>	<i>1333</i>	<i>G</i>	<i>N</i>	<i>WG</i>
<i>BRA-PZ-51D</i>	<i>01/26/23</i>	<i>0950</i>	<i>G</i>	<i>N</i>	<i>WG</i>
<i>BRA-PZ-58I</i>	<i>01/26/23</i>	<i>1500</i>	<i>G</i>	<i>N</i>	<i>WG</i>

Chain of Custody Signatures			
Relinquished By (Signed)	Date	Time	Time
<i>[Signature]</i>	<i>1/29/23</i>	<i>0950</i>	<i>18723 950</i>
<i>[Signature]</i>	<i>1/27/23</i>	<i>213</i>	<i>172123 213</i>
<i>[Signature]</i>	<i>1/27/23</i>	<i>213</i>	<i>172123 213</i>

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, if no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls

**RCRA Metals**  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

**Characteristic Hazards**  
 LW = Listed Waste  
 (F,K,P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

**Listed Waste**  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

**Other**  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Should this sample be considered:	Total number of containers	CL, F, SO <sub>4</sub> , TDS, NO <sub>3</sub>	EPA 300, SM 2540C	Total & Biech Alk	SM 2320B	Metals *	EPA 6020, 6010, 7470	Radium 226 & 228	SW-846 9315, 9320	Sulfide	SM 4500	Comments
<input checked="" type="checkbox"/> Known or isotopic info. Yes, please supply	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.44 field ferrous iron = 0.0
<input checked="" type="checkbox"/> Possible Hazards	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = N/A field ferrous iron = N/A
<input checked="" type="checkbox"/>	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.65 field ferrous iron = 0.0
<input checked="" type="checkbox"/>	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 7.20 field ferrous iron = 1.0
<input checked="" type="checkbox"/>	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 3.93 field ferrous iron = 4.0

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Bc,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:



Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (U): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

**GEL Work Order Number:** \_\_\_\_\_ **GEL Project Manager:** Erin Trent

Client Name: GA Power Phone # 404-506-7116

Project/Site Name: Plant Branch Ash Ponds - BCD Fax # \_\_\_\_\_

Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *J. Beasley* ACC Send Results To: SCS & Geosyntec Contacts

Sample ID \_\_\_\_\_

\* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (a)	Sample Matrix (a)	Radioactive (if yes, please supply isotopic info.)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (b) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-PZ-59I	01/26/23	1317	G	N	WG		(?) Known or possible Hazards	8	NI Metals * EPA 6020, 6010, 7470 Total & Bicarb Alk SM 2320B EPA 300, SM 2540C Cl, F, SO4, TDS, NO3 Sulfide SW-846 9315, 920 Radium 226 & 228		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1 field pH = 3.78 field ferrous iron = 6.5
BRA-PZ-60I	01/26/23	1505	6	N	WG			8			field pH = 4.160 field ferrous iron = 0.05
BRA-PZ-61I	01/26/23	1410	6	N	WG			8			field pH = 5.16 field ferrous iron = 0.5
BRA-PZ-65I	01/26/23	1645	6	N	WG			8			field pH = 4.06 field ferrous iron = 6.0
BRA-PZ-50D	01/27/23	0840	6	N	WG			8			field pH = 6.24 field ferrous iron = 4.5

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *Erin Trent* 1/27/23 0950 *Erin Trent* 1/27/23 950  
 2. *Erin Trent* 1/27/23 2:13 *Erin Trent* 1/27/23 213

3. \_\_\_\_\_  
 > For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SF=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS
 

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns: (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

Client: GPOC SDG/AR/COC/Work Order: 608803, 608813 ET  
 Received By: Thyasia Tatum Date Received: 1-27-23

Carrier and Tracking Number  
 FedEx Express FedEx Ground UPS Field Services Courier (Other)

Suspected Hazard Information  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Yes  No Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  Yes  No COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive?  Yes  No Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous?  Yes  No COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards?  Yes  No If D or E is yes, select Hazards below.  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>R2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AT Date 1/31/23 Page 1 of 1



Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: T. Gobie ACC  
 Phone # 404-506-7116  
 Fax #  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1
						Radioactive (if yes - please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	Metals *	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	Preservative Type (6)	
BRA- PZ-68D	02/01/23	1416	G	N	WG	N	N	8	✓	✓	✓	field pH = 7.28 field ferrous iron = 0.0	
BRA- PZ-69I	02/01/23	1247	G	N	WG	N	N	8	✓	✓	✓	field pH = 6.18 field ferrous iron = 0.0	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>T. Gobie</i>	2-23	0959	<i>Erin Trent</i>	2/23	9:59
<i>Erin Trent</i>	2/23	2:20	<i>Erin Trent</i>	2/23	2:20

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Bc,Cd,Cr,Co,Ph,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR).**

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1)  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste  
 Waste code(s):  
 TSCA Regulated: PCB = Polychlorinated biphenyls  
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals  
 Pb = Lead  
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)





Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

609213

1609212

Client: GPCC SDG/AR/COC/Work Order: 609211 | 1609212

Received By: Stacy Boone Date Received: 2/2/2023

Carrier and Tracking Number  
Circle Applicable:  
FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information Yes No \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous? Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples are to be received as radioactive? COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive? Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous? COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards? If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria Yes NA No Comments/Qualifiers (Required for Non-Conforming Items)

1 Shipping containers received intact and sealed? Circle Applicable: Seals broken Damaged container Leaking container Other (describe)

2 Chain of custody documents included with shipment? Circle Applicable: Client contacted and provided COC COC created upon receipt

3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?\* Preservation Method: Wet Ice Ice Packs Dry ice None Other: TEMP: ice \*all temperatures are recorded in Celsius

4 Daily check performed and passed on IR temperature gun? Temperature Device Serial #: IR3-22 Secondary Temperature Device Serial # (If Applicable):

5 Sample containers intact and sealed? Circle Applicable: Seals broken Damaged container Leaking container Other (describe)

6 Samples requiring chemical preservation at proper pH? Sample ID's and Containers Affected: If Preservation added, Lot#:

7 Do any samples require Volatile Analysis? If Yes, are Encores or Soil Kits present for solids? Yes \_\_\_ No \_\_\_ NA \_\_\_ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes \_\_\_ No \_\_\_ NA \_\_\_ (If unknown, select No) Are liquid VOA vials free of headspace? Yes \_\_\_ No \_\_\_ NA \_\_\_ Sample ID's and containers affected:

8 Samples received within holding time? ID's and tests affected:

9 Sample ID's on COC match ID's on bottles? ID's and containers affected:

10 Date & time on COC match date & time on bottles? Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)

11 Number of containers received match number indicated on COC? Circle Applicable: No container count on COC Other (describe)

12 Are sample containers identifiable as GEL provided by use of GEL labels? Circle Applicable: Not relinquished Other (describe)

13 COC form is properly signed in relinquished/received sections? Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials Am Date 2/3/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # **608969** **GEL** Laboratories LLC  
 GEL Quote #: **608972** Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 COC Number **01** **Chain of Custody and Analytical Request**  
 PO Number: **GEL Work Order Number: 608972** GEL Project Manager: Erin Trent

Client Name: GA Power Phone # 404-506-7116  
 Project/Site Name: Plant Branch Ash Ponds - BCD Fax #  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: **J. Perbach** ACC Send Results To: SCS & Geosyntec Contacts

Sample ID	Date Collected (mm/dd/yyyy)	*Time Collected (Military (hhmm))	QC Code	Field Filtered	Sample Matrix	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)				Preservative Type (6)	Comments
						Yes, please supply isotopic info.	Possible Hazards		NI	NI	NI	NI		
BRA-PZ-66I	01/30/23 02/03/23	1420	G	N	WG			8	Cl, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bieard Air SM 2320B	Metals * EPA 6020, 6010, 7470	Redum 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	QC	Note: extra sample is required for sample specific Task Code: BRA-CCR-ASSMT-2023S1	
BRA-APBCD-FB-03	01/30/23 02/03/23	1950	G	N	WG			8					field pH = 5.64 field ferrous iron = 6.0	
BRA-APBCD-E3-06	01/30/23 02/03/23	1515	G	N	WG			8					field pH = _____ field ferrous iron = _____	
BRA-PZ-57I	01/30/23 02/03/23	1425	G	N	WG			8					field pH = 5.39 field ferrous iron = 6.0	
BRA-APBCD-FD-03	01/30/23 02/03/23	---	G	N	WG			8					field pH = _____ field ferrous iron = _____	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1/30/23	1800	<i>[Signature]</i>	1/30/23	1800
<i>[Signature]</i>	1/31/23	0901	<i>[Signature]</i>	1/31/23	901

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Co, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: **2** °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, VW=Waste Water, WL=Leachate, SO=Soil, SB=Soil, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
AS = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste F, K, P and U-listed wastes. Waste code(s):	OT = Other / Unknown. (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

Please provide any additional details below regarding handling and/or disposal concerns: (i.e. Origin of sample(s), type of site collected from, odd matrices, etc.)

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_  
**GEL Project Manager:** Erin Trent  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

**Client Name:** GA Power  
**Project/Site Name:** Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308  
**Collected By:** J. Ryan *[Signature]* ACC  
 Send Results To: SCS & Geosyntec Contacts

**Sample ID**  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code	Field Filtered	Sample Matrix
BRA-PZ-63I	01/30/23 <del>02/07/23</del>	1340	G	N	WG
BRA-PZ-625	01/30/23 <del>02/07/23</del>	1300	G	N	WG
BRA-PZ-515	01/30/23 <del>02/07/23</del>	1530	G	N	WG
BRA-PZ-64I	01/30/23 <del>02/07/23</del>	1700	G	N	WG

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	2/3/23	1800	<i>[Signature]</i>	1/30/23	1800
<i>[Signature]</i>	1/31/23	0901	<i>[Signature]</i>	1/30/23	1800

**Chain of Custody Signatures**  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Should this sample be considered:	Total number of containers	Metals *	Radionuclides	Field pH	Field ferrous iron
Yes, please supply isotopic info	8	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total & Bicarb Alk SM 220B	Strontium 226 & 228 SW-846 9915, 9920 Sulfide SM 4500	5.66	1.0
No	8			5.38	
No	8			6.18	0.5
No	8			5.33	0.0
No				0.0	

**Sample Analysis Requested** (Fill in the number of containers for each test)  
 <- Preservative Type (6)  
 Comments  
 Note: extra sample is required for sample specific QC  
 Task Code: BRA-CCR-ASSMT-2023S1

SAMPLE RECEIPT & REVIEW FORM

ET

Client: <u>GAC</u>		SDG/AR/COC/Work Order: <u>608969 608972</u>			
Received By: <u>MVH</u>		Date Received: <u>01-31-2023</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services <u>Courier</u> Other <u>cooler 3-1</u> <u>cooler 2-2</u> <u>cooler 1-1</u>			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>00</u> CPM/mR/Hr Classified as: Rad 1    Rad 2    Rad 3			
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable:    Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable:    Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius    TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable:    Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: <u>BRA-P2-571, BRA-P2-661, BRA-P2-641</u> If Preservation added, Lot #: <u>1344-13 Sodium Hydroxide</u>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable:    No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable:    No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable:    Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials AM Date 2/1/23 Page 1 of 1

**List of current GEL Certifications as of 22 February 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**List of current GEL Certifications as of 01 March 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**List of current GEL Certifications as of 01 March 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**List of current GEL Certifications as of 28 February 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**List of current GEL Certifications as of 23 February 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



February 14, 2023

Kelley Sharpe  
ARCADIS - Atlanta  
2839 Paces Ferry Rd  
STE 900  
Atlanta, GA 30339

RE: Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on February 01, 2023. 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.

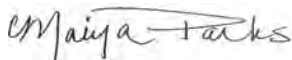
The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

Rev. 1 - This replaces the February 9, 2023 final report, see Project Narrative.

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

Sincerely,



Maiya Parks  
maiya.parks@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Ben Hodges, Georgia Power  
Warren Johnson, ARCADIS - Atlanta  
Laura Midkiff, Georgia Power  
Tina Sullivan, ERM



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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### **Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92649872001	BRA-LR-1(Surface)	Water	02/01/23 11:49	02/01/23 15:10
92649872002	BRA-LR-1(Mid)	Water	02/01/23 11:52	02/01/23 15:10
92649872003	BRA-LR-1(Bottom)	Water	02/01/23 11:57	02/01/23 15:10
92649872004	BRA-LR+8A(Surface)	Water	02/01/23 12:22	02/01/23 15:10
92649872005	BRA-LR+9A(Surface)	Water	02/01/23 12:25	02/01/23 15:10
92649872006	BRA-LR+8(Surface)	Water	02/01/23 11:30	02/01/23 15:10
92649872007	BRA-LR+8(Mid)	Water	02/01/23 11:35	02/01/23 15:10
92649872008	BRA-LR+8(Bottom)	Water	02/01/23 11:38	02/01/23 15:10
92649872009	BRA-LR+9(Surface)	Water	02/01/23 11:17	02/01/23 15:10
92649872010	BRA-LR+9(Mid)	Water	02/01/23 11:20	02/01/23 15:10
92649872011	BRA-LR+9(Bottom)	Water	02/01/23 11:24	02/01/23 15:10
92649872012	BRA-LR+10(Surface)	Water	02/01/23 10:55	02/01/23 15:10
92649872013	BRA-LR+10(Mid)	Water	02/01/23 10:58	02/01/23 15:10
92649872014	BRA-LR+10(Bottom)	Water	02/01/23 11:05	02/01/23 15:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92649872001	BRA-LR-1(Surface)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872002	BRA-LR-1(Mid)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872003	BRA-LR-1(Bottom)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872004	BRA-LR+8A(Surface)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872005	BRA-LR+9A(Surface)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872006	BRA-LR+8(Surface)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872007	BRA-LR+8(Mid)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872008	BRA-LR+8(Bottom)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92649872009	BRA-LR+9(Surface)	SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
92649872010	BRA-LR+9(Mid)	SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
92649872011	BRA-LR+9(Bottom)	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92649872012	BRA-LR+10(Surface)	EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
92649872013	BRA-LR+10(Mid)	EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
92649872014	BRA-LR+10(Bottom)	SM 2540C-2015	BTS	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	BTS	1	PASI-GA

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

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**Date:** February 14, 2023

Georgia Power EQulS Database Manager requested Pace Project Manager add "BRA-" to each Sample ID.

BRA-LR-10(mid) was updated to BRA-LR+10(mid), BRA-LR-10(bottom) was updated to BRA-LR+10(bottom).

These updates ensure the sample nomenclature is followed on final PDF and EDD for successful upload of laboratory data into the Georgia Power EQulS database

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: BRA-LR-1(Surface)      Lab ID: 92649872001      Collected: 02/01/23 11:49      Received: 02/01/23 15:10      Matrix: Water</b>								
<b>6010D ATL ICP</b> Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.4	mg/L	0.20	1	02/02/23 12:14	02/07/23 15:38	7440-09-7	
Sodium	3.8	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:38	7440-23-5	
Calcium	3.9	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:38	7440-70-2	
Magnesium	1.8	mg/L	0.050	1	02/02/23 12:14	02/07/23 15:38	7439-95-4	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 21:29	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 21:29	7440-48-4	
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	78.0	mg/L	25.0	1		02/06/23 17:55		
<b>2320B Alkalinity</b> Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.4	mg/L	5.0	1		02/03/23 15:45		
Alkalinity, Total as CaCO <sub>3</sub>	20.4	mg/L	5.0	1		02/03/23 15:45		
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	3.1	mg/L	1.0	1		02/03/23 03:38	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 03:38	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		02/03/23 03:38	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR-1(Mid)		Lab ID: 92649872002		Collected: 02/01/23 11:52	Received: 02/01/23 15:10	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	2.5	mg/L	0.20	1	02/02/23 12:14	02/07/23 15:42	7440-09-7	
Sodium	3.8	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:42	7440-23-5	
Calcium	4.0	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:42	7440-70-2	
Magnesium	1.9	mg/L	0.050	1	02/02/23 12:14	02/07/23 15:42	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 21:35	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 21:35	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	60.0	mg/L	25.0	1		02/06/23 17:55		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	20.2	mg/L	5.0	1		02/03/23 15:51		
Alkalinity, Total as CaCO <sub>3</sub>	20.2	mg/L	5.0	1		02/03/23 15:51		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	3.0	mg/L	1.0	1		02/03/23 04:04	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 04:04	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		02/03/23 04:04	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

<b>Sample: BRA-LR-1(Bottom)</b>		<b>Lab ID: 92649872003</b>		Collected: 02/01/23 11:57	Received: 02/01/23 15:10	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	<b>2.4</b>	mg/L	0.20	1	02/02/23 12:14	02/07/23 15:47	7440-09-7	
Sodium	<b>3.6</b>	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:47	7440-23-5	
Calcium	<b>3.8</b>	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:47	7440-70-2	
Magnesium	<b>1.8</b>	mg/L	0.050	1	02/02/23 12:14	02/07/23 15:47	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 21:53	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 21:53	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>69.0</b>	mg/L	25.0	1		02/06/23 17:56		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>17.8</b>	mg/L	5.0	1		02/03/23 15:57		
Alkalinity, Total as CaCO <sub>3</sub>	<b>17.8</b>	mg/L	5.0	1		02/03/23 15:57		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.1</b>	mg/L	1.0	1		02/03/23 04:30	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 04:30	16984-48-8	
Sulfate	<b>2.3</b>	mg/L	1.0	1		02/03/23 04:30	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR+8A(Surface)		Lab ID: 92649872004	Collected: 02/01/23 12:22	Received: 02/01/23 15:10	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	2.6	mg/L	0.20	1	02/02/23 12:14	02/07/23 15:52	7440-09-7	
Sodium	4.4	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:52	7440-23-5	
Calcium	4.9	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:52	7440-70-2	
Magnesium	2.2	mg/L	0.050	1	02/02/23 12:14	02/07/23 15:52	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 21:59	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 21:59	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	75.0	mg/L	25.0	1		02/06/23 17:56		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	24.5	mg/L	5.0	1		02/03/23 16:03		
Alkalinity, Total as CaCO <sub>3</sub>	24.5	mg/L	5.0	1		02/03/23 16:03		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	3.5	mg/L	1.0	1		02/03/23 05:47	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 05:47	16984-48-8	
Sulfate	3.8	mg/L	1.0	1		02/03/23 05:47	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR+9A(Surface)		Lab ID: 92649872005		Collected: 02/01/23 12:25		Received: 02/01/23 15:10		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.6	mg/L	0.20	1	02/02/23 12:14	02/07/23 15:57	7440-09-7		
Sodium	4.7	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:57	7440-23-5		
Calcium	5.6	mg/L	1.0	1	02/02/23 12:14	02/07/23 15:57	7440-70-2		
Magnesium	2.5	mg/L	0.050	1	02/02/23 12:14	02/07/23 15:57	7439-95-4		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 22:05	7440-42-8		
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 22:05	7440-48-4		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	84.0	mg/L	25.0	1		02/06/23 13:40		D6	
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	24.5	mg/L	5.0	1		02/03/23 16:09			
Alkalinity, Total as CaCO <sub>3</sub>	24.5	mg/L	5.0	1		02/03/23 16:09			
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.6	mg/L	1.0	1		02/03/23 06:13	16887-00-6		
Fluoride	ND	mg/L	0.10	1		02/03/23 06:13	16984-48-8		
Sulfate	6.6	mg/L	1.0	1		02/03/23 06:13	14808-79-8		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

<b>Sample: BRA-LR+8(Surface)</b>		<b>Lab ID: 92649872006</b>		Collected: 02/01/23 11:30	Received: 02/01/23 15:10	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	<b>2.5</b>	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:02	7440-09-7	
Sodium	<b>3.9</b>	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:02	7440-23-5	
Calcium	<b>4.3</b>	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:02	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:02	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 22:29	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 22:29	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>171</b>	mg/L	25.0	1		02/06/23 13:41		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>22.7</b>	mg/L	5.0	1		02/03/23 16:15		
Alkalinity, Total as CaCO <sub>3</sub>	<b>22.7</b>	mg/L	5.0	1		02/03/23 16:15		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.2</b>	mg/L	1.0	1		02/03/23 06:39	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 06:39	16984-48-8	
Sulfate	<b>2.5</b>	mg/L	1.0	1		02/03/23 06:39	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR+8(Mid)		Lab ID: 92649872007		Collected: 02/01/23 11:35		Received: 02/01/23 15:10		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.5	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:07	7440-09-7		
Sodium	4.0	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:07	7440-23-5		
Calcium	4.3	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:07	7440-70-2		
Magnesium	2.0	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:07	7439-95-4		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 22:35	7440-42-8		
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 22:35	7440-48-4		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	100	mg/L	25.0	1		02/06/23 13:41			
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	22.8	mg/L	5.0	1		02/03/23 16:21			
Alkalinity, Total as CaCO <sub>3</sub>	22.8	mg/L	5.0	1		02/03/23 16:21			
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.2	mg/L	1.0	1		02/03/23 07:56	16887-00-6		
Fluoride	ND	mg/L	0.10	1		02/03/23 07:56	16984-48-8		
Sulfate	2.5	mg/L	1.0	1		02/03/23 07:56	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

Sample: BRA-LR+8(Bottom)	Lab ID: 92649872008	Collected: 02/01/23 11:38	Received: 02/01/23 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.6	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:11	7440-09-7	
Sodium	3.9	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:11	7440-23-5	
Calcium	4.5	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:11	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:11	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 22:40	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 22:40	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	86.0	mg/L	25.0	1		02/06/23 13:42		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	22.0	mg/L	5.0	1		02/03/23 16:27		
Alkalinity, Total as CaCO <sub>3</sub>	22.0	mg/L	5.0	1		02/03/23 16:27		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.2	mg/L	1.0	1		02/03/23 08:22	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 08:22	16984-48-8	
Sulfate	2.4	mg/L	1.0	1		02/03/23 08:22	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: BRA-LR+9(Surface)      Lab ID: 92649872009      Collected: 02/01/23 11:17      Received: 02/01/23 15:10      Matrix: Water</b>								
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.4	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:16	7440-09-7	
Sodium	4.2	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:16	7440-23-5	
Calcium	4.6	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:16	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:16	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 22:46	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 22:46	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	97.0	mg/L	25.0	1		02/06/23 13:42		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	23.6	mg/L	5.0	1		02/03/23 16:43		
Alkalinity, Total as CaCO <sub>3</sub>	23.6	mg/L	5.0	1		02/03/23 16:43		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	3.4	mg/L	1.0	1		02/03/23 08:48	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 08:48	16984-48-8	
Sulfate	2.8	mg/L	1.0	1		02/03/23 08:48	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR+9(Mid)	Lab ID: 92649872010	Collected: 02/01/23 11:20	Received: 02/01/23 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.5	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:41	7440-09-7	
Sodium	4.1	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:41	7440-23-5	
Calcium	4.4	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:41	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:41	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 23:04	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 23:04	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	67.0	mg/L	25.0	1		02/05/23 14:04		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	23.0	mg/L	5.0	1		02/03/23 16:49		
Alkalinity, Total as CaCO <sub>3</sub>	23.0	mg/L	5.0	1		02/03/23 16:49		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.4	mg/L	1.0	1		02/03/23 09:14	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 09:14	16984-48-8	
Sulfate	2.6	mg/L	1.0	1		02/03/23 09:14	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

Sample: BRA-LR+9(Bottom)	Lab ID: 92649872011	Collected: 02/01/23 11:24	Received: 02/01/23 15:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.5	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:46	7440-09-7	
Sodium	4.0	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:46	7440-23-5	
Calcium	4.4	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:46	7440-70-2	
Magnesium	2.0	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:46	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 23:10	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 23:10	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	60.0	mg/L	25.0	1		02/05/23 14:04		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	22.8	mg/L	5.0	1		02/03/23 17:07		
Alkalinity, Total as CaCO <sub>3</sub>	22.8	mg/L	5.0	1		02/03/23 17:07		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.4	mg/L	1.0	1		02/03/23 09:40	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 09:40	16984-48-8	
Sulfate	2.7	mg/L	1.0	1		02/03/23 09:40	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

<b>Sample: BRA-LR+10(Surface)</b>		<b>Lab ID: 92649872012</b>		Collected: 02/01/23 10:55	Received: 02/01/23 15:10	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	<b>2.6</b>	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:51	7440-09-7	
Sodium	<b>4.3</b>	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:51	7440-23-5	
Calcium	<b>4.5</b>	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:51	7440-70-2	
Magnesium	<b>2.0</b>	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:51	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 23:16	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 23:16	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>57.0</b>	mg/L	25.0	1		02/05/23 14:05		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>23.1</b>	mg/L	5.0	1		02/03/23 17:53		
Alkalinity, Total as CaCO <sub>3</sub>	<b>23.1</b>	mg/L	5.0	1		02/03/23 17:53		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.7</b>	mg/L	1.0	1		02/03/23 10:06	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 10:06	16984-48-8	
Sulfate	<b>2.7</b>	mg/L	1.0	1		02/03/23 10:06	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR+10(Mid)		Lab ID: 92649872013		Collected: 02/01/23 10:58		Received: 02/01/23 15:10		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Potassium	2.5	mg/L	0.20	1	02/02/23 12:14	02/07/23 16:56	7440-09-7		
Sodium	4.7	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:56	7440-23-5		
Calcium	4.5	mg/L	1.0	1	02/02/23 12:14	02/07/23 16:56	7440-70-2		
Magnesium	2.0	mg/L	0.050	1	02/02/23 12:14	02/07/23 16:56	7439-95-4		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 23:22	7440-42-8		
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 23:22	7440-48-4		
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	60.0	mg/L	25.0	1		02/05/23 14:05			
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	23.9	mg/L	5.0	1		02/03/23 18:00			
Alkalinity, Total as CaCO <sub>3</sub>	23.9	mg/L	5.0	1		02/03/23 18:00			
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.1	mg/L	1.0	1		02/03/23 11:23	16887-00-6		
Fluoride	ND	mg/L	0.10	1		02/03/23 11:23	16984-48-8		
Sulfate	2.8	mg/L	1.0	1		02/03/23 11:23	14808-79-8		

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## ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Sample: BRA-LR+10(Bottom)		Lab ID: 92649872014	Collected: 02/01/23 11:05	Received: 02/01/23 15:10	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.6	mg/L	0.20	1	02/02/23 12:14	02/07/23 17:01	7440-09-7	
Sodium	4.1	mg/L	1.0	1	02/02/23 12:14	02/07/23 17:01	7440-23-5	
Calcium	4.5	mg/L	1.0	1	02/02/23 12:14	02/07/23 17:01	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	02/02/23 12:14	02/07/23 17:01	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	02/03/23 09:57	02/06/23 23:28	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	02/03/23 09:57	02/06/23 23:28	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	64.0	mg/L	25.0	1		02/05/23 14:05		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	23.8	mg/L	5.0	1		02/03/23 18:06		
Alkalinity, Total as CaCO <sub>3</sub>	23.8	mg/L	5.0	1		02/03/23 18:06		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0 Rev 2.1 1993								
Pace Analytical Services - Asheville								
Chloride	3.5	mg/L	1.0	1		02/03/23 13:32	16887-00-6	
Fluoride	ND	mg/L	0.10	1		02/03/23 13:32	16984-48-8	
Sulfate	2.6	mg/L	1.0	1		02/03/23 13:32	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

QC Batch:	753463	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011, 92649872012, 92649872013, 92649872014

METHOD BLANK: 3914676 Matrix: Water  
Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011, 92649872012, 92649872013, 92649872014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	02/07/23 14:20	
Magnesium	mg/L	ND	0.050	02/07/23 14:20	
Potassium	mg/L	ND	0.20	02/07/23 14:20	
Sodium	mg/L	ND	1.0	02/07/23 14:20	

LABORATORY CONTROL SAMPLE: 3914677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	.96J	96	80-120	
Magnesium	mg/L	1	0.98	98	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3914678 3914679

Parameter	Units	92649600001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Calcium	mg/L	10.5	1	12.1	11.4	154	87	75-125	6	20	M1	
Magnesium	mg/L	2.8	1	3.8	3.7	100	82	75-125	5	20		
Potassium	mg/L	2.8	1	3.4	3.4	61	60	75-125	0	20	M1	
Sodium	mg/L	ND	1	5.3	4.9J	137	105	75-125		20	M1	

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

QC Batch: 753454 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011, 92649872012, 92649872013, 92649872014

METHOD BLANK: 3914619 Matrix: Water  
Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011, 92649872012, 92649872013, 92649872014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	02/06/23 20:41	
Cobalt	mg/L	ND	0.0050	02/06/23 20:41	

LABORATORY CONTROL SAMPLE: 3914620

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.91	91	80-120	
Cobalt	mg/L	0.1	0.089	89	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3914621 3914622

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92649872005 Result	Spike Conc.	Spike Conc.	Conc.								
Boron	mg/L	ND	1	1	1	0.95	0.94	94	93	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.1	0.097	0.092	97	92	75-125	6	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

QC Batch:	753781	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004

METHOD BLANK: 3916195 Matrix: Water  
Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	02/06/23 17:51	

LABORATORY CONTROL SAMPLE: 3916196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	80-120	

SAMPLE DUPLICATE: 3916197

Parameter	Units	92650182003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	147	153	4	10	

SAMPLE DUPLICATE: 3916198

Parameter	Units	92650163003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	156	67	10 D6	

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

QC Batch: 753832 Analysis Method: SM 2540C-2015  
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92649872010, 92649872011, 92649872012, 92649872013, 92649872014

METHOD BLANK: 3916393 Matrix: Water  
Associated Lab Samples: 92649872010, 92649872011, 92649872012, 92649872013, 92649872014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	02/05/23 14:03	

LABORATORY CONTROL SAMPLE: 3916394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	382	96	80-120	

SAMPLE DUPLICATE: 3916858

Parameter	Units	92649872010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	67.0	69.0	3	10	

SAMPLE DUPLICATE: 3916859

Parameter	Units	92650181004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	536	543	1	10	

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

QC Batch: 754074 Analysis Method: SM 2540C-2015  
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92649872005, 92649872006, 92649872007, 92649872008, 92649872009

METHOD BLANK: 3917190 Matrix: Water  
Associated Lab Samples: 92649872005, 92649872006, 92649872007, 92649872008, 92649872009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	02/06/23 13:39	

LABORATORY CONTROL SAMPLE: 3917191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	80-120	

SAMPLE DUPLICATE: 3917192

Parameter	Units	92649872005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	84.0	70.0	18	10	D6

SAMPLE DUPLICATE: 3917193

Parameter	Units	92649235044 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1820	1450	22	10	D6

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

QC Batch: 753730 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011

METHOD BLANK: 3916033 Matrix: Water  
Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	02/03/23 14:23	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	02/03/23 14:23	

LABORATORY CONTROL SAMPLE: 3916034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.3	101	80-120	

LABORATORY CONTROL SAMPLE: 3916035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3916036 3916037

Parameter	Units	3916036		3916037		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92649872010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	23.0	50	50	72.5	75.0	99	104	80-120	3	25

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3916038 3916039

Parameter	Units	3916038		3916039		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92649872011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	22.8	50	50	73.3	72.6	101	100	80-120	1	25

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

QC Batch: 753731 Analysis Method: SM 2320B-2011  
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92649872012, 92649872013, 92649872014

METHOD BLANK: 3916040 Matrix: Water

Associated Lab Samples: 92649872012, 92649872013, 92649872014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	02/03/23 17:35	
Alkalinity, Bicarbonate (CaCO3)	mg/L	ND	5.0	02/03/23 17:35	

LABORATORY CONTROL SAMPLE: 3916041

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.2	102	80-120	

LABORATORY CONTROL SAMPLE: 3916042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.9	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3916043 3916044

Parameter	Units	3916043		3916044		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result							
Alkalinity, Total as CaCO3	mg/L	16.6	50	50	67.3	68.8	101	104	80-120	2	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3916045 3916046

Parameter	Units	3916045		3916046		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result							
Alkalinity, Total as CaCO3	mg/L	16.8	50	50	68.5	69.0	104	105	80-120	1	25	

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

QC Batch: 753382 Analysis Method: EPA 300.0 Rev 2.1 1993

QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011, 92649872012

METHOD BLANK: 3914247 Matrix: Water

Associated Lab Samples: 92649872001, 92649872002, 92649872003, 92649872004, 92649872005, 92649872006, 92649872007, 92649872008, 92649872009, 92649872010, 92649872011, 92649872012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	02/02/23 21:11	
Fluoride	mg/L	ND	0.10	02/02/23 21:11	
Sulfate	mg/L	ND	1.0	02/02/23 21:11	

LABORATORY CONTROL SAMPLE: 3914248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.5	101	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	50.7	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3914249 3914250

Parameter	Units	92649440005		3914250		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	ND	50	48.9	49.1	98	98	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.7	2.6	107	102	90-110	4	10	
Sulfate	mg/L	ND	50	48.7	48.7	97	97	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3914251 3914252

Parameter	Units	92649872003		3914252		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.1	50	52.5	52.9	99	100	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	98	99	90-110	1	10	
Sulfate	mg/L	2.3	50	51.6	52.0	99	99	90-110	1	10	

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### QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

QC Batch: 753396 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92649872013, 92649872014

METHOD BLANK: 3914289 Matrix: Water  
Associated Lab Samples: 92649872013, 92649872014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	02/03/23 10:31	
Fluoride	mg/L	ND	0.10	02/03/23 10:31	
Sulfate	mg/L	ND	1.0	02/03/23 10:31	

LABORATORY CONTROL SAMPLE: 3914290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	52.3	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3914291 3914292

Parameter	Units	92649872013		MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	4.1	50	50	54.2	54.6	100	101	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	100	101	90-110	1	10		
Sulfate	mg/L	2.8	50	50	52.9	53.3	100	101	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3914293 3914294

Parameter	Units	92649378004		MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Chloride	mg/L	83.4	50	50	124	123	80	80	90-110	0	10	M1	
Fluoride	mg/L	0.087J	2.5	2.5	2.6	2.6	101	101	90-110	0	10		
Sulfate	mg/L	895	50	50	936	932	82	75	90-110	0	10	M1	

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## QUALIFIERS

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

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### 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Branch-CCR Ash Pond-Revised Report

Pace Project No.: 92649872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92649872001	BRA-LR-1(Surface)	EPA 3010A	753463	EPA 6010D	753528
92649872002	BRA-LR-1(Mid)	EPA 3010A	753463	EPA 6010D	753528
92649872003	BRA-LR-1(Bottom)	EPA 3010A	753463	EPA 6010D	753528
92649872004	BRA-LR+8A(Surface)	EPA 3010A	753463	EPA 6010D	753528
92649872005	BRA-LR+9A(Surface)	EPA 3010A	753463	EPA 6010D	753528
92649872006	BRA-LR+8(Surface)	EPA 3010A	753463	EPA 6010D	753528
92649872007	BRA-LR+8(Mid)	EPA 3010A	753463	EPA 6010D	753528
92649872008	BRA-LR+8(Bottom)	EPA 3010A	753463	EPA 6010D	753528
92649872009	BRA-LR+9(Surface)	EPA 3010A	753463	EPA 6010D	753528
92649872010	BRA-LR+9(Mid)	EPA 3010A	753463	EPA 6010D	753528
92649872011	BRA-LR+9(Bottom)	EPA 3010A	753463	EPA 6010D	753528
92649872012	BRA-LR+10(Surface)	EPA 3010A	753463	EPA 6010D	753528
92649872013	BRA-LR+10(Mid)	EPA 3010A	753463	EPA 6010D	753528
92649872014	BRA-LR+10(Bottom)	EPA 3010A	753463	EPA 6010D	753528
92649872001	BRA-LR-1(Surface)	EPA 3005A	753454	EPA 6020B	753819
92649872002	BRA-LR-1(Mid)	EPA 3005A	753454	EPA 6020B	753819
92649872003	BRA-LR-1(Bottom)	EPA 3005A	753454	EPA 6020B	753819
92649872004	BRA-LR+8A(Surface)	EPA 3005A	753454	EPA 6020B	753819
92649872005	BRA-LR+9A(Surface)	EPA 3005A	753454	EPA 6020B	753819
92649872006	BRA-LR+8(Surface)	EPA 3005A	753454	EPA 6020B	753819
92649872007	BRA-LR+8(Mid)	EPA 3005A	753454	EPA 6020B	753819
92649872008	BRA-LR+8(Bottom)	EPA 3005A	753454	EPA 6020B	753819
92649872009	BRA-LR+9(Surface)	EPA 3005A	753454	EPA 6020B	753819
92649872010	BRA-LR+9(Mid)	EPA 3005A	753454	EPA 6020B	753819
92649872011	BRA-LR+9(Bottom)	EPA 3005A	753454	EPA 6020B	753819
92649872012	BRA-LR+10(Surface)	EPA 3005A	753454	EPA 6020B	753819
92649872013	BRA-LR+10(Mid)	EPA 3005A	753454	EPA 6020B	753819
92649872014	BRA-LR+10(Bottom)	EPA 3005A	753454	EPA 6020B	753819
92649872001	BRA-LR-1(Surface)	SM 2540C-2015	753781		
92649872002	BRA-LR-1(Mid)	SM 2540C-2015	753781		
92649872003	BRA-LR-1(Bottom)	SM 2540C-2015	753781		
92649872004	BRA-LR+8A(Surface)	SM 2540C-2015	753781		
92649872005	BRA-LR+9A(Surface)	SM 2540C-2015	754074		
92649872006	BRA-LR+8(Surface)	SM 2540C-2015	754074		
92649872007	BRA-LR+8(Mid)	SM 2540C-2015	754074		
92649872008	BRA-LR+8(Bottom)	SM 2540C-2015	754074		
92649872009	BRA-LR+9(Surface)	SM 2540C-2015	754074		
92649872010	BRA-LR+9(Mid)	SM 2540C-2015	753832		
92649872011	BRA-LR+9(Bottom)	SM 2540C-2015	753832		
92649872012	BRA-LR+10(Surface)	SM 2540C-2015	753832		
92649872013	BRA-LR+10(Mid)	SM 2540C-2015	753832		
92649872014	BRA-LR+10(Bottom)	SM 2540C-2015	753832		
92649872001	BRA-LR-1(Surface)	SM 2320B-2011	753730		
92649872002	BRA-LR-1(Mid)	SM 2320B-2011	753730		
92649872003	BRA-LR-1(Bottom)	SM 2320B-2011	753730		
92649872004	BRA-LR+8A(Surface)	SM 2320B-2011	753730		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Branch-CCR Ash Pond-Revised Report  
Pace Project No.: 92649872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92649872005	BRA-LR+9A(Surface)	SM 2320B-2011	753730		
92649872006	BRA-LR+8(Surface)	SM 2320B-2011	753730		
92649872007	BRA-LR+8(Mid)	SM 2320B-2011	753730		
92649872008	BRA-LR+8(Bottom)	SM 2320B-2011	753730		
92649872009	BRA-LR+9(Surface)	SM 2320B-2011	753730		
92649872010	BRA-LR+9(Mid)	SM 2320B-2011	753730		
92649872011	BRA-LR+9(Bottom)	SM 2320B-2011	753730		
92649872012	BRA-LR+10(Surface)	SM 2320B-2011	753731		
92649872013	BRA-LR+10(Mid)	SM 2320B-2011	753731		
92649872014	BRA-LR+10(Bottom)	SM 2320B-2011	753731		
92649872001	BRA-LR-1(Surface)	EPA 300.0 Rev 2.1 1993	753382		
92649872002	BRA-LR-1(Mid)	EPA 300.0 Rev 2.1 1993	753382		
92649872003	BRA-LR-1(Bottom)	EPA 300.0 Rev 2.1 1993	753382		
92649872004	BRA-LR+8A(Surface)	EPA 300.0 Rev 2.1 1993	753382		
92649872005	BRA-LR+9A(Surface)	EPA 300.0 Rev 2.1 1993	753382		
92649872006	BRA-LR+8(Surface)	EPA 300.0 Rev 2.1 1993	753382		
92649872007	BRA-LR+8(Mid)	EPA 300.0 Rev 2.1 1993	753382		
92649872008	BRA-LR+8(Bottom)	EPA 300.0 Rev 2.1 1993	753382		
92649872009	BRA-LR+9(Surface)	EPA 300.0 Rev 2.1 1993	753382		
92649872010	BRA-LR+9(Mid)	EPA 300.0 Rev 2.1 1993	753382		
92649872011	BRA-LR+9(Bottom)	EPA 300.0 Rev 2.1 1993	753382		
92649872012	BRA-LR+10(Surface)	EPA 300.0 Rev 2.1 1993	753382		
92649872013	BRA-LR+10(Mid)	EPA 300.0 Rev 2.1 1993	753396		
92649872014	BRA-LR+10(Bottom)	EPA 300.0 Rev 2.1 1993	753396		

### REPORT OF LABORATORY ANALYSIS

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**CHAIN-OF-CUSTODY / Analytical Report**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant information is a legal document.

**MO# : 92649872**  
  
 92649872

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: ARCADIS - Atlanta	Address: 2839 Paces Ferry Rd Atlanta, GA 30339	Report To: Joly Abraham, Allison Keeler, Ben Hodges	Copy To: Warren Johnson	Attention: Joly Abraham	Company Name: GPC
Email: warren.johnson@arcadis.com	Phone: 678.485.5296	Purchase Order #: SCS10392775	Project Name: Plant Branch	Address:	Page Quote:
	Fax:		Requested Due Date: 5 day TAT	Page Project Manager: Mayla Parks@pacelabs.com	Page Profile #: 2239
		Project #:		Regulatory Agency:	State / Location: GA

ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	PRESERVATIVES							Y/N	Requested Analyte Filtered (Y/N)	Residual Chrome (Y/N)	SAMPLE CONDITIONS
					START DATE	END DATE		Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol				
1	LR-1 (surface)	WS	G	G	2/1/2023	1149												
2	LR-1 (mid)	WS	G	G	2/1/2023	1152												
3	LR-1 (bottom)	WS	G	G	2/1/2023	1157												
4	LR-8A (surface)	WS	G	G	2/1/2023	1222												
5	LR-9A (surface)	WS	G	G	2/1/2023	1225												
6	LR-8 (surface)	WS	G	G	2/1/2023	1130												
7	LR-8 (mid)	WS	G	G	2/1/2023	1135												
8	LR-8 (bottom)	WS	G	G	2/1/2023	1138												
9	LR-9 (surface)	WS	G	G	2/1/2023	1117												
10	LR-9 (mid)	WS	G	G	2/1/2023	1120												
11	LR-9 (bottom)	WS	G	G	2/1/2023	1124												
12	LR-10 (surface)	WS	G	G	2/1/2023	1055												

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>ARCADIS</i>	02/01/23	1510	<i>Emilia Parks</i>	2/1/23	1510	

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: *Garrett G*

**ADDITIONAL COMMENTS**  
 CCR App III - Beon, Calcium Chloride, Florida Surface TDS  
 Major Ions<sup>2</sup> Mg, Na, K, total alkalinity, bicarbonate alkalinity

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Report To:</b>		<b>Invoice Information:</b>	
Company: ARCADIS - Atlanta		Report To: Joli Abraham, Ben Hodges		Attention: Joli Abraham	
Address: 2639 Paces Ferry Rd		Copy To: Warren Johnson		Company Name: GPC	
Atlanta, GA 30339		Purchase Order #: SCS10382775		Address:	
Email: warren.johnson@arcadis.com		Project Name: Plant Branch		Pace Quote:	
Phone: 678.485.5298		Project #: 2239		Pace Project Manager: Mayra.Parks@pacsrlabs.com	
Requested Due Date: 5 day TAT		Requested Analysis Filtered (Y/N)		Pace Profile #: 2239	
		Regulatory Agency		GA	
		State / Location			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / . -) Sample IDs must be unique	MATRIX	CODE	COLLECTED			SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	Residual Chlorine (Y/N)									
				START DATE	START TIME	END DATE			END TIME	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3				Methanol	Other	CCR App III <sup>1</sup>	Major Ions <sup>2</sup>	Cobalt				
1	LR-10 (mid)	Drinking Water	DW					Unpreserved																			
2	LR-10 (bottom)	Drinking Water	DW					Unpreserved																			
3		Drinking Water	DW					Unpreserved																			
4		Drinking Water	DW					Unpreserved																			
5		Drinking Water	DW					Unpreserved																			
6		Drinking Water	DW					Unpreserved																			
7		Drinking Water	DW					Unpreserved																			
8		Drinking Water	DW					Unpreserved																			
9		Drinking Water	DW					Unpreserved																			
10		Drinking Water	DW					Unpreserved																			
11		Drinking Water	DW					Unpreserved																			
12		Drinking Water	DW					Unpreserved																			

<b>RELINQUISHED BY / AFFILIATION</b>	<b>DATE</b>	<b>TIME</b>	<b>ACCEPTED BY / AFFILIATION</b>	<b>DATE</b>	<b>TIME</b>
<i>Warren Johnson</i>	2/1/23	1510	<i>Charles Parker</i>	2/1/23	1510
<b>SAMPLER NAME AND SIGNATURE</b>					
<b>PRINT Name of SAMPLER:</b> <i>Charles G. Hill</i>					
<b>DATE:</b> 2-1-23					



DC#\_Title: ENV-FRM-HUN1-0083 v02\_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

*Arcadia's*

Project

WO#: 92649872

Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other:

PM: MP Due Date: 02/09/23  
CLIENT: GA-ArcadAt1

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *MS 2/1/23*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:

IR Gun ID:

*083*

Type of Ice:  Wet  Blue  None

Cooler Temp:

*2.7*

Correction Factor: Add/Subtract (°C)

*± 0.2*

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

*2.9*

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

	Chain of Custody Present?	Samples Arrived within Hold Time?	Short Hold Time Analysis (<72 hr.)?	Rush Turn Around Time Requested?	Sufficient Volume?	Correct Containers Used? -Pace Containers Used?	Containers Intact?	Dissolved analysis: Samples Field Filtered?	Sample Labels Match COC?	Headspace in VOA Vials (>5-6mm)?	Trip Blank Present?	Trip Blank Custody Seals Present?	Comments/Discrepancy:
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1.
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COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCURF Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_ Date: \_\_\_\_\_



DC#\_Title: ENV-FRM-HUN1-0083 v02\_Sample Condition Upon Receipt

Effective Date: 11/14/2022

WO#: 92649872

PM: MP Due Date: 02/09/23  
CLIENT: GA-ArcadAt1

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

\*\*Bottom half of box is to list number of bottles

\*\*\*Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG9A-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1			2																									
2			2																									
3			2																									
4			2																									
5			2																									
6			2																									
7			2																									
8			2																									
9			2																									
10			2																									
11			2																									
12			2																									

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



DC#\_Title: ENV-FRM-HUN1-0083 v02\_Sample Condition Upon Receipt

Effective Date: 11/14/2022

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

2022

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

\*\*Bottom half of box is to list number of bottles

\*\*\*Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1			2																									
2			2																									
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

# March-June 2023



March 28, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 614819

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 17, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 614819 GEL Work Order: 614819

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by





# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 28, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I Project: GPCC00101  
Sample ID: 614819001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 16-MAR-23 10:00  
Receive Date: 17-MAR-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.92			SU			EOS1	03/16/23	1000	2400285	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		274	2.66	8.00	mg/L		20	HXC1	03/20/23	1603	2400698	2
Chloride		5.71	0.0670	0.200	mg/L		1	HXC1	03/19/23	0704	2400698	3
Fluoride		0.209	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/22/23	1059	2401401	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.36	0.0520	0.150	mg/L	1.00	10	BAJ	03/22/23	1202	2400580	5
Calcium		64.8	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	03/22/23	0428	2400580	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0210	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00425	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00362	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.148	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		444	2.38	10.0	mg/L			CH6	03/20/23	1350	2400767	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/21/23	1135	2401400
SW846 3005A	ICP-MS 3005A PREP	JD2	03/20/23	0805	2400579

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 28, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

---

Client Sample ID: BRA-PZ-69I      Project: GPCC00101  
Sample ID: 614819001      Client ID: GPCC001

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	SM 4500-H B/SW846 9040C, SM 2550B											
2	EPA 300.0											
3	EPA 300.0											
4	SW846 7470A											
5	SW846 3005A/6020B											
6	SW846 3005A/6020B											
7	SM 2540C											

### Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## QC Summary

Report Date: March 28, 2023

Page 1 of 8

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 614819

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2400698										
QC1205349973	614814001	DUP									
Chloride		4.18		4.16	mg/L	0.523		(0%-20%)	HXC1	03/18/23	23:22
Fluoride		0.208		0.212	mg/L	1.71	^	(+/-0.100)			
Sulfate		81.8		81.6	mg/L	0.232		(0%-20%)		03/20/23	13:28
QC1205349975	614819001	DUP									
Chloride		5.71		5.74	mg/L	0.484		(0%-20%)		03/19/23	07:35
Fluoride		0.209		0.219	mg/L	4.68	^	(+/-0.100)			
Sulfate		274		276	mg/L	0.873		(0%-20%)		03/20/23	16:34
QC1205349972	LCS										
Chloride	5.00			4.85	mg/L			96.9 (90%-110%)		03/18/23	22:20
Fluoride	2.50			2.50	mg/L			100 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205349971	MB										
Chloride			U	ND	mg/L					03/18/23	21:49
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205349974	614814001	PS									
Chloride	5.00	4.18		9.77	mg/L			112* (90%-110%)		03/18/23	23:52

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## QC Summary

Workorder: 614819

Page 2 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2400698										
Fluoride	2.50	0.208		2.74	mg/L		101	(90%-110%)	HXC1	03/18/23	23:52
Sulfate	10.0	16.4		27.4	mg/L		110	(90%-110%)		03/20/23	13:59
QC1205349976	614819001 PS										
Chloride	5.00	5.71		11.5	mg/L		116*	(90%-110%)		03/19/23	08:06
Fluoride	2.50	0.209		2.72	mg/L		101	(90%-110%)			
Sulfate	10.0	13.7		24.7	mg/L		110	(90%-110%)		03/20/23	17:04
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
QC1205349725	LCS										
Antimony	0.0500			0.0499	mg/L		99.7	(80%-120%)	BAJ	03/22/23	03:12
Arsenic	0.0500			0.0495	mg/L		99	(80%-120%)			
Barium	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Beryllium	0.0500			0.0551	mg/L		110	(80%-120%)			
Boron	0.100			0.108	mg/L		108	(80%-120%)		03/22/23	11:23
Cadmium	0.0500			0.0509	mg/L		102	(80%-120%)		03/22/23	03:12
Calcium	2.00			2.16	mg/L		108	(80%-120%)			
Chromium	0.0500			0.0518	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0492	mg/L		98.4	(80%-120%)			

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## *QC Summary*

Workorder: 614819

Page 3 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Lead	0.0500			0.0503	mg/L		101	(80%-120%)	BAJ	03/22/23	03:12
Lithium	0.0500			0.0525	mg/L		105	(80%-120%)			
Molybdenum	0.0500			0.0522	mg/L		104	(80%-120%)			
Selenium	0.0500			0.0495	mg/L		98.9	(80%-120%)			
Thallium	0.0500			0.0483	mg/L		96.6	(80%-120%)			
QC1205349724	MB										
Antimony			U	ND	mg/L					03/22/23	03:08
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					03/22/23	11:22
Cadmium			U	ND	mg/L					03/22/23	03:08
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 614819

Page 4 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Lithium			U	ND	mg/L				BAJ	03/22/23	03:08
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205349726 614814001 MS											
Antimony	0.0500	U	ND	0.0483	mg/L		96.2	(75%-125%)		03/22/23	03:19
Arsenic	0.0500	U	ND	0.0481	mg/L		94.9	(75%-125%)			
Barium	0.0500		0.0179	0.0665	mg/L		97.1	(75%-125%)			
Beryllium	0.0500	U	ND	0.0525	mg/L		105	(75%-125%)			
Boron	0.100		0.421	0.521	mg/L		N/A	(75%-125%)		03/22/23	11:53
Cadmium	0.0500	U	ND	0.0487	mg/L		97.3	(75%-125%)		03/22/23	03:19
Calcium	2.00		26.2	28.2	mg/L		N/A	(75%-125%)			
Chromium	0.0500	J	0.00415	0.0527	mg/L		97	(75%-125%)			
Cobalt	0.0500		0.00108	0.0481	mg/L		94	(75%-125%)			
Lead	0.0500	U	ND	0.0484	mg/L		96.5	(75%-125%)			
Lithium	0.0500	U	ND	0.0529	mg/L		100	(75%-125%)			

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## QC Summary

Workorder: 614819

Page 5 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Molybdenum	0.0500	J	0.000235	0.0504	mg/L		100	(75%-125%)	BAJ	03/22/23	03:19
Selenium	0.0500	U	ND	0.0470	mg/L		92.8	(75%-125%)			
Thallium	0.0500	U	ND	0.0470	mg/L		93.9	(75%-125%)			
QC1205349727	614814001 MSD										
Antimony	0.0500	U	ND	0.0497	mg/L	2.84	99	(0%-20%)		03/22/23	03:23
Arsenic	0.0500	U	ND	0.0484	mg/L	0.588	95.4	(0%-20%)			
Barium	0.0500		0.0179	0.0669	mg/L	0.675	98	(0%-20%)			
Beryllium	0.0500	U	ND	0.0525	mg/L	0.107	105	(0%-20%)			
Boron	0.100		0.421	0.550	mg/L	5.31	N/A	(0%-20%)		03/22/23	11:55
Cadmium	0.0500	U	ND	0.0505	mg/L	3.67	101	(0%-20%)		03/22/23	03:23
Calcium	2.00		26.2	28.0	mg/L	0.925	N/A	(0%-20%)			
Chromium	0.0500	J	0.00415	0.0519	mg/L	1.43	95.5	(0%-20%)			
Cobalt	0.0500		0.00108	0.0483	mg/L	0.417	94.4	(0%-20%)			
Lead	0.0500	U	ND	0.0495	mg/L	2.31	98.8	(0%-20%)			
Lithium	0.0500	U	ND	0.0535	mg/L	1.07	102	(0%-20%)			
Molybdenum	0.0500	J	0.000235	0.0527	mg/L	4.47	105	(0%-20%)			

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## QC Summary

Workorder: 614819

Page 6 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Selenium	0.0500	U	ND	0.0483	mg/L	2.71	95.4	(0%-20%)	BAJ	03/22/23	03:23
Thallium	0.0500	U	ND	0.0476	mg/L	1.32	95.2	(0%-20%)			
QC1205349728	614814001	SDILT									
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/22/23	03:30
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			17.9	J	3.66	ug/L	2.08	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			84.2		24.1	ug/L	43.2	(0%-20%)		03/22/23	11:58
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/22/23	03:30
Calcium			26200		5390	ug/L	2.93	(0%-20%)			
Chromium		J	4.15	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			1.08	U	ND	ug/L	N/A	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lithium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Molybdenum		J	0.235	U	ND	ug/L	N/A	(0%-20%)			
Selenium		U	ND	U	ND	ug/L	N/A	(0%-20%)			



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 614819

Page 7 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	03/22/23	03:30
<b>Metals Analysis-Mercury</b>											
Batch	2401401										
QC1205351499	614827014	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	03/22/23	11:05
QC1205351498	LCS										
Mercury	0.00200			0.00201	mg/L		100	(80%-120%)		03/22/23	10:34
QC1205351497	MB										
Mercury			U	ND	mg/L					03/22/23	10:33
QC1205351500	614827014	MS									
Mercury	0.00200	U	ND	0.00199	mg/L		99.4	(75%-125%)		03/22/23	11:10
QC1205351501	614827014	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		03/22/23	11:12
<b>Solids Analysis</b>											
Batch	2400767										
QC1205350114	614485002	DUP									
Total Dissolved Solids			265	268	mg/L	1.13		(0%-5%)	CH6	03/20/23	13:50
QC1205350113	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		03/20/23	13:50
QC1205350112	MB										
Total Dissolved Solids			U	ND	mg/L					03/20/23	13:50

**Notes:**

The Qualifiers in this report are defined as follows:

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## *QC Summary*

Workorder: 614819

Page 8 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time	
J												Value is estimated
X												Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
N												Metals--The Matrix spike sample recovery is not within specified control limits
H												Analytical holding time was exceeded
<												Result is less than value reported
>												Result is greater than value reported
h												Preparation or preservation holding time was exceeded
R												Sample results are rejected
Z												Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
d												5-day BOD--The 2:1 depletion requirement was not met for this sample
^												RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A												RPD or %Recovery limits do not apply.
ND												Analyte concentration is not detected above the detection limit
E												%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
NJ												Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
E												General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
Q												One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
FB												Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
N1												See case narrative
Y												Other specific qualifiers were required to properly define the results. Consult case narrative.
R												Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
B												The target analyte was detected in the associated blank.
e												5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
J												See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 614819**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2400580

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2400579

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205349724	Method Blank (MB)ICP-MS
1205349725	Laboratory Control Sample (LCS)
1205349728	614814001(BRA-BRLFC-01L) Serial Dilution (SD)
1205349726	614814001(BRA-BRLFC-01S) Matrix Spike (MS)
1205349727	614814001(BRA-BRLFC-01SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 614819001 (BRA-PZ-69I) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	614819
	001
Boron	10X
Calcium	10X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2401401

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2401400

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205351497	Method Blank (MB)CVAA
1205351498	Laboratory Control Sample (LCS)
1205351501	614827014(NonSDGL) Serial Dilution (SD)
1205351499	614827014(NonSDGD) Sample Duplicate (DUP)
1205351500	614827014(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2400698

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205349971	Method Blank (MB)
1205349972	Laboratory Control Sample (LCS)
1205349973	614814001(BRA-BRLFC-01) Sample Duplicate (DUP)
1205349974	614814001(BRA-BRLFC-01) Post Spike (PS)
1205349975	614819001(BRA-PZ-69I) Sample Duplicate (DUP)
1205349976	614819001(BRA-PZ-69I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205349974 (BRA-BRLFC-01PS)	112* (90%-110%)
	1205349976 (BRA-PZ-69IPS)	116* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205349973 (BRA-BRLFC-01DUP), 1205349974 (BRA-BRLFC-01PS), 1205349975 (BRA-PZ-69IDUP), 1205349976 (BRA-PZ-69IPS) and 614819001 (BRA-PZ-69I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>614819</b>
	<b>001</b>
Sulfate	20X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2400767

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205350112	Method Blank (MB)
1205350113	Laboratory Control Sample (LCS)
1205350114	614485002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Sample ID: BRA-PZ-691  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	OC Code (2)	Field Filtered (3)	Sample Matrix (4)
BRA-PZ-691	03/16/23	1000	G	N	WG

Send Results To: SCS & Geosyntec Contacts

Should this sample be considered: (7) Known or possible Hazards (if yes, please supply isotopic info.)

Total number of containers: 6

EPA 300, SM 2540C	<input checked="" type="checkbox"/>
App III/IV Metals*	<input checked="" type="checkbox"/>
EPA 6020, 6010, 7470	<input checked="" type="checkbox"/>
Radium 226 & 228 SW-816 9315, 9320	<input checked="" type="checkbox"/>

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Preservative Type (6) <--

Comments: Note: extra sample is required for sample specific QC  
 Task Code: BRA-CCR-ASSMT-2023SIRI  
 field pH = 5.92

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
John 3-17-23 0802

Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
MATTA 3-17-2023 0800

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 0 °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

**Chain of Custody Signatures**

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7) KNOWN OR POSSIBLE HAZARDS

Characteristic Hazards	Listed Waste	Other
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____
TSCA Regulated PCB = Polychlorinated biphenyls		

RCRA Metals: \_\_\_\_\_  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead



**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GEL</u>		SDG/AR/COC/Work Order: <u>614819 / 614823</u>	
Received By: <u>MVH</u>		Date Received: <u>3.17.2023</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other	
		<u>COOL1-1 COOL2-1 COOL3-0 COOL4-0</u>	
<b>Suspected Hazard Information</b>		Yes	No
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>00</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
<b>Sample Receipt Criteria</b>		Yes	NA
<b>Comments/Qualifiers (Required for Non-Conforming Items)</b>		No	
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: _____</span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
			Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
			Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials MG Date 3/20/23 Page 1 of 1



**List of current GEL Certifications as of 28 March 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



April 13, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 616295

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 30, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Sample was preserved upon arrival..

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 616295 GEL Work Order: 616295

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_

*Anna Johnson*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 13, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-18S	Project: GPCC00101
Sample ID: 616295001	Client ID: GPCC001
Matrix: WG	
Collect Date: 29-MAR-23 15:35	
Receive Date: 30-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.36			SU			MG5	03/29/23	1535	2406852	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			MG5	03/29/23	1535	2406852	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		265	3.33	10.0	mg/L		25	LXA2	03/31/23	0535	2406403	3
Chloride		5.35	0.0670	0.200	mg/L		1	LXA2	03/30/23	1816	2406403	4
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N		0.114	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.832	0.104	0.300	mg/L	1.00	20	BAJ	04/03/23	1325	2406507	5
Calcium		53.7	1.60	4.00	mg/L	1.00	20	BAJ	04/06/23	1349	2406507	6
Magnesium		36.9	0.0100	0.0300	mg/L	1.00	1	SKJ	04/12/23	0931	2410792	7
Iron	J	0.0387	0.0330	0.100	mg/L	1.00	1	BAJ	04/02/23	2318	2406507	8
Manganese		0.0674	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.92	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		23.6	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		419	2.38	10.0	mg/L			CH6	03/31/23	1115	2406625	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	04/04/23	1624	2406779	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		22.0	1.45	4.00	mg/L			HH2	04/06/23	1510	2409871	11
Bicarbonate alkalinity (CaCO3)		22.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 13, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-18S Project: GPCC00101  
Sample ID: 616295001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS	3005A PREP		EM2	04/10/23		1610		2410791		
SW846 3005A	ICP-MS	3005A PREP		JD2	03/31/23		0710		2406504		

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 13, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-19S	Project: GPCC00101
Sample ID: 616295002	Client ID: GPCC001
Matrix: WG	
Collect Date: 29-MAR-23 16:45	
Receive Date: 30-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.54			SU			MG5	03/29/23	1645	2406852	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			MG5	03/29/23	1645	2406852	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.97	0.0670	0.200	mg/L		1	LXA2	03/30/23	1847	2406403	3
Fluoride	J	0.0549	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0665	0.0330	0.100	mg/L		1					
Sulfate		231	2.66	8.00	mg/L		20	LXA2	03/31/23	0606	2406403	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		29.7	0.0100	0.0300	mg/L	1.00	1	SKJ	04/12/23	0938	2410792	5
Calcium		46.0	0.0800	0.200	mg/L	1.00	1	BAJ	04/06/23	1356	2406507	6
Boron		1.37	0.104	0.300	mg/L	1.00	20	BAJ	04/03/23	1332	2406507	7
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	BAJ	04/02/23	2337	2406507	8
Manganese		0.451	0.00100	0.00500	mg/L	1.00	1					
Potassium		3.61	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		26.9	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		371	2.38	10.0	mg/L			CH6	03/31/23	1115	2406625	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	04/05/23	1557	2408818	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		24.8	1.45	4.00	mg/L			HH2	04/06/23	1511	2409871	11
Bicarbonate alkalinity (CaCO3)		24.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: April 13, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-19S Project: GPCC00101  
Sample ID: 616295002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS	3005A PREP		EM2	04/10/23		1610		2410791		
SW846 3005A	ICP-MS	3005A PREP		JD2	03/31/23		0710		2406504		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		
10	SM 4500-S (2-) D		
11	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: April 13, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 616295

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2406403										
QC1205361373	616235001	DUP									
Chloride		1.74		1.75	mg/L	0.378		(0%-20%)	LXA2	03/31/23	04:33
Fluoride		0.267		0.267	mg/L	0.0375	^	(+/-0.100)			
Nitrate-N		0.331		0.334	mg/L	0.632	^	(+/-0.100)			
Sulfate		1.86		1.86	mg/L	0.279	^	(+/-0.400)			
QC1205361372	LCS										
Chloride	5.00			4.56	mg/L			91.3 (90%-110%)		03/31/23	04:02
Fluoride	2.50			2.31	mg/L			92.3 (90%-110%)			
Nitrate-N	2.50			2.33	mg/L			93 (90%-110%)			
Sulfate	10.0			9.41	mg/L			94.1 (90%-110%)			
QC1205361371	MB										
Chloride			U	ND	mg/L					03/31/23	02:30
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205361374	616235001	PS									
Chloride	5.00	1.74		6.92	mg/L			104 (90%-110%)		03/31/23	05:04



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## QC Summary

Workorder: 616295

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2406403										
Fluoride	2.50	0.267		2.70	mg/L		97.3	(90%-110%)	LXA2	03/31/23	05:04
Nitrate-N	2.50	0.331		2.83	mg/L		100	(90%-110%)			
Sulfate	10.0	1.86		12.1	mg/L		102	(90%-110%)			
<b>Metals Analysis - ICPMS</b>											
Batch	2406507										
QC1205361519	LCS										
Boron	0.100			0.107	mg/L		107	(80%-120%)	BAJ	04/03/23	13:23
Calcium	2.00			2.10	mg/L		105	(80%-120%)		04/06/23	13:47
Iron	2.00			2.02	mg/L		101	(80%-120%)		04/02/23	23:14
Manganese	0.0500			0.0509	mg/L		102	(80%-120%)			
Potassium	2.00			2.04	mg/L		102	(80%-120%)			
Selenium	0.0500			0.0495	mg/L		99	(80%-120%)			
Sodium	2.00			2.21	mg/L		110	(80%-120%)			
QC1205361518	MB										
Boron			U	ND	mg/L					04/03/23	13:21
Calcium			U	ND	mg/L					04/06/23	13:45
Iron			U	ND	mg/L					04/02/23	23:11
Manganese			U	ND	mg/L						

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 616295

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2406507										
Potassium			U	ND	mg/L				BAJ	04/02/23	23:11
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205361520 616295001 MS											
Boron	0.100	0.832		0.933	mg/L		N/A	(75%-125%)		04/03/23	13:27
Calcium	2.00	53.7		55.7	mg/L		N/A	(75%-125%)		04/06/23	13:50
Iron	2.00	J 0.0387		2.07	mg/L		102	(75%-125%)		04/02/23	23:22
Manganese	0.0500	0.0674		0.118	mg/L		101	(75%-125%)			
Potassium	2.00	2.92		5.01	mg/L		104	(75%-125%)			
Selenium	0.0500	U ND		0.0512	mg/L		102	(75%-125%)			
Sodium	2.00	23.6		25.7	mg/L		N/A	(75%-125%)			
QC1205361521 616295001 MSD											
Boron	0.100	0.832		0.893	mg/L	4.38	N/A	(0%-20%)		04/03/23	13:28
Calcium	2.00	53.7		53.0	mg/L	5.06	N/A	(0%-20%)		04/06/23	13:52
Iron	2.00	J 0.0387		2.13	mg/L	2.9	105	(0%-20%)		04/02/23	23:26
Manganese	0.0500	0.0674		0.122	mg/L	3.21	109	(0%-20%)			
Potassium	2.00	2.92		5.00	mg/L	0.173	104	(0%-20%)			

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## QC Summary

Workorder: 616295

Page 4 of 7

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2406507										
Selenium	0.0500	U	ND	0.0520	mg/L	1.52	103	(0%-20%)	BAJ	04/02/23	23:26
Sodium	2.00		23.6	26.0	mg/L	0.892	N/A	(0%-20%)			
QC1205361522	616295001 SDILT										
Boron			41.6	J	8.75	ug/L	5.1	(0%-20%)		04/03/23	13:30
Calcium			2690		590	ug/L	9.77	(0%-20%)		04/06/23	13:54
Iron		J	38.7	U	ND	ug/L	N/A	(0%-20%)		04/02/23	23:33
Manganese			67.4		13.5	ug/L	.0563	(0%-20%)			
Potassium			2920		568	ug/L	2.81	(0%-20%)			
Selenium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Sodium			23600		4630	ug/L	1.95	(0%-20%)			
Batch	2410792										
QC1205369747	LCS										
Magnesium	2.00				1.81	mg/L	90.4	(80%-120%)	SKJ	04/12/23	09:29
QC1205369746	MB										
Magnesium				U	ND	mg/L				04/12/23	09:27
QC1205369748	616295002 MS										
Magnesium	2.00		29.7		31.5	mg/L	N/A	(75%-125%)		04/12/23	09:40
QC1205369749	616295002 MSD										
Magnesium	2.00		29.7		31.4	mg/L	0.0613	N/A		04/12/23	09:42

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## QC Summary

Workorder: 616295

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2410792										
QC1205369750	616295002	SDILT									
Magnesium		29700		6020	ug/L	1.5		(0%-20%)	SKJ	04/12/23	09:46
<b>Solids Analysis</b>											
Batch	2406625										
QC1205361698	616235001	DUP									
Total Dissolved Solids		101		101	mg/L	0		(0%-5%)	CH6	03/31/23	11:15
QC1205361697	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		03/31/23	11:15
QC1205361696	MB										
Total Dissolved Solids			U	ND	mg/L					03/31/23	11:15
<b>Spectrometric Analysis</b>											
Batch	2406779										
QC1205361979	LCS										
Total Sulfide	0.400			0.404	mg/L		101	(85%-115%)	HH2	04/04/23	16:24
QC1205361978	MB										
Total Sulfide			U	ND	mg/L					04/04/23	16:24
QC1205361982	616209011	PS									
Total Sulfide	0.400	U	ND	0.419	mg/L		103	(75%-125%)		04/04/23	16:24
QC1205361983	616209011	PSD									
Total Sulfide	0.400	U	ND	0.411	mg/L	1.91	101	(0%-15%)		04/04/23	16:24
Batch	2408818										
QC1205366174	LCS										
Total Sulfide	0.400			0.397	mg/L		99.3	(85%-115%)	HH2	04/05/23	15:57
QC1205366173	MB										
Total Sulfide			U	ND	mg/L					04/05/23	15:57

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## QC Summary

Workorder: 616295

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch	2408818										
QC1205366177	616948001	PS									
Total Sulfide	0.400	U	ND	0.330	mg/L		79.5	(75%-125%)	HH2	04/05/23	15:57
QC1205366178	616948001	PSD									
Total Sulfide	0.400	U	ND	0.329	mg/L	0.396	79.2	(0%-15%)		04/05/23	15:57
<b>Titration and Ion Analysis</b>											
Batch	2409871										
QC1205368078	616431001	DUP									
Bicarbonate alkalinity (CaCO3)			163	163	mg/L	0.122		(0%-20%)	HH2	04/06/23	15:15
QC1205368077	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		04/06/23	15:09
QC1205368079	616431001	MS									
Alkalinity, Total as CaCO3	100		163	266	mg/L		103	(80%-120%)		04/06/23	15:17

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 616295

Page 7 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 616295**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2406507

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2406504

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
1205361518	Method Blank (MB)ICP-MS
1205361519	Laboratory Control Sample (LCS)
1205361522	616295001(BRA-PZ-18SL) Serial Dilution (SD)
1205361520	616295001(BRA-PZ-18SS) Matrix Spike (MS)
1205361521	616295001(BRA-PZ-18SSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	616295	
	001	002
Boron	20X	20X

Calcium	20X	1X
---------	-----	----

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2410792

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2410791

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
1205369746	Method Blank (MB)ICP-MS
1205369747	Laboratory Control Sample (LCS)
1205369750	616295002(BRA-PZ-19SL) Serial Dilution (SD)
1205369748	616295002(BRA-PZ-19SS) Matrix Spike (MS)
1205369749	616295002(BRA-PZ-19SSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

#### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

#### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

## **General Chemistry**

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2406403

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
1205361371	Method Blank (MB)



1205361372	Laboratory Control Sample (LCS)
1205361373	616235001(NonSDG) Sample Duplicate (DUP)
1205361374	616235001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 616295001 (BRA-PZ-18S) and 616295002 (BRA-PZ-19S) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	616295	
	001	002
Sulfate	25X	20X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2406625

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
1205361696	Method Blank (MB)
1205361697	Laboratory Control Sample (LCS)
1205361698	616235001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2406779

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
616295001	BRA-PZ-18S
1205361978	Method Blank (MB)
1205361979	Laboratory Control Sample (LCS)
1205361982	616209011(NonSDG) Post Spike (PS)
1205361983	616209011(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2408818

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
616295002	BRA-PZ-19S
1205366173	Method Blank (MB)
1205366174	Laboratory Control Sample (LCS)
1205366177	616948001(NonSDG) Post Spike (PS)
1205366178	616948001(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2409871

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
1205368077	Laboratory Control Sample (LCS)
1205368078	616431001(NonSDG) Sample Duplicate (DUP)
1205368079	616431001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: \_\_\_\_\_  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308  
 Collected By: A Schwab ACC

Sample ID	Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm) (hhmm))	QC Code (2)	Field Filtered (3)	Sample Matrix (4)
BRA-PZ-185	03/29/23	1535	G	N	WG
BRA-PZ-195	03/29/23	1645	6	N	WG

Send Results To: SCS & Geosyntec Contacts  
 \*For composites - Indicate start and stop date/time

Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)
Radiative (if yes, please supply isotopic info) (7) Known or possible Hazards	Total number of containers EPA 300, SM 2540C Total, Carb, & Breatb Air SM 220B Metals * EPA 6020 SM 4500	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C Total, Carb, & Breatb Air SM 220B Metals * EPA 6020 SM 4500	<-- Preservative Type (6)

Comments  
 Note: extra sample is required for sample specific QC  
 Task\_Code: BRA-CCR-ASSMPT-2023STRZ  
 OTH-20230329  
 field pH = 5.36  
 field ferrous iron = 0.0  
 field pH = 5.54  
 field ferrous iron = 0.0

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B,Ca,Se,Fe,Mg,Mn,K,Na  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp. \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Other  
 OT= Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:

Chain of Custody Signatures  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 1. \_\_\_\_\_ 03/30/23 1240  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)  
 Chain of Custody Number = Client Determined

1.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WY=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals  
 As = Arsenic Hg= Mercury  
 Ba = Barium Se= Selenium  
 Cd = Cadmium Ag= Silver  
 Cr = Chromium MR= Misc. RCRA metals  
 Pb = Lead

Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls

Listed Waste  
 LW= Listed Waste  
 (F,K,P and U-listed wastes.)  
 Waste code(s):

Other  
 OT= Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:



**GEL** Laboratories LLC

**SAMPLE RECEIPT & REVIEW FORM ET**

Client: <u>GCPP</u>		SDG/AR/COC/Work Order: <u>6116295</u>	
Received By: <u>MVH</u>		Date Received: <u>03-30-2023</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other	
<b>Suspected Hazard Information</b>		Yes	No
A) Shipped as a DOT Hazardous?			<input checked="" type="checkbox"/>
B) Did the client designate the samples are to be received as radioactive?			<input checked="" type="checkbox"/>
C) Did the RSO classify the samples as radioactive?			<input checked="" type="checkbox"/>
D) Did the client designate samples are hazardous?			<input checked="" type="checkbox"/>
E) Did the RSO identify possible hazards?			<input checked="" type="checkbox"/>
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
Hazard Class Shipped: _____ UN#: _____		If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
COC notation or radioactive stickers on containers equal client designation.			
Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>CPM</u> mR/Hr		Classified as: Rad 1   Rad 2   Rad 3	
COC notation or hazard labels on containers equal client designation.			
If D or E is yes, select Hazards below.		PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:	
<b>Sample Receipt Criteria</b>		Yes	NA
<b>Comments/Qualifiers (Required for Non-Conforming Items)</b>			
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	
6	Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>
7	Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>
8	Samples received within holding time?	<input checked="" type="checkbox"/>	
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials MG Date 3/31/23 Page 1 of 1

## Max Gloth

---

**From:** Anna Johnson  
**Sent:** Thursday, March 30, 2023 4:47 PM  
**To:** Abraham, Joju; Jurinko, Kristen Nichole; Smilley, Michael Jay  
**Cc:** Team Trent  
**Subject:** RE: Sample not holding preservative (616295)

Thank you !

---

**From:** Abraham, Joju <JABRAHAM@SOUTHERNCO.COM>  
**Sent:** Thursday, March 30, 2023 4:20 PM  
**To:** Anna Johnson <Anna.Johnson@gel.com>; Jurinko, Kristen Nichole <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>  
**Cc:** Team Trent <Team.Trent@gel.com>  
**Subject:** RE: Sample not holding preservative (616295)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Preserve and proceed with analysis. Thanks for checking.

Joju

---

**From:** Anna Johnson <[Anna.Johnson@gel.com](mailto:Anna.Johnson@gel.com)>  
**Sent:** Thursday, March 30, 2023 4:12 PM  
**To:** Abraham, Joju <[JABRAHAM@SOUTHERNCO.COM](mailto:JABRAHAM@SOUTHERNCO.COM)>; Jurinko, Kristen Nichole <[KNJURINK@SOUTHERNCO.COM](mailto:KNJURINK@SOUTHERNCO.COM)>; Smilley, Michael Jay <[MJSMILLE@SOUTHERNCO.COM](mailto:MJSMILLE@SOUTHERNCO.COM)>  
**Cc:** Team Trent <[Team.Trent@gel.com](mailto:Team.Trent@gel.com)>  
**Subject:** Sample not holding preservative (616295)

EXTERNAL MAIL: Caution Opening Links or Files

---

Hello,  
the sulfide sample received today did not hold preservation upon arrival. Please advise if we should preserve and proceed with analysis.  
see attachment for reference,  
Thanks!

**Anna Johnson**  
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417  
Office Main: 843.556.8171 | Fax: 843.766.1178  
E-Mail: [anna.johnson@gel.com](mailto:anna.johnson@gel.com) | Website: [www.gel.com](http://www.gel.com) [[gel.com](http://gel.com)]

## Analytical Testing



[\[gellaboratories.com\]](http://gellaboratories.com)



[\[linkedin.com\]](http://linkedin.com)

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**List of current GEL Certifications as of 13 April 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780





May 26, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 621821

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 12, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Please see attached email regarding a change in Sample ID. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 621821 GEL Work Order: 621821

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-71I Project: GPCC00101  
Sample ID: 621821001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 11-MAY-23 08:15  
Receive Date: 12-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.41			SU			EOS1	05/11/23	0815	2428140	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	05/11/23	0815	2428140	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.08	0.0670	0.200	mg/L		1	JLD1	05/12/23	1051	2428256	3
Fluoride		0.175	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		262	6.65	20.0	mg/L		50	JLD1	05/12/23	2023	2428256	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	05/15/23	1047	2428104	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.10	0.104	0.300	mg/L	1.00	20	PRB	05/13/23	1517	2428157	6
Calcium		64.3	1.60	4.00	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	05/12/23	2257	2428157	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0921	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00285	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0557	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000526	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		27.7	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.424	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000948	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.07	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0539	0.00150	0.00500	mg/L	1.00	1					
Sodium		27.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-711 Project: GPCC00101  
Sample ID: 621821001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		446	2.38	10.0	mg/L			CH6	05/16/23	1417	2428760	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	05/15/23	1133	2427582	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		53.4	0.725	2.00	mg/L			MS3	05/25/23	1910	2435075	10
Bicarbonate alkalinity (CaCO3)		53.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	05/12/23	1220	2428103
SW846 3005A	ICP-MS 3005A PREP	JD2	05/12/23	0850	2428156

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-711  
Sample ID: 621821001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: May 26, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
 241 Ralph McGill Blvd NE, Bin 10160  
 Atlanta, Georgia

Contact: Joju Abraham

Workorder: 621821

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2428256										
QC1205403295	621606008	DUP									
Chloride		4.82		4.84	mg/L	0.335		(0%-20%)	JLD1	05/12/23	19:19
Fluoride	J	0.0503	J	0.0497	mg/L	1.2	^	(+/-0.100)			
Nitrate-N		15.9		15.9	mg/L	0.0378		(0%-20%)		05/15/23	18:16
Sulfate		2.96		2.90	mg/L	2.24		(0%-20%)		05/12/23	19:19
QC1205403294	LCS										
Chloride	5.00			4.79	mg/L			95.7 (90%-110%)		05/12/23	18:47
Fluoride	2.50			2.55	mg/L			102 (90%-110%)			
Nitrate-N	2.50			2.40	mg/L			96.1 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205403293	MB										
Chloride			U	ND	mg/L					05/12/23	18:15
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205403296	621606008	PS									
Chloride	5.00	4.82		10.2	mg/L			108 (90%-110%)		05/12/23	19:51

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 621821

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2428256										
Fluoride	2.50	J	0.0503	2.62	mg/L		103	(90%-110%)	JLD1	05/12/23	19:51
Nitrate-N	2.50		1.59	4.20	mg/L		104	(90%-110%)		05/15/23	18:48
Sulfate	10.0		2.96	13.2	mg/L		102	(90%-110%)		05/12/23	19:51
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
QC1205403058	LCS										
Antimony	0.0500			0.0496	mg/L		99.2	(80%-120%)	PRB	05/12/23	22:53
Arsenic	0.0500			0.0485	mg/L		97	(80%-120%)			
Barium	0.0500			0.0532	mg/L		106	(80%-120%)			
Beryllium	0.0500			0.0532	mg/L		106	(80%-120%)			
Boron	0.100			0.101	mg/L		101	(80%-120%)		05/13/23	15:15
Cadmium	0.0500			0.0501	mg/L		100	(80%-120%)		05/12/23	22:53
Calcium	2.00			2.09	mg/L		104	(80%-120%)		05/13/23	15:15
Chromium	0.0500			0.0479	mg/L		95.9	(80%-120%)		05/12/23	22:53
Cobalt	0.0500			0.0489	mg/L		97.8	(80%-120%)			
Iron	2.00			1.98	mg/L		99.2	(80%-120%)			
Lead	0.0500			0.0486	mg/L		97.3	(80%-120%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 621821

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Lithium	0.0500			0.0503	mg/L		101	(80%-120%)	PRB	05/12/23	22:53
Magnesium	2.00			2.03	mg/L		102	(80%-120%)			
Manganese	0.0500			0.0490	mg/L		98	(80%-120%)			
Molybdenum	0.0500			0.0515	mg/L		103	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Selenium	0.0500			0.0491	mg/L		98.2	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0473	mg/L		94.7	(80%-120%)			
QC1205403057	MB										
Antimony			U	ND	mg/L					05/12/23	22:49
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					05/13/23	15:13
Cadmium			U	ND	mg/L					05/12/23	22:49
Calcium			U	ND	mg/L					05/13/23	15:13



# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 621821

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Chromium			U	ND	mg/L				PRB	05/12/23	22:49
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205403059 621821001 MS											
Antimony	0.0500	U	ND	0.0523	mg/L		104	(75%-125%)		05/12/23	23:00
Arsenic	0.0500	U	ND	0.0505	mg/L		99.2	(75%-125%)			
Barium	0.0500		0.0921	0.147	mg/L		110	(75%-125%)			

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## QC Summary

Workorder: 621821

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Beryllium	0.0500	U	ND	0.0568	mg/L		114	(75%-125%)	PRB	05/12/23	23:00
Boron	0.100		1.10	1.24	mg/L		N/A	(75%-125%)		05/13/23	15:19
Cadmium	0.0500	U	ND	0.0523	mg/L		105	(75%-125%)		05/12/23	23:00
Calcium	2.00		64.3	67.3	mg/L		N/A	(75%-125%)		05/13/23	15:19
Chromium	0.0500	U	ND	0.0505	mg/L		100	(75%-125%)		05/12/23	23:00
Cobalt	0.0500		0.00285	0.0530	mg/L		100	(75%-125%)			
Iron	2.00	J	0.0557	2.09	mg/L		102	(75%-125%)			
Lead	0.0500	J	0.000526	0.0497	mg/L		98.3	(75%-125%)			
Lithium	0.0500	U	ND	0.0552	mg/L		108	(75%-125%)			
Magnesium	2.00		27.7	30.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500		0.424	0.482	mg/L		N/A	(75%-125%)			
Molybdenum	0.0500	J	0.000948	0.0562	mg/L		111	(75%-125%)			
Potassium	2.00		8.07	10.2	mg/L		N/A	(75%-125%)			
Selenium	0.0500		0.0539	0.103	mg/L		97.9	(75%-125%)			
Sodium	2.00		27.1	30.1	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 621821

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Thallium	0.0500	U	ND	0.0487	mg/L		97.3	(75%-125%)	PRB	05/12/23	23:00
QC1205403060	621821001 MSD										
Antimony	0.0500	U	ND	0.0532	mg/L	1.78	106	(0%-20%)		05/12/23	23:04
Arsenic	0.0500	U	ND	0.0519	mg/L	2.73	102	(0%-20%)			
Barium	0.0500		0.0921	0.147	mg/L	0.305	110	(0%-20%)			
Beryllium	0.0500	U	ND	0.0583	mg/L	2.61	117	(0%-20%)			
Boron	0.100		1.10	1.21	mg/L	2.36	N/A	(0%-20%)		05/13/23	15:21
Cadmium	0.0500	U	ND	0.0524	mg/L	0.134	105	(0%-20%)		05/12/23	23:04
Calcium	2.00		64.3	67.8	mg/L	0.672	N/A	(0%-20%)		05/13/23	15:21
Chromium	0.0500	U	ND	0.0515	mg/L	1.83	102	(0%-20%)		05/12/23	23:04
Cobalt	0.0500		0.00285	0.0535	mg/L	0.948	101	(0%-20%)			
Iron	2.00	J	0.0557	2.11	mg/L	1.09	103	(0%-20%)			
Lead	0.0500	J	0.000526	0.0504	mg/L	1.49	99.8	(0%-20%)			
Lithium	0.0500	U	ND	0.0566	mg/L	2.62	111	(0%-20%)			
Magnesium	2.00		27.7	30.6	mg/L	1.58	N/A	(0%-20%)			
Manganese	0.0500		0.424	0.486	mg/L	0.81	N/A	(0%-20%)			

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## QC Summary

Workorder: 621821

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Molybdenum	0.0500	J	0.000948	0.0583	mg/L	3.55	115	(0%-20%)	PRB	05/12/23	23:04
Potassium	2.00		8.07	10.4	mg/L	1.61	N/A	(0%-20%)			
Selenium	0.0500		0.0539	0.106	mg/L	3.39	105	(0%-20%)			
Sodium	2.00		27.1	30.1	mg/L	0.204	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0479	mg/L	1.68	95.7	(0%-20%)			
QC1205403061	621821001	SDILT									
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/12/23	23:11
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			92.1	16.9	ug/L	8.27		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			55.2	J	10.9	ug/L	1.19	(0%-20%)		05/13/23	15:23
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/12/23	23:11
Calcium			3210	712	ug/L	10.8		(0%-20%)		05/13/23	15:23
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/12/23	23:11
Cobalt			2.85	J	0.601	ug/L	5.36	(0%-20%)			
Iron		J	55.7	U	ND	ug/L	N/A	(0%-20%)			

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## QC Summary

Workorder: 621821

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Lead	J	0.526	U	ND	ug/L	N/A		(0%-20%)	PRB	05/12/23	23:11
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		27700		5760	ug/L	3.85		(0%-20%)			
Manganese		424		88.6	ug/L	4.43		(0%-20%)			
Molybdenum	J	0.948	J	0.202	ug/L	6.54		(0%-20%)			
Potassium		8070		1610	ug/L	.17		(0%-20%)			
Selenium		53.9		10.6	ug/L	1.26		(0%-20%)			
Sodium		27100		5610	ug/L	3.49		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2428104										
QC1205402965	621542022	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	05/15/23	10:06
QC1205402964	LCS										
Mercury	0.00200			0.00180	mg/L		89.8	(80%-120%)		05/15/23	10:01
QC1205402963	MB										
Mercury			U	ND	mg/L					05/15/23	09:59
QC1205402966	621542022	MS									
Mercury	0.00200	U	ND	0.00185	mg/L		92.5	(75%-125%)		05/15/23	10:07

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## QC Summary

Workorder: 621821

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2428104										
QC1205402967	621542022	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	05/15/23	10:09
<b>Solids Analysis</b>											
Batch	2428760										
QC1205404433	621624015	DUP									
Total Dissolved Solids		270		295	mg/L	8.85*		(0%-5%)	CH6	05/16/23	14:17
QC1205404432	LCS										
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		05/16/23	14:17
QC1205404431	MB										
Total Dissolved Solids			U	ND	mg/L					05/16/23	14:17
<b>Spectrometric Analysis</b>											
Batch	2427582										
QC1205402049	LCS										
Total Sulfide	0.400			0.395	mg/L		98.8	(85%-115%)	HH2	05/15/23	11:25
QC1205402048	MB										
Total Sulfide			U	ND	mg/L					05/15/23	11:25
QC1205402050	621227011	PS									
Total Sulfide	0.400	U	ND	0.339	mg/L		83.4	(75%-125%)		05/15/23	11:25
QC1205402051	621227011	PSD									
Total Sulfide	0.400	U	ND	0.328	mg/L	3.42	80.5	(0%-15%)		05/15/23	11:25
<b>Titration and Ion Analysis</b>											
Batch	2435075										
QC1205416877	621821001	DUP									
Alkalinity, Total as CaCO3		53.4		52.9	mg/L	0.941		(0%-20%)	MS3	05/25/23	19:14
Bicarbonate alkalinity (CaCO3)		53.4		52.9	mg/L	0.941		(0%-20%)			

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## QC Summary

Workorder: 621821

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2435075										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A			MS3	05/25/23	19:14
QC1205416876 LCS											
Alkalinity, Total as CaCO3	50.0			49.9	mg/L		99.8	(90%-110%)		05/25/23	19:07
QC1205416878 621821001 MS											
Alkalinity, Total as CaCO3	50.0	53.4		105	mg/L		104	(80%-120%)		05/25/23	19:16

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.

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## QC Summary

Workorder: 621821

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B		The target analyte was detected in the associated blank.									
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
J		See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



**Technical Case Narrative  
Georgia Power Company  
SDG #: 621821**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2428157

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2428156

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205403057	Method Blank (MB)ICP-MS
1205403058	Laboratory Control Sample (LCS)
1205403061	621821001(BRA-PZ-71IL) Serial Dilution (SD)
1205403059	621821001(BRA-PZ-71IS) Matrix Spike (MS)
1205403060	621821001(BRA-PZ-71ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 621821001 (BRA-PZ-71I) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>621821</b>
	<b>001</b>
Boron	20X
Calcium	20X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2428104

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2428103

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-711
1205402963	Method Blank (MB)CVAA
1205402964	Laboratory Control Sample (LCS)
1205402967	621542022(NonSDGL) Serial Dilution (SD)
1205402965	621542022(NonSDGD) Sample Duplicate (DUP)
1205402966	621542022(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2428256

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-711
1205403293	Method Blank (MB)
1205403294	Laboratory Control Sample (LCS)
1205403295	621606008(NonSDG) Sample Duplicate (DUP)
1205403296	621606008(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

## **Technical Information**

### **Sample Dilutions**

The following samples 1205403295 (Non SDG 621606008DUP), 1205403296 (Non SDG 621606008PS) and 621821001 (BRA-PZ-71I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	621821
	001
Sulfate	50X

## **Miscellaneous Information**

### **Manual Integrations**

Samples 1205403295 (Non SDG 621606008DUP) and 621821001 (BRA-PZ-71I) were manually integrated to correctly position the baseline as set in the calibration standards.

### **Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2428760

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205404431	Method Blank (MB)
1205404432	Laboratory Control Sample (LCS)
1205404433	621624015(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Dissolved Solids	1205404433 (Non SDG 621624015DUP)	8.85* (0%-5%)

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205404433 (Non SDG 621624015DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2427582

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205402048	Method Blank (MB)
1205402049	Laboratory Control Sample (LCS)
1205402050	621227011(NonSDG) Post Spike (PS)
1205402051	621227011(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2435075

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205416876	Laboratory Control Sample (LCS)
1205416877	621821001(BRA-PZ-71I) Sample Duplicate (DUP)
1205416878	621821001(BRA-PZ-71I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: 1 of 1  
 Project # 621821  
 GEL Quote #: 621822  
 COC Number (1):  
 PO Number:  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: A Schwab ACC  
 Send Results To: SCS & Geosyntec Contacts

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 756-1178  
 GEL Work Order Number: 621822  
 GEL Project Manager: Erin Trent  
 Phone # 404-506-7116  
 Fax #  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

Sample ID <small>* For composites - indicate start and stop date/time</small>	Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments	
						Radioactive (if isotopic info.)	(7) Known or possible hazards		Metals *	EPA 6020, 6010, 7470	Radium 226 & 228	SW-846 9315, 9320	Sulfide SM 4500		Preservative Type (6)
BRA-PZ-71	05/11/23	0815	G	N	WG	N	N	8	✓	✓	✓	✓	NI	NI	field pH = <u>6.41</u> field ferrous iron = <u>0.0</u>

**Chain of Custody Signatures**  
 Relinquished By (Signed) Date Time Received by (signed) Date Time  
 1. [Signature] 5/12/23 0806 [Signature] 5/12/23 8:00  
 2. [Signature] [Signature]  
 3. [Signature] [Signature]  
 TAT Requested: boron and selenium data due 5/16/2023; standard TAT for final report  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 1 °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste (F, K, P and U-listed wastes), RE = Reactive, Waste code(s):  
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals  
 Pb = Lead  
 TSCA Regulated: PCB = Polychlorinated biphenyls  
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: GPEC

SDG/AR/COC/Work Order:

Received By: SNS

Date Received: 5/12/23

621821, 621822

Carrier and Tracking Number

Circle Applicable:  
 FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other

**Suspected Hazard Information**

Yes    No

\*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?

Hazard Class Shipped:

UN#:

If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples are to be received as radioactive?

COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?

Maximum Net Counts Observed\* (Observed Counts - Area Background Counts):

Classified as: Rad 1    Rad 2    Rad 3    0    GPM / mR/Hr

D) Did the client designate samples are hazardous?

COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?

If D or E is yes, select Hazards below.

PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:

**Sample Receipt Criteria**

Yes    NA    No

**Comments/Qualifiers (Required for Non-Conforming Items)**

1 Shipping containers received intact and sealed?

Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)

2 Chain of custody documents included with shipment?

Circle Applicable: Client contacted and provided COC    COC created upon receipt

3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?\*

Preservation Method: Wet Ice    Ice Packs    Dry ice    None    Other:  
 \*all temperatures are recorded in Celsius

4 Daily check performed and passed on IR temperature gun?

Temperature Device Serial #: IR1-23  
 Secondary Temperature Device Serial # (If Applicable):

TEMP: 1c

5 Sample containers intact and sealed?

Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)

6 Samples requiring chemical preservation at proper pH?

Sample ID's and Containers Affected:

7 Do any samples require Volatile Analysis?

If Preservation added, Lot#: \_\_\_\_\_  
 If Yes, are Encores or Soil Kits present for solids? Yes \_\_\_ No \_\_\_ NA \_\_\_ (If yes, take to VOA Freezer)  
 Do liquid VOA vials contain acid preservation? Yes \_\_\_ No \_\_\_ NA \_\_\_ (If unknown, select No)  
 Are liquid VOA vials free of headspace? Yes \_\_\_ No \_\_\_ NA \_\_\_  
 Sample ID's and containers affected: \_\_\_\_\_

8 Samples received within holding time?

ID's and tests affected:

9 Sample ID's on COC match ID's on bottles?

ID's and containers affected:

10 Date & time on COC match date & time on bottles?

Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)

11 Number of containers received match number indicated on COC?

Circle Applicable: No container count on COC    Other (describe)

12 Are sample containers identifiable as GEL provided by use of GEL labels?

13 COC form is properly signed in relinquished/received sections?

Circle Applicable: Not relinquished    Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials [Signature]

Date 5/15/23

Page 1 of 1

## Erin Trent

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**From:** Lauren Fitzgerald <LAFitzgerald@Geosyntec.com>  
**Sent:** Monday, May 22, 2023 4:23 PM  
**To:** Erin Trent; Team Trent  
**Cc:** Midkiff, Laura B.; jbraham@southernco.com; Joseph Ivanowski; Courtney Collins  
**Subject:** FW: GEL Sample Receipt 622760 for Branch CCR Groundwater Compliance  
**Attachments:** 622760coclr.pdf; 621821coclr.pdf; 621822coclr.pdf

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Erin,

Apologies for the delay in getting this change to you. For the new piezometer samples that you are analyzing, we need to make a slight change in the label from PZ-71 to PZ-71I. Please see attached the three logins that need to be updated as a result. If you need the revised COCs, please let me know.

Please let me know if you have any questions.

Thank you,  
Lauren

---

**From:** GEL Data <data@gellaboratories.com>  
**Sent:** Friday, May 19, 2023 1:17 PM  
**To:** jbraham@southernco.com; betsy.mcdaniel@atlcc.net; Chris.parker@atlcc.net; monte.jones@atlcc.net; Lauren Fitzgerald <LAFitzgerald@Geosyntec.com>; Kendall Brome <Kendall.Brome@Geosyntec.com>; KNJURINK@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com; Courtney Collins <CCollins@Geosyntec.com>  
**Subject:** GEL Sample Receipt 622760 for Branch CCR Groundwater Compliance

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you have any suspicion, please confirm with the sender verbally that this email is authentic. If you suspect fraud, click "Phish Alert Report."

GEL Laboratories, LLC received sample(s) on May 18, 2023. The final data is due to report on May 23, 2023. Please review the attached PDF. Should you find any discrepancies within the document, please call or email your project manager Erin Trent.

Do not reply to [data@gellaboratories.com](mailto:data@gellaboratories.com) as this email address is not monitored. Please contact your project manager, Erin Trent, at [Team.Trent@gel.com](mailto:Team.Trent@gel.com) regarding this message or its attachments.



**List of current GEL Certifications as of 26 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 12, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 621822

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 12, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Please see attached email regarding a change in Sample ID. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 621822 GEL Work Order: 621822

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: June 12, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-711  
 Sample ID: 621822001  
 Matrix: WG  
 Collect Date: 11-MAY-23  
 Receive Date: 12-MAY-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.52	+/-1.95	3.05	+/-2.15	3.00	pCi/L			JE1	06/08/23	1238	2430849	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.66	+/-1.97	3.05	+/-2.16		pCi/L		1	NXL1	06/12/23	1033	2433607	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.142	+/-0.260	0.499	+/-0.262	1.00	pCi/L			LXP1	06/06/23	0850	2430843	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2430849	53.3	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 621822**

**Product:** Radium-226+Radium-228 Calculation

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2433607

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621822001	BRA-PZ-711

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** GFPC Ra228, Liquid

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2430849

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621822001	BRA-PZ-711
1205408808	Method Blank (MB)
1205408809	621822001(BRA-PZ-711) Sample Duplicate (DUP)
1205408810	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Recounts**

Samples were re-eluted and recounted to verify sample results. The recounts are reported.

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2430843

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621822001	BRA-PZ-71I
1205408790	Method Blank (MB)
1205408791	621822001(BRA-PZ-71I) Sample Duplicate (DUP)
1205408792	621822001(BRA-PZ-71I) Matrix Spike (MS)
1205408793	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205408792 (BRA-PZ-71IIMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date: June 12, 2023**  
**Page 1 of 2**

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 621822

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2430849										
QC1205408809	621822001 DUP										
Radium-228		3.52		2.21	pCi/L	45.7		(0% - 100%)	JE1	06/08/23	12:38
		Uncert:	+/-1.95	+/-1.16							
		TPU:	+/-2.15	+/-1.29							
QC1205408810	LCS										
Radium-228	81.8			62.0	pCi/L		75.7	(75%-125%)	JE1	06/08/23	12:38
		Uncert:		+/-5.10							
		TPU:		+/-16.7							
QC1205408808	MB										
Radium-228			U	1.05	pCi/L				JE1	06/08/23	12:38
		Uncert:		+/-1.02							
		TPU:		+/-1.05							
<b>Rad Ra-226</b>											
Batch	2430843										
QC1205408791	621822001 DUP										
Radium-226	U	0.142	U	0.329	pCi/L	0			N/A LXP1	06/06/23	10:18
		Uncert:		+/-0.385							
		TPU:		+/-0.390							
QC1205408793	LCS										
Radium-226	26.6			28.2	pCi/L		106	(75%-125%)	LXP1	06/06/23	10:18
		Uncert:		+/-2.71							
		TPU:		+/-5.23							
QC1205408790	MB										
Radium-226			U	-0.0827	pCi/L				LXP1	06/06/23	10:18
		Uncert:		+/-0.209							
		TPU:		+/-0.209							
QC1205408792	621822001 MS										
Radium-226	131	U	0.142	127	pCi/L		97	(75%-125%)	LXP1	06/06/23	10:18
		Uncert:		+/-12.8							
		TPU:		+/-32.8							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 621822

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI										
BD										
h										
R										
^										
N/A										
ND										
M										
NJ										
FA										
UJ										
Q										
K										
UL										
L										
N1										
Y										
**										
M										
J										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: A Schwilke ACC  
 Send Results To: SCS & Geosyntec Contacts  
 Phone # 404-506-7116  
 Fax #  
 Sample ID  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Should this sample be considered:	Total number of containers	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)	Comments
BRA-PZ-71	05/11/23	0815	G	N	WG	<input type="checkbox"/> Yes, please supply isotopic info <input checked="" type="checkbox"/> Known or possible hazards <sup>(7)</sup>	8	<input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> Total Carb. & Bicarb Alk <input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> C, F, SO4, TDS, NO3 <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> Sulfide SM 4500	Note: extra sample is required for sample specific QC <b>Task_Code: BRA-CCR-ASSMT-2023S1</b>  field pH = <u>6.41</u> field ferrous iron = <u>0.0</u>

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Date	Time
<u>[Signature]</u>	5/12/23	0806	5/12/23	8:00G

TAT Requested: boron and selenium data due 5/16/2023; standard TAT for final report

Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 1 °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
AS = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: GPEC  
 Received By: SNS  
 Date Received: 5/12/23  
 Carrier and Tracking Number: \_\_\_\_\_  
 SDG/AR/COC/Work Order: 621821, 621822  
 FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other

Suspected Hazard Information	Yes	No
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B) Did the client designate the samples to be received as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

\*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 COC notation or radioactive stickers on containers equal client designation.  
 Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0  
 Classified as: Rad 1 Rad 2 Rad 3  
 COC notation or hazard labels on containers equal client designation.  
 If D or E is yes, select Hazards below:  
 PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:

Sample Receipt Criteria	Sample Receipt Criteria			Comments/Qualifiers (Required for Non-Conforming Items)
	Yes	NA	No	
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> TEMP: <u>1c</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed): \_\_\_\_\_

PM (or PMA) review: Initials AS Date 5/15/23 Page 1 of 1

## Erin Trent

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**From:** Lauren Fitzgerald <LAFitzgerald@Geosyntec.com>  
**Sent:** Monday, May 22, 2023 4:23 PM  
**To:** Erin Trent; Team Trent  
**Cc:** Midkiff, Laura B.; jbraham@southernco.com; Joseph Ivanowski; Courtney Collins  
**Subject:** FW: GEL Sample Receipt 622760 for Branch CCR Groundwater Compliance  
**Attachments:** 622760coclr.pdf; 621821coclr.pdf; 621822coclr.pdf

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Erin,

Apologies for the delay in getting this change to you. For the new piezometer samples that you are analyzing, we need to make a slight change in the label from PZ-71 to PZ-71I. Please see attached the three logins that need to be updated as a result. If you need the revised COCs, please let me know.

Please let me know if you have any questions.

Thank you,  
Lauren

---

**From:** GEL Data <data@gellaboratories.com>  
**Sent:** Friday, May 19, 2023 1:17 PM  
**To:** jbraham@southernco.com; betsy.mcdaniel@atlcc.net; Chris.parker@atlcc.net; monte.jones@atlcc.net; Lauren Fitzgerald <LAFitzgerald@Geosyntec.com>; Kendall Brome <Kendall.Brome@Geosyntec.com>; KNJURINK@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com; Courtney Collins <CCollins@Geosyntec.com>  
**Subject:** GEL Sample Receipt 622760 for Branch CCR Groundwater Compliance

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you have any suspicion, please confirm with the sender verbally that this email is authentic. If you suspect fraud, click "Phish Alert Report."

GEL Laboratories, LLC received sample(s) on May 18, 2023. The final data is due to report on May 23, 2023. Please review the attached PDF. Should you find any discrepancies within the document, please call or email your project manager Erin Trent.

Do not reply to [data@gellaboratories.com](mailto:data@gellaboratories.com) as this email address is not monitored. Please contact your project manager, Erin Trent, at [Team.Trent@gel.com](mailto:Team.Trent@gel.com) regarding this message or its attachments.

**List of current GEL Certifications as of 12 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



May 23, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 622760

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 18, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Please see attached email regarding a change in Sample ID. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 622760 GEL Work Order: 622760

**The Qualifiers in this report are defined as follows:**

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a Tracer compound

\*\* Analyte is a surrogate compound

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



---

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 23, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-71I Project: GPCC00101  
Sample ID: 622760001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 18-MAY-23 08:20  
Receive Date: 18-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Selenium		0.0539	0.00150	0.00500	mg/L	1.00	1	PRB	05/21/23	1051	2431468	1
Boron		1.18	0.0520	0.150	mg/L	1.00	10	PRB	05/21/23	1113	2431468	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	05/19/23	0730	2431467

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 23, 2023

Page 1 of 2

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 622760

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2431468										
QC1205409898	LCS										
Boron	0.100			0.101	mg/L		101	(80%-120%)	PRB	05/21/23	10:49
Selenium	0.0500			0.0503	mg/L		101	(80%-120%)			
QC1205409897	MB										
Boron			U	ND	mg/L					05/21/23	11:10
Selenium			U	ND	mg/L						
QC1205409899	622760001	MS									
Boron	0.100	1.18		1.32	mg/L		N/A	(75%-125%)		05/21/23	11:15
Selenium	0.0500	0.0539		0.102	mg/L		96.4	(75%-125%)		05/21/23	10:54
QC1205409900	622760001	MSD									
Boron	0.100	1.18		1.29	mg/L	2.13	N/A	(0%-20%)		05/21/23	11:18
Selenium	0.0500	0.0539		0.102	mg/L	0.581	95.2	(0%-20%)		05/21/23	10:56
QC1205409901	622760001	SDILT									
Boron		118		27.3	ug/L	15.4		(0%-20%)		05/21/23	11:20
Selenium		53.9		10.5	ug/L	2.99		(0%-20%)		05/21/23	11:01

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier





**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 622760**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2431468

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2431467

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
622760001	BRA-PZ-71
1205409897	Method Blank (MB)ICP-MS
1205409898	Laboratory Control Sample (LCS)
1205409901	622760001(BRA-PZ-71L) Serial Dilution (SD)
1205409899	622760001(BRA-PZ-71S) Matrix Spike (MS)
1205409900	622760001(BRA-PZ-71SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 622760001 (BRA-PZ-71) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>622760</b>
	<b>001</b>
Boron	10X

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: *J. Beersford* ACC

Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (b)	Field Filtered (h)	Sample Matrix (h)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Comments
						Yes, please supply isotopic info.	(7) Known or possible Hazards			
BRA-PZ-71	05/18/23	0820	G	N	WG			1		Note: extra sample is required for sample specific QC <b>Task Code: BRA-CCR-ASSMT-2023S1R1</b>  field pH = 6.09

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	5/17/23	<i>[Signature]</i>	5/18/23	3:47

Rush TAT Requested: boron and selenium data due 5/23/2023

Fax Results:  Yes  No

Select Deliverable:  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Se

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 16c

Sample Collection Time Zone:  Eastern  Pacific  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or a N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic	FL = Flammable/Ignitable	LW = Listed Waste	OT = Other / Unknown
Ba = Barium	CO = Corrosive	FLW = Flammable, Corrosive, and Ignitable	(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Cd = Cadmium	RE = Reactive	Waste code(s):	Description:
Cr = Chromium	TSCA Regulated		
Pb = Lead	PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**3c, 4c, 5c**



SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPEC</u>		SDG/AR/COC/Work Order: <u>622760, 622762, 622765</u>			
Received By: <u>Thyasia Tatum</u>		Date Received: <u>5/18/23</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier   Other			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>4</u> CPM / mR/Hr Classified as: Rad 1   Rad 2   Rad 3			
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius   TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials AT Date 5/19/23 Page 1 of 1

**List of current GEL Certifications as of 23 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



May 26, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 623143

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 23, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 623143 GEL Work Order: 623143

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by





# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-72I Project: GPCC00101  
Sample ID: 623143001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 22-MAY-23 10:21  
Receive Date: 23-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Selenium		0.0938	0.00150	0.00500	mg/L	1.00	1	BAJ	05/24/23	1926	2433109	1
Boron		1.13	0.104	0.300	mg/L	1.00	20	BAJ	05/25/23	0601	2433109	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	05/23/23	1545	2433108

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I Project: GPCC00101  
Sample ID: 623143002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 22-MAY-23 11:15  
Receive Date: 23-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.62	0.104	0.300	mg/L	1.00	20	BAJ	05/25/23	0605	2433109	1
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1	BAJ	05/24/23	1940	2433109	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	05/23/23	1545	2433108

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 26, 2023

Page 1 of 2

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 623143

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2433109										
QC1205413295		LCS									
Boron	0.100			0.101	mg/L		101	(80%-120%)	BAJ	05/25/23	06:00
Selenium	0.0500			0.0492	mg/L		98.4	(80%-120%)		05/24/23	19:23
QC1205413294		MB									
Boron			U	ND	mg/L					05/25/23	05:59
Selenium			U	ND	mg/L					05/24/23	19:21
QC1205413296		623143001	MS								
Boron	0.100		1.13	1.29	mg/L		N/A	(75%-125%)		05/25/23	06:02
Selenium	0.0500		0.0938	0.139	mg/L		91	(75%-125%)		05/24/23	19:29
QC1205413297		623143001	MSD								
Boron	0.100		1.13	1.24	mg/L	4.4	N/A	(0%-20%)		05/25/23	06:03
Selenium	0.0500		0.0938	0.143	mg/L	2.64	98.5	(0%-20%)		05/24/23	19:32
QC1205413298		623143001	SDILT								
Boron			56.5	J	10.5	ug/L	6.74	(0%-20%)		05/25/23	06:04
Selenium			93.8		18.0	ug/L	3.86	(0%-20%)		05/24/23	19:38

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 623143

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N											
H											
<											
>											
h											
R											
^											
N/A											
ND											
E											
NJ											
Q											
FB											
NI											
Y											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 623143**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2433109

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2433108

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
623143001	BRA-PZ-72I
623143002	BRA-PZ-73I
1205413294	Method Blank (MB)ICP-MS
1205413295	Laboratory Control Sample (LCS)
1205413298	623143001(BRA-PZ-72IL) Serial Dilution (SD)
1205413296	623143001(BRA-PZ-72IS) Matrix Spike (MS)
1205413297	623143001(BRA-PZ-72ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	623143	
	001	002
Boron	20X	20X

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL** Laboratories LLC  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 Send Results To: SCS & Geosyntec Contacts

Collected By: J. Newbold ACC

Sample ID  
 \* For composites - indicate start and stop date/time

\*Time Collected (Military) (hhmm)  
 \*Date Collected (mm/dd/yy)  
 \*Field Filtered (N)  
 \*QC Code (G)

Should this sample be considered:  
 Radioactive (if yes, please supply isotopic info)  
 Possible Hazards (Known or suspected)  
 Total number of containers  
 Metals \* EPA 6020  
 NI

Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)  
 <-- Preservative Type (6)  
 Comments  
 Note: extra sample is required for sample specific QC  
 Task Code: BRA-CCR-ASSMT-2023S1  
 field pH = 5.81  
 field pH = 5.64

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date 5/23/23 Time 0848  
 Received by (signed) \_\_\_\_\_ Date 5/23/23 Time 846

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B,Se  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

Rush TAT Requested: boron and selenium data due 5/26/2023

Chain of Custody Number = Client Determined

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 Listed Waste  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 RCRA Metals  
 As = Arsenic Hg = Mercury  
 Ba = Barium Pb = Lead  
 Cd = Cadmium Cr = Chromium  
 MR = Misc. RCRA metals  
 Other  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

623143

Client: <b>GPCC</b>	SDG/AR/COC/Work Order:
Received By: <b>Stacy Boone</b>	Date Received: <b>05.23.2023</b> <span style="float:right;"><b>ET</b></span>
Carrier and Tracking Number	Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier   Other <u>    </u>

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>    </u> CPM / mR/Hr Classified as: Rad 1   Rad 2   Rad 3
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice   Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius <span style="float:right;">TEMP: <u>16</u></span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>18822 TR529</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials      Date 6/24/23 Page 11 of



**List of current GEL Certifications as of 26 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 10, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance Reanalysis:  
Work Order: 624176

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 23, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

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## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624176 GEL Work Order: 624176

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 10, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance Reanalysis:

Client Sample ID: BRA-PZ-73I Project: GPCC00101  
Sample ID: 624176001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 22-MAY-23 11:15  
Receive Date: 23-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	06/02/23	1037	2437131	1
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		66.4	0.800	2.00	mg/L	1.00	10	PRB	06/08/23	1830	2436930	2
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	06/08/23	1758	2436930	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0256	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00131	0.000300	0.00100	mg/L	1.00	1					
Iron		0.219	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0246	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.227	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium		30.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Magnesium		29.8	0.0100	0.0300	mg/L	1.00	1	PRB	06/09/23	1250	2436930	4
Potassium		6.02	0.0800	0.300	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	06/01/23	0745	2436929
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	06/01/23	1146	2437128

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	

Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 10, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance Reanalysis:

Client Sample ID: BRA-PZ-73I  
Sample ID: 624176001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: June 10, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624176

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2436930										
QC1205420340	LCS										
Antimony	0.0500			0.0495	mg/L		99	(80%-120%)	PRB	06/08/23	17:55
Arsenic	0.0500			0.0483	mg/L		96.5	(80%-120%)			
Barium	0.0500			0.0524	mg/L		105	(80%-120%)			
Beryllium	0.0500			0.0558	mg/L		112	(80%-120%)			
Cadmium	0.0500			0.0498	mg/L		99.6	(80%-120%)			
Calcium	2.00			2.12	mg/L		106	(80%-120%)			
Chromium	0.0500			0.0496	mg/L		99.2	(80%-120%)			
Cobalt	0.0500			0.0493	mg/L		98.6	(80%-120%)			
Iron	2.00			2.00	mg/L		100	(80%-120%)			
Lead	0.0500			0.0515	mg/L		103	(80%-120%)			
Lithium	0.0500			0.0536	mg/L		107	(80%-120%)			
Magnesium	2.00			2.05	mg/L		102	(80%-120%)		06/09/23	12:49
Manganese	0.0500			0.0497	mg/L		99.5	(80%-120%)		06/08/23	17:55
Molybdenum	0.0500			0.0540	mg/L		108	(80%-120%)			

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## QC Summary

Workorder: 624176

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Potassium	2.00			2.26	mg/L		113	(80%-120%)	PRB	06/09/23	12:49
Sodium	2.00			2.28	mg/L		114	(80%-120%)		06/08/23	17:55
Thallium	0.0500			0.0509	mg/L		102	(80%-120%)			
QC1205420339	MB										
Antimony			U	ND	mg/L					06/08/23	17:51
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					06/09/23	12:47

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## QC Summary

Workorder: 624176

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Manganese			U	ND	mg/L				PRB	06/08/23	17:51
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					06/09/23	12:47
Sodium			U	ND	mg/L					06/08/23	17:51
Thallium			U	ND	mg/L						
QC1205420341 624176001 MS											
Antimony	0.0500	U	ND	0.0501	mg/L		99.9	(75%-125%)		06/08/23	18:02
Arsenic	0.0500	U	ND	0.0495	mg/L		95.5	(75%-125%)			
Barium	0.0500		0.0256	0.0754	mg/L		99.6	(75%-125%)			
Beryllium	0.0500	U	ND	0.0556	mg/L		111	(75%-125%)			
Cadmium	0.0500	U	ND	0.0500	mg/L		99.9	(75%-125%)			
Calcium	2.00		66.4	65.5	mg/L		N/A	(75%-125%)		06/08/23	18:33
Chromium	0.0500	U	ND	0.0486	mg/L		95.9	(75%-125%)		06/08/23	18:02
Cobalt	0.0500		0.00131	0.0496	mg/L		96.7	(75%-125%)			
Iron	2.00		0.219	2.16	mg/L		96.9	(75%-125%)			
Lead	0.0500	U	ND	0.0500	mg/L		99.8	(75%-125%)			



# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624176

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Lithium	0.0500	0.0246		0.0762	mg/L		103	(75%-125%)	PRB	06/08/23	18:02
Magnesium	2.00	29.8		29.9	mg/L		N/A	(75%-125%)		06/09/23	12:52
Manganese	0.0500	0.227		0.273	mg/L		N/A	(75%-125%)		06/08/23	18:02
Molybdenum	0.0500	U	ND	0.0545	mg/L		109	(75%-125%)			
Potassium	2.00	6.02		7.59	mg/L		78.5	(75%-125%)		06/09/23	12:52
Sodium	2.00	30.7		31.8	mg/L		N/A	(75%-125%)		06/08/23	18:02
Thallium	0.0500	U	ND	0.0493	mg/L		98.4	(75%-125%)			
QC1205420342	624176001 MSD										
Antimony	0.0500	U	ND	0.0504	mg/L	0.629	101	(0%-20%)		06/08/23	18:06
Arsenic	0.0500	U	ND	0.0498	mg/L	0.595	96	(0%-20%)			
Barium	0.0500	0.0256		0.0749	mg/L	0.72	98.5	(0%-20%)			
Beryllium	0.0500	U	ND	0.0562	mg/L	1.09	112	(0%-20%)			
Cadmium	0.0500	U	ND	0.0498	mg/L	0.485	99.4	(0%-20%)			
Calcium	2.00	66.4		64.2	mg/L	1.97	N/A	(0%-20%)		06/08/23	18:37
Chromium	0.0500	U	ND	0.0492	mg/L	1.07	97	(0%-20%)		06/08/23	18:06
Cobalt	0.0500	0.00131		0.0493	mg/L	0.604	96.1	(0%-20%)			

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624176

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Iron	2.00	0.219		2.13	mg/L	1.19	95.6	(0%-20%)	PRB	06/08/23	18:06
Lead	0.0500	U	ND	0.0493	mg/L	1.38	98.4	(0%-20%)			
Lithium	0.0500		0.0246	0.0771	mg/L	1.14	105	(0%-20%)			
Magnesium	2.00		29.8	29.7	mg/L	0.545	N/A	(0%-20%)		06/09/23	12:54
Manganese	0.0500		0.227	0.273	mg/L	0.152	N/A	(0%-20%)		06/08/23	18:06
Molybdenum	0.0500	U	ND	0.0548	mg/L	0.622	109	(0%-20%)			
Potassium	2.00		6.02	7.58	mg/L	0.13	78	(0%-20%)		06/09/23	12:54
Sodium	2.00		30.7	32.3	mg/L	1.32	N/A	(0%-20%)		06/08/23	18:06
Thallium	0.0500	U	ND	0.0483	mg/L	1.95	96.5	(0%-20%)			
QC1205420343 624176001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		06/08/23	18:13
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			25.6	5.02	ug/L	1.88		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			6640	1310	ug/L	.955		(0%-20%)		06/08/23	18:41

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624176

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	06/08/23	18:13
Cobalt		1.31	U	ND	ug/L	N/A		(0%-20%)			
Iron		219	J	44.1	ug/L	.975		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium		24.6	J	4.27	ug/L	13.2		(0%-20%)			
Magnesium		29800		5700	ug/L	4.49		(0%-20%)		06/09/23	12:58
Manganese		227		45.3	ug/L	.474		(0%-20%)		06/08/23	18:13
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		6020		1080	ug/L	10.3		(0%-20%)		06/09/23	12:58
Sodium		30700		5700	ug/L	7.36		(0%-20%)		06/08/23	18:13
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2437131										
QC1205420702	623246002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	06/02/23	09:40
QC1205420701	LCS										
Mercury		0.00200		0.00240	mg/L		120	(80%-120%)		06/02/23	09:32
QC1205420700	MB										
Mercury			U	ND	mg/L					06/02/23	09:30

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624176

Page 7 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2437131										
QC1205420703	623246002	MS									
Mercury	0.00200	U	ND	0.00200	mg/L		99.9	(75%-125%)	JP2	06/02/23	09:42
QC1205420704	623246002	SDILT									
Mercury		U	ND	ND	ug/L	N/A		(0%-10%)		06/02/23	09:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
 ^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.  
 For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 624176**

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2436930

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2436929

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624176001	BRA-PZ-73I
1205420339	Method Blank (MB)ICP-MS
1205420340	Laboratory Control Sample (LCS)
1205420343	624176001(BRA-PZ-73IL) Serial Dilution (SD)
1205420341	624176001(BRA-PZ-73IS) Matrix Spike (MS)
1205420342	624176001(BRA-PZ-73ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected.

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	624176
	001

Calcium	10X
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**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2437131

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2437128

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624176001	BRA-PZ-731
1205420700	Method Blank (MB)CVAA
1205420701	Laboratory Control Sample (LCS)
1205420704	623246002(NonSDGL) Serial Dilution (SD)
1205420702	623246002(NonSDGD) Sample Duplicate (DUP)
1205420703	623246002(NonSDGS) Matrix Spike (MS)


The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytcs  
 Chain of Custody and Analytical Request

2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Project # \_\_\_\_\_ of \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number <sup>(1)</sup>: 624176

PO Number: \_\_\_\_\_

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_

**GEL Project Manager:** Erin Trent

**Phone #:** 404-506-7116 **Fax #:** \_\_\_\_\_

**Client Name:** GA Power

**Project Site Name:** Plant Branch Ash Ponds - BCD

**Address:** 241 Ralph McGill Blvd SE, Atlanta GA 30308

**Collected By:** ACC

**Send Results To:** SCS & Geosyntec Contacts

Sample ID * For composites - indicate start and stop date/time	Date Collected (mm/dd/yyyy)	Time Collected (hh:mm)		QC Code (1)	Field Filtered (2)	Sample Matrix (3)	Should this sample be considered?	Total number of containers	Preservative Type (6)	Comments
		Time	Time							
BRA-PZ-731	05/22/23	1115		G	N	WG	<input checked="" type="checkbox"/> Yes, please supply additional info. (7)	None	None	field pH = 5.64

**Chain of Custody Signatures**

Time	Date	Time
1		
2		
3		

**TAT Requested:** Normal  Rush  Specify: \_\_\_\_\_ (Subject to Surcharge)

**Fax Results:**  Yes  No

**Select Deliverable:**  C of A  Level 1  Level 2  Level 3  Level 4

(1) means Chain of Custody (COC) for the sample. (2) means the sample matrix list to same matrix.

**Additional Remarks:** \_\_\_\_\_

**For Lab Receiving Use Only: Custody Seal Intact?**  Yes  No **Cooler Temp:** \_\_\_\_\_ °C

**Sample Collection Time Zone:**  Eastern  Pacific  Mountain  Other

**Chain of Custody Number = Client Determined**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, ED = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSU = Matrix Spike Duplicate Sample, C = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. ISE/08, 6010B/7470A) and number of containers provided for each (i.e. 02/08 - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, EX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<p>RCRA Metals                  AS = Arsenic Hg = Mercury                  Ba = Barium Se = Selenium                  Cd = Cadmium Ag = Silver                  Cr = Chromium MR = Misc. RCRA metals                  Pb = Lead</p>	<p>Characteristic Hazards                  FL = Flammable                  CO = Corrosive                  RE = Reactive</p>	<p>Listed Waste                  LW = Listed Waste                  (F, K, P and U listed wastes.)                  Waste code(s): _____</p>	<p>Other                  OY = Other / Unknown                  (i.e.: High flow pit, asbestos, beryllium, irritants, other misc. health hazards, etc.)                  Description: _____</p>
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**Please provide any additional details below regarding handling and/or disposal concerns (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)**

**SAMPLE RECEIPT & REVIEW FORM**

6231A3

Client: <b>GPCC</b>		SDG/AR/COC/Work Order:	
Received By: <b>Stacy Boone</b>		Date Received: <b>05.23.2023</b>	
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other <u>ET</u>	
Suspected Hazard Information		Yes    No    *) If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: <u>UNF:</u> If UN2910, is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>  </u> CPM / mR/hr Classified as: Rad 1    Rad 2    Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:	
Sample Receipt Criteria		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	Yes	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of Custody documents included with shipment?	Yes	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	Yes	Preservation Method: Wet Ice    Ice Packs    Dry Ice    None    Other: *all temperatures are recorded in Celsius    TEMP: <u>10</u>
4	Daily check performed and passed on IR temperature gun?	Yes	Temperature Device Serial #: <u>18822 TR225</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	Yes	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	Yes	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7	Do any samples require Volatile Analysis?	Yes	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (if unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	Yes	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	Yes	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	Yes	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	Yes	Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	Yes	
13	COC form is properly signed in relinquished/received sections?	Yes	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials

*[Signature]*

Date

6/24/23

Page

1 of 1



**List of current GEL Certifications as of 10 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 14, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 624375

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 01, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624375 GEL Work Order: 624375

**The Qualifiers in this report are defined as follows:**

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a Tracer compound

\*\* Analyte is a surrogate compound

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I Project: GPCC00101  
Sample ID: 624375001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-JUN-23 09:50  
Receive Date: 01-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.49			SU			AJ1	06/01/23	0950	2443527	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	06/01/23	0950	2443527	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N		0.518	0.165	0.500	mg/L		5	JLD1	06/02/23	0001	2437803	3
Chloride		7.17	0.0670	0.200	mg/L		1	JLD1	06/01/23	1852	2437803	4
Fluoride		0.158	0.0330	0.100	mg/L		1					
Sulfate		291	5.32	16.0	mg/L		40	JLD1	06/02/23	0032	2437803	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		505	2.38	10.0	mg/L			CH6	06/02/23	1407	2437940	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/06/23	1632	2437743	7
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		30.4	0.725	2.00	mg/L			JW2	06/07/23	1142	2439657	8
Bicarbonate alkalinity (CaCO3)		30.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SM 2540C	
7	SM 4500-S (2-) D	
8	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I  
Sample ID: 624375001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-72I Project: GPCC00101  
Sample ID: 624375002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 31-MAY-23 09:40  
Receive Date: 01-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.82			SU			AJ1	05/31/23	0940	2443527	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	05/31/23	0940	2443527	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.57	0.104	0.300	mg/L	1.00	20	PRB	06/08/23	1722	2437820	3
Selenium		0.0977	0.00150	0.00500	mg/L	1.00	1	PRB	06/08/23	1703	2437820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	06/02/23	0735	2437819

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: June 14, 2023

Page 1 of 4

Georgia Power Company, Southern Company  
 241 Ralph McGill Blvd NE, Bin 10160  
 Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624375

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2437803										
QC1205421940	624337001	DUP									
Chloride	U	ND	U	ND	mg/L	N/A			JLD1	06/01/23	21:57
Fluoride	U	ND	U	ND	mg/L	N/A					
Nitrate-N	U	ND	U	ND	mg/L	N/A					
Sulfate	U	ND	U	ND	mg/L	N/A					
QC1205421939	LCS										
Chloride	5.00			4.79	mg/L		95.8	(90%-110%)		06/01/23	21:26
Fluoride	2.50			2.53	mg/L		101	(90%-110%)			
Nitrate-N	2.50			2.37	mg/L		94.8	(90%-110%)			
Sulfate	10.0			9.84	mg/L		98.4	(90%-110%)			
QC1205421938	MB										
Chloride			U	ND	mg/L					06/01/23	20:55
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205421941	624337001	PS									
Chloride	5.00	U	ND	4.83	mg/L		96.6	(90%-110%)		06/01/23	23:30

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 624375

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2437803										
Fluoride	2.50	U	ND	2.52	mg/L		101	(90%-110%)	JLD1	06/01/23	23:30
Nitrate-N	2.50	U	ND	2.39	mg/L		95.7	(90%-110%)			
Sulfate	10.0	U	ND	9.84	mg/L		98.4	(90%-110%)			
<b>Metals Analysis - ICPMS</b>											
Batch	2437820										
QC1205421946	LCS										
Boron	0.100			0.107	mg/L		107	(80%-120%)	PRB	06/08/23	17:00
Selenium	0.0500			0.0483	mg/L		96.6	(80%-120%)			
QC1205421945	MB										
Boron			U	ND	mg/L					06/08/23	16:56
Selenium			U	ND	mg/L						
QC1205421947	624375002 MS										
Boron	0.100		1.57	1.41	mg/L		N/A	(75%-125%)		06/08/23	17:33
Selenium	0.0500		0.0977	0.145	mg/L		93.9	(75%-125%)		06/08/23	17:07
QC1205421948	624375002 MSD										
Boron	0.100		1.57	1.41	mg/L	0.381	N/A	(0%-20%)		06/08/23	17:37
Selenium	0.0500		0.0977	0.148	mg/L	2.27	100	(0%-20%)		06/08/23	17:11
QC1205421949	624375002 SDILT										
Boron			78.4	17.6	ug/L	12.3		(0%-20%)		06/08/23	17:40
Selenium			97.7	18.2	ug/L	6.73		(0%-20%)		06/08/23	17:19



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 624375

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch 2437940											
QC1205422265	624276002	DUP									
Total Dissolved Solids		964		1000	mg/L	3.87		(0%-5%)	CH6	06/02/23	14:07
QC1205422263	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		06/02/23	14:07
QC1205422262	MB										
Total Dissolved Solids			U	ND	mg/L					06/02/23	14:07
<b>Spectrometric Analysis</b>											
Batch 2437743											
QC1205421868	LCS										
Total Sulfide	0.400			0.414	mg/L		104	(85%-115%)	JW2	06/06/23	16:25
QC1205421867	MB										
Total Sulfide			U	ND	mg/L					06/06/23	16:25
QC1205421869	624069002	PS									
Total Sulfide	0.400	U	ND	0.382	mg/L		95.4	(75%-125%)		06/06/23	16:25
QC1205421870	624069002	PSD									
Total Sulfide	0.400	U	ND	0.377	mg/L	1.18	94.3	(0%-15%)		06/06/23	16:26
<b>Titration and Ion Analysis</b>											
Batch 2439657											
QC1205425592	624405001	DUP									
Alkalinity, Total as CaCO3		103		103	mg/L	0.485		(0%-20%)	JW2	06/07/23	11:50
QC1205425591	LCS										
Alkalinity, Total as CaCO3	50.0			50.7	mg/L		101	(90%-110%)		06/07/23	11:39
QC1205425593	624405001	MS									
Alkalinity, Total as CaCO3	50.0	103		156	mg/L		106	(80%-120%)		06/07/23	11:57

Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624375

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624375**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2437820

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2437819

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375002	BRA-PZ-72I
1205421945	Method Blank (MB)ICP-MS
1205421946	Laboratory Control Sample (LCS)
1205421949	624375002(BRA-PZ-72IL) Serial Dilution (SD)
1205421947	624375002(BRA-PZ-72IS) Matrix Spike (MS)
1205421948	624375002(BRA-PZ-72ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>624375</b>
	<b>002</b>
Boron	20X

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2437803

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205421938	Method Blank (MB)
1205421939	Laboratory Control Sample (LCS)
1205421940	624337001(NonSDG) Sample Duplicate (DUP)
1205421941	624337001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Technical Information**

#### **Sample Dilutions**

The following sample 624375001 (BRA-PZ-73I) was diluted because target analyte concentrations exceeded the calibration range. The following sample 624375001 (BRA-PZ-73I) in this sample group was diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>624375</b>
	<b>001</b>
Nitrate-N	5X
Sulfate	40X

**Product:** Solids, Total Dissolved

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2437940

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205422262	Method Blank (MB)
1205422263	Laboratory Control Sample (LCS)
1205422265	624276002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205422265 (Non SDG 624276002DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2437743

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205421867	Method Blank (MB)
1205421868	Laboratory Control Sample (LCS)
1205421869	624069002(NonSDG) Post Spike (PS)
1205421870	624069002(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2439657

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205425591	Laboratory Control Sample (LCS)
1205425592	624405001(NonSDG) Sample Duplicate (DUP)
1205425593	624405001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiology | Radiochemistry | Specialty Analytics  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Laboratories LLC**  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: 404-506-7116  
 Phone # 404-506-7116  
 Fax #

Project # \_\_\_\_\_ of \_\_\_\_\_  
 GEL Quote # \_\_\_\_\_  
 COC Number: \_\_\_\_\_  
 PO Number: \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BOD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: AS, J&E ACC  
 Send Results To: SCS & Geosyntec Contacts

**Sample ID:** \_\_\_\_\_  
 (For comparison - the container should also contain a blank)

Sample ID	Date Collected (analytical)	Time Collected (analytical)	OC (Cold or Warm)	Field Sample (March)	Field Filtered (March)	Field pH	Field Ferrous Iron	Field pH	Field Ferrous Iron
BRA-PZ-731	06/01/23	0950	G	N	WG	N	7	5.44	5.49
BRA-PZ-721	05/31/23	0940	G	N	WG	N	1	5.82	5.82

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	06/01/23	<u>[Signature]</u>	06/01/23	1634

**Additional Information:**

Task Code: BRA-GCR  
 ASSM17031SR1

Field pH = 5.44  
 Field Ferrous Iron = 0.0 mg/L

Field pH = 5.82  
 Field Ferrous Iron = 0.0 mg/L

Additional Remarks: B, S

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

**Sample Collection Time Zone:** \_\_\_\_\_

**Sample Collection Location:** \_\_\_\_\_

**Sample Collection Container:** \_\_\_\_\_

**Chain of Custody Signatures**

TAT Requested:  Normal  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharges)

QC Code: N = Normal Sample, FB = Trip Blank, JD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

Field Filtered: For liquid matrices, indicate with E - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

Matrix Codes: YD=Drinking Water, WC=Groundwater, WS=Surface Water, WTP=Process Water, WPL=Leachate, SO=Soil, SE=Soil, SI=Sludge, WQ=Water Quality Control Matrix

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 8010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 60128/7470A - 1).

Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SE = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, EA = Formic Acid, ST = Sodium Thiosulfate, if no preservative is added = leave field blank

**KNOWN OR POSSIBLE HAZARDS:**

Flammable/Explosive: \_\_\_\_\_  
 Corrosive: \_\_\_\_\_  
 Reactive: \_\_\_\_\_  
 Toxic: \_\_\_\_\_  
 PCBs: \_\_\_\_\_  
 Other: \_\_\_\_\_

**Characteristics:** \_\_\_\_\_  
 TSCA Regulated: \_\_\_\_\_  
 PCBs: \_\_\_\_\_  
 Other: \_\_\_\_\_

**Other:** \_\_\_\_\_  
 (i.e. Eight (8) 20L containers very clean, 17 containers 60L misc. health hazard, etc.)

Sample ID 515783

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624375</u>	
Received By: <u>QG</u>		Date Received: <u>6/1/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier <u>Other</u>	
		<u>n/a</u>	
Suspected Hazard Information		Yes	No
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/hr/Hr Classified as: Rad 1   Rad 2   Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____
Sample Receipt Criteria		Yes	No
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials mg Date 6/2/23 Page 1 of 1



**List of current GEL Certifications as of 14 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 14, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 624831

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624832 GEL Work Order: 624832

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

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## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624831 GEL Work Order: 624831

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-5 Project: GPCC00101  
Sample ID: 624831001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 05-JUN-23 11:05  
Receive Date: 06-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.81			SU			EOS1	06/05/23	1105	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	06/05/23	1105	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		62.1	1.33	4.00	mg/L		10	JLD1	06/06/23	2358	2439679	3
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	JLD1	06/06/23	2222	2439679	4
Chloride		0.693	0.0670	0.200	mg/L		1	JLD1	06/06/23	1632	2439679	5
Fluoride		0.113	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.366	0.0260	0.0750	mg/L	1.00	5	PRB	06/12/23	2012	2439741	6
Calcium		36.8	0.0800	0.200	mg/L	1.00	1	PRB	06/12/23	2044	2439741	7
Cobalt	J	0.000852	0.000300	0.00100	mg/L	1.00	1					
Iron		21.1	0.0330	0.100	mg/L	1.00	1					
Magnesium		5.14	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.751	0.00100	0.00500	mg/L	1.00	1					
Potassium		11.6	0.0800	0.300	mg/L	1.00	1					
Sodium		2.97	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		232	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1721	2440523	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		96.1	0.725	2.00	mg/L			JW2	06/08/23	1024	2440524	10
Bicarbonate alkalinity (CaCO3)		96.1	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-5 Project: GPCC00101  
Sample ID: 624831001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-4	Project: GPCC00101
Sample ID: 624831002	Client ID: GPCC001
Matrix: WG	
Collect Date: 05-JUN-23 13:15	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.79			SU			EOS1	06/05/23	1315	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		2			mg/L			EOS1	06/05/23	1315	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.112	0.0330	0.100	mg/L	1		JLD1	06/06/23	1529	2439679	3
Chloride		19.3	0.335	1.00	mg/L	5		JLD1	06/06/23	1943	2439679	4
Nitrate-N		1.16	0.165	0.500	mg/L		5					
Sulfate		284	5.32	16.0	mg/L		40	JLD1	06/06/23	2015	2439679	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Cobalt		0.00586	0.000300	0.00100	mg/L	1.00	1	PRB	06/12/23	2102	2439741	6
Iron		2.23	0.0330	0.100	mg/L	1.00	1					
Magnesium		24.6	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.821	0.00100	0.00500	mg/L	1.00	1					
Potassium		13.8	0.0800	0.300	mg/L	1.00	1					
Sodium		40.9	0.0800	0.250	mg/L	1.00	1					
Calcium		95.2	1.60	4.00	mg/L	1.00	20	PRB	06/13/23	1512	2439741	7
Boron		1.05	0.130	0.375	mg/L	1.00	25	PRB	06/13/23	0921	2439741	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		593	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1721	2440523	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			JW2	06/08/23	1028	2440524	11
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-4 Project: GPCC00101  
Sample ID: 624831002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		
10	SM 4500-S (2-) D		
11	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-3  
Sample ID: 624831003  
Matrix: WG  
Collect Date: 05-JUN-23 15:10  
Receive Date: 06-JUN-23  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		8.40			SU			EOS1	06/05/23	1510	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	06/05/23	1510	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.129	0.0330	0.100	mg/L		1	JLD1	06/06/23	1600	2439679	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		29.6	2.68	8.00	mg/L		40	JLD1	06/07/23	0932	2439679	4
Sulfate		636	5.32	16.0	mg/L		40					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1	PRB	06/12/23	2106	2439741	5
Iron		0.123	0.0330	0.100	mg/L	1.00	1					
Magnesium		34.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0701	0.00100	0.00500	mg/L	1.00	1					
Potassium		14.9	0.0800	0.300	mg/L	1.00	1					
Calcium		166	1.60	4.00	mg/L	1.00	20	PRB	06/13/23	1515	2439741	6
Sodium		50.0	1.60	5.00	mg/L	1.00	20					
Boron		1.28	0.130	0.375	mg/L	1.00	25	PRB	06/13/23	0923	2439741	7
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		826	4.76	20.0	mg/L			CH6	06/07/23	1447	2440211	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1722	2440523	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		148	0.725	2.00	mg/L			JW2	06/08/23	1032	2440524	10
Bicarbonate alkalinity (CaCO3)		146	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)		2.20	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-3      Project: GPCC00101  
Sample ID: 624831003      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS	3005A PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 15, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I	Project: GPCC00101
Sample ID: 624832001	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-JUN-23 09:40	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.83			SU			EOS1	06/06/23	0940	2439624	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1.5			mg/L			EOS1	06/06/23	0940	2439624	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		304	5.32	16.0	mg/L		40	JLD1	06/07/23	0134	2439679	3
Chloride		8.22	0.0670	0.200	mg/L		1	JLD1	06/06/23	1911	2439679	4
Fluoride	J	0.0891	0.0330	0.100	mg/L		1					
Nitrate-N		0.793	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Iron		1.38	0.0330	0.100	mg/L	1.00	1	BAJ	06/12/23	1506	2439851	5
Magnesium		37.9	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.602	0.00100	0.00500	mg/L	1.00	1					
Potassium		5.65	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0237	0.00150	0.00500	mg/L	1.00	1					
Sodium		28.8	0.0800	0.250	mg/L	1.00	1					
Boron		1.24	0.0520	0.150	mg/L	1.00	10	BAJ	06/13/23	1146	2439851	6
Calcium		70.1	0.800	2.00	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		523	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	7
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1723	2440523	8
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		43.4	0.725	2.00	mg/L			JW2	06/08/23	1036	2440524	9
Bicarbonate alkalinity (CaCO3)		43.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 15, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID: BRA-PZ-74I Project: GPCC00101  
Sample ID: 624832001 Client ID: GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439850		

The following Analytical Methods were performed:

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Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		
8	SM 4500-S (2-) D		
9	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: June 15, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624832

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
QC1205425631	624831001	DUP									
Chloride		0.693		0.685	mg/L	1.22	^	(+/-0.200)	JLD1	06/06/23	17:04
Fluoride		0.113		0.114	mg/L	1.32	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				06/06/23	22:54
Sulfate		62.1		61.9	mg/L	0.445		(0%-20%)		06/07/23	00:30
QC1205425630	LCS										
Chloride	5.00			4.83	mg/L			96.5 (90%-110%)		06/06/23	18:39
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.86	mg/L			98.6 (90%-110%)			
QC1205425629	MB										
Chloride			U	ND	mg/L					06/06/23	18:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205425632	624831001	PS									
Chloride	5.00	0.693		5.45	mg/L			95.2 (90%-110%)		06/06/23	17:36

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624832

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
Fluoride	2.50	0.113		2.54	mg/L		97.1	(90%-110%)	JLD1	06/06/23	17:36
Nitrate-N	2.50	U	ND	2.22	mg/L		88.7*	(90%-110%)		06/06/23	23:26
Sulfate	10.0	6.21		16.1	mg/L		98.6	(90%-110%)		06/07/23	01:02
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
QC1205425805	LCS										
Boron	0.100			0.112	mg/L		112	(80%-120%)	BAJ	06/13/23	11:45
Calcium	2.00			2.15	mg/L		107	(80%-120%)			
Iron	2.00			2.06	mg/L		103	(80%-120%)		06/12/23	15:03
Magnesium	2.00			2.22	mg/L		111	(80%-120%)			
Manganese	0.0500			0.0521	mg/L		104	(80%-120%)			
Potassium	2.00			2.07	mg/L		104	(80%-120%)			
Selenium	0.0500			0.0499	mg/L		99.7	(80%-120%)			
Sodium	2.00			2.18	mg/L		109	(80%-120%)			
QC1205425804	MB										
Boron			U	ND	mg/L					06/13/23	11:43
Calcium			U	ND	mg/L						
Iron			U	ND	mg/L					06/12/23	14:59

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624832

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
Magnesium			U	ND	mg/L				BAJ	06/12/23	14:59
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205425806 624832001 MS											
Boron	0.100	1.24		1.38	mg/L		N/A	(75%-125%)		06/13/23	11:48
Calcium	2.00	70.1		73.0	mg/L		N/A	(75%-125%)			
Iron	2.00	1.38		3.47	mg/L		104	(75%-125%)		06/12/23	15:10
Magnesium	2.00	37.9		41.8	mg/L		N/A	(75%-125%)			
Manganese	0.0500	0.602		0.681	mg/L		N/A	(75%-125%)			
Potassium	2.00	5.65		8.00	mg/L		117	(75%-125%)			
Selenium	0.0500	0.0237		0.0747	mg/L		102	(75%-125%)			
Sodium	2.00	28.8		32.5	mg/L		N/A	(75%-125%)			
QC1205425807 624832001 MSD											
Boron	0.100	1.24		1.34	mg/L	2.8	N/A	(0%-20%)		06/13/23	11:50
Calcium	2.00	70.1		71.0	mg/L	2.84	N/A	(0%-20%)			

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## QC Summary

Workorder: 624832

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
Iron	2.00	1.38		3.22	mg/L	7.5	91.9	(0%-20%)	BAJ	06/12/23	15:14
Magnesium	2.00	37.9		39.5	mg/L	5.72	N/A	(0%-20%)			
Manganese	0.0500	0.602		0.640	mg/L	6.32	N/A	(0%-20%)			
Potassium	2.00	5.65		7.63	mg/L	4.73	98.9	(0%-20%)			
Selenium	0.0500	0.0237		0.0690	mg/L	7.9	90.6	(0%-20%)			
Sodium	2.00	28.8		30.2	mg/L	7.32	N/A	(0%-20%)			
QC1205425808 624832001 SDILT											
Boron		124		25.1	ug/L	1.01		(0%-20%)		06/13/23	11:52
Calcium		7010		1440	ug/L	2.91		(0%-20%)			
Iron		1380		287	ug/L	3.81		(0%-20%)		06/12/23	15:21
Magnesium		37900		7290	ug/L	3.77		(0%-20%)			
Manganese		602		124	ug/L	3.44		(0%-20%)			
Potassium		5650		1130	ug/L	.271		(0%-20%)			
Selenium		23.7	J	4.40	ug/L	7.28		(0%-20%)			
Sodium		28800		5590	ug/L	2.96		(0%-20%)			



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## QC Summary

Workorder: 624832

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2440211										
QC1205426454	624719002	DUP									
Total Dissolved Solids		562		556	mg/L	1.07		(0%-5%)	CH6	06/07/23	14:47
QC1205426452	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		06/07/23	14:47
QC1205426451	MB										
Total Dissolved Solids			U	ND	mg/L					06/07/23	14:47
<b>Spectrometric Analysis</b>											
Batch	2440523										
QC1205427032	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	06/09/23	17:18
QC1205427031	MB										
Total Sulfide			U	ND	mg/L					06/09/23	17:18
QC1205427035	624713005	PS									
Total Sulfide	0.400	U	ND	0.406	mg/L		101	(75%-125%)		06/09/23	17:18
QC1205427036	624713005	PSD									
Total Sulfide	0.400	U	ND	0.403	mg/L	0.552	101	(0%-15%)		06/09/23	17:18
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427040	624949002	DUP									
Alkalinity, Total as CaCO3		82.2		82.3	mg/L	0.122		(0%-20%)	JW2	06/08/23	10:41
Carbonate alkalinity (CaCO3)			U	ND	J	0.800		200			
QC1205427039	LCS										
Alkalinity, Total as CaCO3	50.0			51.4	mg/L		103	(90%-110%)		06/08/23	10:20

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## QC Summary

Workorder: 624832

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427041	624949002	MS									
Alkalinity, Total as CaCO3	50.0	82.2		135	mg/L		105	(80%-120%)	JW2	06/08/23	10:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

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## QC Summary

Workorder: 624832

Page 7 of 7

<u>Parmname</u>	<u>NOM</u>	<u>Sample</u>	<u>Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: June 14, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624831

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
QC1205425631	624831001	DUP									
Chloride		0.693		0.685	mg/L	1.22	^	(+/-0.200)	JLD1	06/06/23	17:04
Fluoride		0.113		0.114	mg/L	1.32	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				06/06/23	22:54
Sulfate		62.1		61.9	mg/L	0.445		(0%-20%)		06/07/23	00:30
QC1205425630	LCS										
Chloride	5.00			4.83	mg/L			96.5 (90%-110%)		06/06/23	18:39
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.86	mg/L			98.6 (90%-110%)			
QC1205425629	MB										
Chloride			U	ND	mg/L					06/06/23	18:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205425632	624831001	PS									
Chloride	5.00	0.693		5.45	mg/L			95.2 (90%-110%)		06/06/23	17:36

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## QC Summary

Workorder: 624831

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
Fluoride	2.50	0.113		2.54	mg/L		97.1	(90%-110%)	JLD1	06/06/23	17:36
Nitrate-N	2.50	U	ND	2.22	mg/L		88.7*	(90%-110%)		06/06/23	23:26
Sulfate	10.0	6.21		16.1	mg/L		98.6	(90%-110%)		06/07/23	01:02
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
QC1205425680	LCS										
Boron	0.100			0.0972	mg/L		97.2	(80%-120%)	PRB	06/12/23	20:08
Calcium	2.00			2.07	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0503	mg/L		101	(80%-120%)			
Iron	2.00			1.97	mg/L		98.6	(80%-120%)			
Magnesium	2.00			1.96	mg/L		97.8	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Sodium	2.00			1.98	mg/L		99.2	(80%-120%)			
QC1205425679	MB										
Boron			U	ND	mg/L					06/12/23	20:04
Calcium			U	ND	mg/L						
Cobalt			U	ND	mg/L						

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## QC Summary

Workorder: 624831

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
Iron			U	ND	mg/L				PRB	06/12/23	20:04
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205425681 624831001 MS											
Boron	0.100	0.366		0.478	mg/L		112	(75%-125%)		06/12/23	20:15
Calcium	2.00	36.8		40.0	mg/L		N/A	(75%-125%)		06/12/23	20:48
Cobalt	0.0500	J 0.000852		0.0543	mg/L		107	(75%-125%)			
Iron	2.00	21.1		24.0	mg/L		N/A	(75%-125%)			
Magnesium	2.00	5.14		7.32	mg/L		109	(75%-125%)			
Manganese	0.0500	0.751		0.834	mg/L		N/A	(75%-125%)			
Potassium	2.00	11.6		14.3	mg/L		N/A	(75%-125%)			
Sodium	2.00	2.97		5.14	mg/L		108	(75%-125%)			
QC1205425682 624831001 MSD											
Boron	0.100	0.366		0.472	mg/L	1.29	106	(0%-20%)		06/12/23	20:19
Calcium	2.00	36.8		38.0	mg/L	5.01	N/A	(0%-20%)		06/12/23	20:51

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## QC Summary

Workorder: 624831

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
Cobalt	0.0500	J	0.000852	0.0515	mg/L	5.27	101	(0%-20%)	PRB	06/12/23	20:51
Iron	2.00		21.1	22.9	mg/L	4.47	N/A	(0%-20%)			
Magnesium	2.00		5.14	7.02	mg/L	4.14	94.3	(0%-20%)			
Manganese	0.0500		0.751	0.793	mg/L	5.06	N/A	(0%-20%)			
Potassium	2.00		11.6	13.7	mg/L	4.08	N/A	(0%-20%)			
Sodium	2.00		2.97	4.87	mg/L	5.36	94.8	(0%-20%)			
QC1205425683 624831001 SDILT											
Boron			73.2	15.6	ug/L	6.23		(0%-20%)		06/12/23	20:26
Calcium			36800	7010	ug/L	4.65		(0%-20%)		06/12/23	20:59
Cobalt		J	0.852	U	ug/L	N/A		(0%-20%)			
Iron			21100	4210	ug/L	.207		(0%-20%)			
Magnesium			5140	1060	ug/L	3.08		(0%-20%)			
Manganese			751	152	ug/L	1.08		(0%-20%)			
Potassium			11600	2200	ug/L	5.2		(0%-20%)			
Sodium			2970	591	ug/L	.607		(0%-20%)			

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## QC Summary

Workorder: 624831

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2440211										
QC1205426456	624949002	DUP									
Total Dissolved Solids			134	138	mg/L	2.94		(0%-5%)	CH6	06/07/23	14:47
QC1205426452	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		06/07/23	14:47
QC1205426451	MB										
Total Dissolved Solids			U	ND	mg/L					06/07/23	14:47
<b>Spectrometric Analysis</b>											
Batch	2440523										
QC1205427032	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	06/09/23	17:18
QC1205427031	MB										
Total Sulfide			U	ND	mg/L					06/09/23	17:18
QC1205427035	624713005	PS									
Total Sulfide	0.400	U	ND	0.406	mg/L		101	(75%-125%)		06/09/23	17:18
QC1205427036	624713005	PSD									
Total Sulfide	0.400	U	ND	0.403	mg/L	0.552	101	(0%-15%)		06/09/23	17:18
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427040	624949002	DUP									
Alkalinity, Total as CaCO3			82.2	82.3	mg/L	0.122		(0%-20%)	JW2	06/08/23	10:41
Carbonate alkalinity (CaCO3)		U	ND	J	0.800	mg/L	200				
QC1205427039	LCS										
Alkalinity, Total as CaCO3	50.0			51.4	mg/L		103	(90%-110%)		06/08/23	10:20



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## QC Summary

Workorder: 624831

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427041	624949002	MS									
Alkalinity, Total as CaCO3	50.0	82.2		135	mg/L		105	(80%-120%)	JW2	06/08/23	10:43

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

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## QC Summary

Workorder: 624831

Page 7 of 7

<u>Parmname</u>	<u>NOM</u>	<u>Sample</u>	<u>Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	---------------	-------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624831**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2439741

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2439740

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205425679	Method Blank (MB)ICP-MS
1205425680	Laboratory Control Sample (LCS)
1205425683	624831001(BRA-IW-B-5L) Serial Dilution (SD)
1205425681	624831001(BRA-IW-B-5S) Matrix Spike (MS)
1205425682	624831001(BRA-IW-B-5SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected.

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte

concentrations were within the linear calibration range of the instrument.

Analyte	624831		
	001	002	003
Boron	5X	25X	25X
Calcium	1X	20X	20X
Sodium	1X	1X	20X

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2439679

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205425629	Method Blank (MB)
1205425630	Laboratory Control Sample (LCS)
1205425631	624831001(BRA-IW-B-5) Sample Duplicate (DUP)
1205425632	624831001(BRA-IW-B-5) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Nitrate-N	1205425632 (BRA-IW-B-5PS)	88.7* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS), 624831001 (BRA-IW-B-5), 624831002 (BRA-IW-B-4) and 624831003 (BRA-IW-B-3) were diluted because target analyte

concentrations exceeded the calibration range. The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS), 624831001 (BRA-IW-B-5) and 624831002 (BRA-IW-B-4) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	624831		
	001	002	003
Chloride	1X	5X	40X
Nitrate-N	2X	5X	1X
Sulfate	10X	40X	40X

**Sample Re-analysis**

Sample 624831003 (BRA-IW-B-3) was re-analyzed to verify the result.

**Miscellaneous Information**

**Manual Integrations**

Samples 1205425631 (BRA-IW-B-5DUP), 624831001 (BRA-IW-B-5) and 624831003 (BRA-IW-B-3) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2440211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205426451	Method Blank (MB)
1205426452	Laboratory Control Sample (LCS)
1205426456	624949002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 624831003 (BRA-IW-B-3).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2440523

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205427031	Method Blank (MB)
1205427032	Laboratory Control Sample (LCS)
1205427035	624713005(NonSDG) Post Spike (PS)
1205427036	624713005(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2440524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205427039	Laboratory Control Sample (LCS)
1205427040	624949002(NonSDG) Sample Duplicate (DUP)
1205427041	624949002(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

Meets GEL's limits.

Sample	Analyte	Value
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1205427040 (Non SDG 624949002DUP)	Carbonate alkalinity (CaCO <sub>3</sub> )	28.6* (0%-20%)
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**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624832**

**Metals**

**Product: Determination of Metals by ICP-MS**

**Analytical Method: SW846 3005A/6020B**

**Analytical Procedure: GL-MA-E-014 REV# 35**

**Analytical Batch: 2439851**

**Preparation Method: SW846 3005A**

**Preparation Procedure: GL-MA-E-006 REV# 14**

**Preparation Batch: 2439850**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205425804	Method Blank (MB)ICP-MS
1205425805	Laboratory Control Sample (LCS)
1205425808	624832001(BRA-PZ-74IL) Serial Dilution (SD)
1205425806	624832001(BRA-PZ-74IS) Matrix Spike (MS)
1205425807	624832001(BRA-PZ-74ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>624832</b>
	<b>001</b>
Boron	10X
Calcium	10X



## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2439679

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205425629	Method Blank (MB)
1205425630	Laboratory Control Sample (LCS)
1205425631	624831001(BRA-IW-B-5) Sample Duplicate (DUP)
1205425632	624831001(BRA-IW-B-5) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Nitrate-N	1205425632 (BRA-IW-B-5PS)	88.7* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS) and 624832001 (BRA-PZ-74I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205425631 (BRA-IW-B-5DUP) and 1205425632 (BRA-IW-B-5PS) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	624832
	001
Sulfate	40X

### **Miscellaneous Information**

**Manual Integrations**

Sample 1205425631 (BRA-IW-B-5DUP) was manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2440211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205426451	Method Blank (MB)
1205426452	Laboratory Control Sample (LCS)
1205426454	624719002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205426454 (Non SDG 624719002DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2440523

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205427031	Method Blank (MB)
1205427032	Laboratory Control Sample (LCS)
1205427035	624713005(NonSDG) Post Spike (PS)
1205427036	624713005(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration,

continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2440524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205427039	Laboratory Control Sample (LCS)
1205427040	624949002(NonSDG) Sample Duplicate (DUP)
1205427041	624949002(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

Meets GEL's limits.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205427040 (Non SDG 624949002DUP)	Carbonate alkalinity (CaCO <sub>3</sub> )	28.6* (0%-20%)

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

**GEL** Laboratories LLC **624831**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

**Chain of Custody and Analytical Request**

**GEL Work Order Number:** *GEL Project Manager: Erin Trent*

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: *J. Brasfield* ACC

Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Sample Analysis Requested (5) (Fill in the number of containers for each test)  
 <-- Preservative Type (6)

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm) (hhmm))	QC Code (3)	Field Filtered (b)	Sample Matrix (6)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5)				Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1
						Radioactive (if yes, please supply isotopic info)	(7) Known or possible Hazards		Metals * EPA 6020	Total Carb. & Bicarb Alk SM 2320B	Sulfide SM 4500	SH	
BRA-IW-B-5	06/05/23	1105	G	N	WG			3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.81 field ferrous iron = 6.0 mg/L
BRA-IW-B-4	06/05/23	1315	G	N	WG			3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.79 field ferrous iron = 2.0 mg/L
BRA-IW-B-3	06/05/23	1510	G	N	WG			3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 8.40 field ferrous iron = 0.0 mg/L

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	6/6/23	0824	<i>[Signature]</i>	6/6/23	8:39
<i>[Signature]</i>	6/6/23	1:14	<i>[Signature]</i>	6/6/23	13:00

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Co,Fe,Mg,Mn,K,Na

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, C = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

Characteristic Hazards	Listed Waste	Other
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

**RCRA Metals**  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>Epcc</u>		SDG/AR/COC/Work Order: <u>624831</u>		<u>FT</u>	
Received By: <u>Thyasia Tatum</u>		Date Received: <u>10/10/23</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier <u>Other</u>			
Suspected Hazard Information		Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>6</u> CPM / mR/Hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____	
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: _____ *all temperatures are recorded in Celsius      TEMP: <u>2C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials MTB Date 10/18/23 Page 1 of 1



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
**Chain of Custody and Analytical Request**  
 GEL Project Manager: Erin Trent  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_  
**Client Name:** GA Power  
**Project/Site Name:** Plant Branch Ash Ponds - BCD  
**Address:** 241 Ralph McGill Blvd SE, Atlanta GA 30308  
**Collected By:** *Ben Feld ACC*

Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (5) Yes, please supply isotopic info	(7) Known or possible Hazards	Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Comments
BRA-PZ-741	06/06/23	0940	G	N	WG			C1, F, SO4, TDS, NO3 EPA 300, SM 2540C Total Carb. & Bicarb Alk SM 2320B Metals * EPA 6020, 7470 Sulfide SM 4500 NI	Note: extra sample is required for sample specific QC <b>Task Code: BRA-CCR-ASSMT-2023SI</b> field pH = 5.83 field ferrous iron = 1.5 mg/L	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	6/6/23	1539	<i>[Signature]</i>	6/6/23	1539
2					
3					

**TAT Requested:** Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

**Additional Remarks:** \* Metals: B,Ca,Se,Fe,Mg,Mn,K,Na,Hg  
**For Lab Receiving Use Only: Custody Seal Intact?**  Yes  No **Cooler Temp:** \_\_\_\_\_ °C

**Sample Collection Time Zone:**  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

ET

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624-832</u>	
Received By: <u>QG</u>		Date Received: <u>6/6/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other	
Suspected Hazard Information		*If Not Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___	
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>	
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below: PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:	
Sample Receipt Criteria		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Circle Applicable:   Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Circle Applicable:   Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius <b>TEMP: <u>1°</u></b>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Temperature Device Serial #: <u>122-20</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Circle Applicable:   Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___ (If yes, take to VOA Freezer)
			Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No)
			Are liquid VOA vials free of headspace? Yes___ No___ NA___
8	Samples received within holding time?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Circle Applicable:   No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Circle Applicable: <u>No container count on COC</u> Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Circle Applicable:   Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AS Date 6/7/23 Page 1 of 1

**List of current GEL Certifications as of 15 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



**List of current GEL Certifications as of 14 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



July 21, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD and Reanalysis: additional analysis for 624832  
Work Orders: 627361 and 624831

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 627361 GEL Work Order: 627361

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- h Preparation or preservation holding time was exceeded

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: July 21, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD and Reanalysis: additional analysis for 624832

Client Sample ID: BRA-PZ-74I	Project: GPCC00101
Sample ID: 627361001	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-JUN-23 09:40	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	hHU	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	07/12/23	0929	2456195	1
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	PRB	07/18/23	2050	2450023	2
Barium		0.0586	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00258	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00704	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00276	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.0262	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	07/19/23	0023	2450023	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	06/27/23	0750	2450022
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	07/11/23	1120	2456194

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: July 21, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD and Reanalysis: additional analysis for 624832

Client Sample ID: BRA-PZ-74I  
Sample ID: 627361001  
Matrix: WG  
Collect Date: 06-JUN-23  
Receive Date: 06-JUN-23  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.18	+/-1.22	1.82	+/-1.34	3.00	pCi/L			JE1	07/15/23	1514	2451868	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.80	+/-1.54	1.82	+/-2.01		pCi/L			NXL1	07/21/23	0828	2451867	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		5.63	+/-0.932	0.303	+/-1.50	1.00	pCi/L			LXP1	07/20/23	1040	2451862	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2451868	71.8	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: July 21, 2023

Page 1 of 6

Georgia Power Company, Southern Company  
 241 Ralph McGill Blvd NE, Bin 10160  
 Atlanta, Georgia

Contact: Joju Abraham

Workorder: 627361

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
QC1205443726	LCS										
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	07/19/23	00:19
Arsenic	0.0500			0.0487	mg/L		97.4	(80%-120%)		07/18/23	20:46
Barium	0.0500			0.0499	mg/L		99.8	(80%-120%)			
Beryllium	0.0500			0.0548	mg/L		110	(80%-120%)			
Cadmium	0.0500			0.0505	mg/L		101	(80%-120%)			
Chromium	0.0500			0.0498	mg/L		99.6	(80%-120%)			
Cobalt	0.0500			0.0496	mg/L		99.2	(80%-120%)			
Lead	0.0500			0.0521	mg/L		104	(80%-120%)			
Lithium	0.0500			0.0532	mg/L		106	(80%-120%)			
Molybdenum	0.0500			0.0509	mg/L		102	(80%-120%)			
Selenium	0.0500			0.0489	mg/L		97.7	(80%-120%)			
Thallium	0.0500			0.0510	mg/L		102	(80%-120%)			
QC1205443725	MB										
Antimony			U	ND	mg/L					07/19/23	00:16

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## QC Summary

Workorder: 627361

Page 2 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Arsenic			U	ND	mg/L				PRB	07/18/23	20:43
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Cadmium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205443727 627361001 MS											
Antimony	0.0500	U	ND	0.0495	mg/L		98.9	(75%-125%)		07/19/23	00:27
Arsenic	0.0500	U	ND	0.0504	mg/L		98.5	(75%-125%)		07/18/23	20:54
Barium	0.0500		0.0586	0.107	mg/L		96.5	(75%-125%)			
Beryllium	0.0500	U	ND	0.0569	mg/L		114	(75%-125%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 627361

Page 3 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Cadmium	0.0500	U	ND	0.0493	mg/L		98.4	(75%-125%)	PRB	07/18/23	20:54
Chromium	0.0500	U	ND	0.0496	mg/L		99	(75%-125%)			
Cobalt	0.0500		0.00258	0.0516	mg/L		98	(75%-125%)			
Lead	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)			
Lithium	0.0500	J	0.00704	0.0611	mg/L		108	(75%-125%)			
Molybdenum	0.0500		0.00276	0.0542	mg/L		103	(75%-125%)			
Selenium	0.0500		0.0262	0.0772	mg/L		102	(75%-125%)			
Thallium	0.0500	U	ND	0.0493	mg/L		98.5	(75%-125%)			
QC1205443728 627361001 MSD											
Antimony	0.0500	U	ND	0.0522	mg/L	5.35	104	(0%-20%)		07/19/23	00:30
Arsenic	0.0500	U	ND	0.0525	mg/L	4.09	103	(0%-20%)		07/18/23	20:57
Barium	0.0500		0.0586	0.109	mg/L	2.27	101	(0%-20%)			
Beryllium	0.0500	U	ND	0.0612	mg/L	7.36	122	(0%-20%)			
Cadmium	0.0500	U	ND	0.0519	mg/L	5.22	104	(0%-20%)			
Chromium	0.0500	U	ND	0.0527	mg/L	5.94	105	(0%-20%)			
Cobalt	0.0500		0.00258	0.0540	mg/L	4.65	103	(0%-20%)			



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 627361

Page 4 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Lead	0.0500	U	ND	0.0519	mg/L	2.97	104	(0%-20%)	PRB	07/18/23	20:57
Lithium	0.0500	J	0.00704	0.0648	mg/L	5.94	116	(0%-20%)			
Molybdenum	0.0500		0.00276	0.0570	mg/L	5.14	109	(0%-20%)			
Selenium	0.0500		0.0262	0.0814	mg/L	5.25	110	(0%-20%)			
Thallium	0.0500	U	ND	0.0504	mg/L	2.31	101	(0%-20%)			
QC1205443729 627361001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		07/19/23	00:37
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		07/18/23	21:04
Barium			58.6	11.6	ug/L	1.38		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			2.58	J	0.526	ug/L	1.9	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lithium		J	7.04	U	ND	ug/L	N/A	(0%-20%)			
Molybdenum			2.76	J	0.532	ug/L	3.69	(0%-20%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 627361

Page 5 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Selenium		26.2	J	4.52	ug/L	13.8		(0%-20%)	PRB	07/18/23	21:04
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2456195										
QC1205453947	627361001	DUP									
Mercury	hHU	ND	hHU	ND	mg/L	N/A			JP2	07/12/23	09:31
QC1205453946	LCS										
Mercury	0.00200			0.00201	mg/L		101	(80%-120%)		07/12/23	09:28
QC1205453945	MB										
Mercury			U	ND	mg/L					07/12/23	09:26
QC1205453948	627361001	MS									
Mercury	0.00200	hHU	ND	hH	0.00199	mg/L	99.6	(75%-125%)		07/12/23	09:33
QC1205453949	627361001	SDILT									
Mercury	hHU	ND	hHU	ND	ug/L	N/A		(0%-10%)		07/12/23	09:34

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 627361

Page 6 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
NI	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 627361**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2450023

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2450022

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I
1205443725	Method Blank (MB)ICP-MS
1205443726	Laboratory Control Sample (LCS)
1205443729	627361001(BRA-PZ-74IL) Serial Dilution (SD)
1205443727	627361001(BRA-PZ-74IS) Matrix Spike (MS)
1205443728	627361001(BRA-PZ-74ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2456195

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2456194

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
627361001	BRA-PZ-74I
1205453945	Method Blank (MB)CVAA
1205453946	Laboratory Control Sample (LCS)
1205453949	627361001(BRA-PZ-74IL) Serial Dilution (SD)
1205453947	627361001(BRA-PZ-74ID) Sample Duplicate (DUP)
1205453948	627361001(BRA-PZ-74IS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Holding Time Specifications**

GEL assigns holding times based on the associated methodology. Holding time is measured by comparison of the date and time of sample collection to the date and time of sample preparation and analysis. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. Samples (See Below) did not meet the specified holding time requirements. Samples were logged in beyond the required holding time.

<b>Sample</b>	<b>Value</b>
1205453947 (BRA-PZ-74IDUP)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23
1205453948 (BRA-PZ-74IMS)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23
1205453949 (BRA-PZ-74ISDILT)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23
627361001 (BRA-PZ-74I)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23

**Radiochemistry**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method: Calculation**

**Analytical Procedure: GL-RAD-D-003 REV# 45**

**Analytical Batch: 2451867**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2451868

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I
1205446623	Method Blank (MB)
1205446624	627278001(NonSDG) Sample Duplicate (DUP)
1205446625	Laboratory Control Sample (LCS)
1205446626	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205446623 (MB)	Radium-228	Result: 2.55 pCi/L > MDA: 2.12 pCi/L <= RDL: 3.00 pCi/L

**Duplication Criteria between LCS and LCSD**

The Laboratory Control Sample and Laboratory Control Sample Duplicate (See Below) do not meet the duplication requirement; however, they both meet the spiked recovery requirement.

Sample	Analyte	Value
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1205446625 (LCS) and 1205446626 (LCSD)	Radium-228	RPD 27.5* (0%-20%)
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**Technical Information**

**Negative > 3 sigma TPU**

Sample result was more negative than the three sigma TPU. The background control chart was examined and the detector was determined to be fully functional.

Sample	Analyte	Value
1205446624 (Non SDG 627278001DUP)	Radium-228	Negative Result > 3 sigma value

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2451862

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I
1205446612	Method Blank (MB)
1205446613	627278001(NonSDG) Sample Duplicate (DUP)
1205446614	627278001(NonSDG) Matrix Spike (MS)
1205446615	Laboratory Control Sample (LCS)
1205446616	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205446613 (Non SDG 627278001DUP)	Radium-226	RPD 200* (0.0%-100.0%) RER 2.44 (0-3)

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date: July 21, 2023**  
**Page 1 of 2**

**Atlanta, Georgia**

**Contact:** Joju Abraham

**Workorder:** 627361

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
<b>Rad Gas Flow</b>									
Batch	2451868								
QC1205446624	627278001 DUP								
Radium-228	U	2.18	U	-2.11	pCi/L	0		N/A JE1	07/15/23 15:12
	Uncert:	+/-1.50		+/-1.21					
	TPU:	+/-1.61		+/-1.21					
QC1205446625	LCS								
Radium-228	79.2			88.5	pCi/L		112 (75%-125%)	JE1	07/15/23 15:13
	Uncert:			+/-5.00					
	TPU:			+/-23.3					
QC1205446626	LCSD								
Radium-228	79.2			67.0	pCi/L	27.5*	84.6 (0%-20%)	JE1	07/15/23 15:13
	Uncert:			+/-4.41					
	TPU:			+/-17.6					
QC1205446623	MB								
Radium-228				2.55	pCi/L			JE1	07/15/23 15:12
	Uncert:			+/-1.41					
	TPU:			+/-1.56					
<b>Rad Ra-226</b>									
Batch	2451862								
QC1205446613	627278001 DUP								
Radium-226	U	0.000		0.644	pCi/L	200*	(0% - 100%)	LXP1	07/20/23 11:19
	Uncert:	+/-0.239		+/-0.445					
	TPU:	+/-0.239		+/-0.459					
QC1205446615	LCS								
Radium-226	26.3			21.2	pCi/L		80.5 (75%-125%)	LXP1	07/20/23 11:19
	Uncert:			+/-1.83					
	TPU:			+/-4.55					
QC1205446616	LCSD								
Radium-226	26.3			23.7	pCi/L	11.2	90.1 (0%-20%)	LXP1	07/20/23 11:19
	Uncert:			+/-1.96					
	TPU:			+/-4.88					
QC1205446612	MB								
Radium-226			U	0.311	pCi/L			LXP1	07/20/23 11:19
	Uncert:			+/-0.338					
	TPU:			+/-0.346					
QC1205446614	627278001 MS								
Radium-226	131	U	0.000	139	pCi/L		106 (75%-125%)	LXP1	07/20/23 11:19
	Uncert:		+/-0.239	+/-10.7					
	TPU:		+/-0.239	+/-27.3					

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

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## QC Summary

Workorder: 627361

Page 2 of 2

Parname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- UI Gamma Spectroscopy--Uncertain identification
- BD Results are either below the MDC or tracer recovery is low
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- M M if above MDC and less than LLD
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- FA Failed analysis.
- UJ Gamma Spectroscopy--Uncertain identification
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- N1 See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- \*\* Analyte is a Tracer compound
- M REMP Result > MDC/CL and < RDL
- J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
**Chain of Custody and Analytical Request**  
**GEL Project Manager: Erin Trent**

**GEL Work Order Number:** \_\_\_\_\_  
**GEL Project Manager:** Erin Trent

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Phone # 404-506-7116  
 Fax # \_\_\_\_\_

**GEL Laboratories, LLC**  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID: \_\_\_\_\_  
 \* For composites - indicate start and stop date/time

Collected By: Ben Feld ACC

Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (5) Yes, please supply isotopic info	(7) Known or possible Hazards	Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Comments
BRA-PZ-741	06/06/23	0940	G	N	WG			C1, F, SO4, TDS, NO3 EPA 300, SM 2540C Total Carb. & Bicarb Alk SM 2320B Metals * EPA 6020, 7470 Sulfide SM 4500 NI	Note: extra sample is required for sample specific QC <b>Task Code: BRA-CCR-ASSMT-2023SI</b> field pH = 5.83 field ferrous iron = 1.5 mg/L	

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. Erin Trent 6/6/23 1539  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

**TAT Requested:** Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

**Additional Remarks:** \* Metals: B,Ca,Se,Fe,Mg,Mn,K,Na,Hg

**For Lab Receiving Use Only: Custody Seal Intact?**  Yes  No **Cooler Temp:** \_\_\_\_\_ °C

**Sample Collection Time Zone:**  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

TSCA Regulated: \_\_\_\_\_  
 PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

ET

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624-832</u>	
Received By: <u>QG</u>		Date Received: <u>6/6/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other	
		<u>mla</u>	
Suspected Hazard Information		Yes	No
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		*If Not Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
		COC notation or radioactive stickers on containers equal client designation.	
		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>	
		COC notation or hazard labels on containers equal client designation.	
		If D or E is yes, select Hazards below: PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:	
Sample Receipt Criteria		Yes	No
Comments/Qualifiers (Required for Non-Conforming Items)			
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)	
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Circle Applicable: Client contacted and provided COC   COC created upon receipt	
3	Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius <b>TEMP: <u>1°C</u></b>	
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Temperature Device Serial #: <u>122-20</u> Secondary Temperature Device Serial # (If Applicable):	
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)	
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Sample ID's and Containers Affected: If Preservation added, Lot#:	
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:	
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		ID's and tests affected:	
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		ID's and containers affected:	
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)	
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Circle Applicable: <u>No container count on COC</u> Other (describe)	
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Circle Applicable: Not relinquished   Other (describe)	
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AS Date 6/7/23 Page 1 of 1

**List of current GEL Certifications as of 21 July 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



July 20, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 628245

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 628245 GEL Work Order: 628245

**The Qualifiers in this report are defined as follows:**

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a Tracer compound

\*\* Analyte is a surrogate compound

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: July 20, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-75I	Project: GPCC00101
Sample ID: 628245001	Client ID: GPCC001
Matrix: WG	
Collect Date: 05-JUL-23 13:45	
Receive Date: 06-JUL-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Sulfate		267	5.32	16.0	mg/L		40	JLD1	07/07/23	0019	2454806	1
Chloride		7.18	0.0670	0.200	mg/L		1	JLD1	07/06/23	2008	2454806	2
Fluoride		0.157	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Boron		1.29	0.0520	0.150	mg/L	1.00	10	PRB	07/08/23	0714	2454727	3
Calcium		48.7	0.0800	0.200	mg/L	1.00	1	PRB	07/08/23	0648	2454727	4
Selenium		0.0732	0.00150	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		487	2.38	10.0	mg/L			CH6	07/07/23	1017	2454985	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	07/06/23	1450	2454726

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: July 20, 2023

Page 1 of 4

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 628245

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2454806										
QC1205451787	628245001	DUP									
Chloride		7.18		7.18	mg/L	0.0125		(0%-20%)	JLD1	07/06/23	21:11
Fluoride		0.157		0.168	mg/L	7.01	^	(+/-0.100)			
Sulfate		267		266	mg/L	0.374		(0%-20%)		07/07/23	00:50
QC1205451786	LCS										
Chloride	5.00			4.88	mg/L			97.6 (90%-110%)		07/06/23	22:45
Fluoride	2.50			2.57	mg/L			103 (90%-110%)			
Sulfate	10.0			9.98	mg/L			99.8 (90%-110%)			
QC1205451785	MB										
Chloride			U	ND	mg/L					07/06/23	22:14
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205451788	628245001	PS									
Chloride	5.00	7.18		14.0	mg/L			137* (90%-110%)		07/06/23	21:42
Fluoride	2.50	0.157		3.26	mg/L			124* (90%-110%)			
Sulfate	10.0	6.67		16.5	mg/L			98.6 (90%-110%)		07/07/23	01:22

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## QC Summary

Workorder: 628245

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2454727										
QC1205451585	LCS										
Boron	0.100			0.115	mg/L		115	(80%-120%)	PRB	07/08/23	06:44
Calcium	2.00			2.13	mg/L		106	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.6	(80%-120%)			
QC1205451584	MB										
Boron			U	ND	mg/L					07/08/23	06:41
Calcium			U	ND	mg/L						
Selenium			U	ND	mg/L						
QC1205451586	628245001	MS									
Boron	0.100	1.29		1.37	mg/L		N/A	(75%-125%)		07/08/23	07:17
Calcium	2.00	48.7		50.7	mg/L		N/A	(75%-125%)		07/08/23	06:52
Selenium	0.0500	0.0732		0.125	mg/L		104	(75%-125%)			
QC1205451587	628245001	MSD									
Boron	0.100	1.29		1.42	mg/L	3.68	N/A	(0%-20%)		07/08/23	07:21
Calcium	2.00	48.7		51.0	mg/L	0.498	N/A	(0%-20%)		07/08/23	06:55
Selenium	0.0500	0.0732		0.129	mg/L	2.76	111	(0%-20%)			
QC1205451588	628245001	SDILT									
Boron		129		26.0	ug/L	.524		(0%-20%)		07/08/23	07:25
Calcium		48700		9730	ug/L	.0124		(0%-20%)		07/08/23	07:02

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 628245

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2454727										
Selenium		73.2		14.7	ug/L	.458		(0%-20%)	PRB	07/08/23	07:02
<b>Solids Analysis</b>											
Batch	2454985										
QC1205451963	628137005	DUP									
Total Dissolved Solids		1400		1440	mg/L	2.82		(0%-5%)	CH6	07/07/23	10:17
QC1205451962	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		07/07/23	10:17
QC1205451961	MB										
Total Dissolved Solids			U	ND	mg/L					07/07/23	10:17

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 628245

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
FB		Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies									
N1		See case narrative									
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.									
R		Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.									
B		The target analyte was detected in the associated blank.									
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
J		See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 628245**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2454727

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2454726

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
628245001	BRA-PZ-75I
1205451584	Method Blank (MB)ICP-MS
1205451585	Laboratory Control Sample (LCS)
1205451588	628245001(BRA-PZ-75IL) Serial Dilution (SD)
1205451586	628245001(BRA-PZ-75IS) Matrix Spike (MS)
1205451587	628245001(BRA-PZ-75ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>628245</b>
	<b>001</b>
Boron	10X

## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 32

**Analytical Batch:** 2454806

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
628245001	BRA-PZ-75I
1205451785	Method Blank (MB)
1205451786	Laboratory Control Sample (LCS)
1205451787	628245001(BRA-PZ-75I) Sample Duplicate (DUP)
1205451788	628245001(BRA-PZ-75I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Chloride	1205451788 (BRA-PZ-75IPS)	137* (90%-110%)
Fluoride	1205451788 (BRA-PZ-75IPS)	124* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205451787 (BRA-PZ-75IDUP), 1205451788 (BRA-PZ-75IPS) and 628245001 (BRA-PZ-75I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>628245</b>
	<b>001</b>
Sulfate	40X

**Miscellaneous Information**

**Manual Integrations**

Samples 1205451787 (BRA-PZ-75IDUP) and 628245001 (BRA-PZ-75I) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 21

**Analytical Batch:** 2454985

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
628245001	BRA-PZ-75I
1205451961	Method Blank (MB)
1205451962	Laboratory Control Sample (LCS)
1205451963	628137005(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205451963 (Non SDG 628137005DUP).

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

628245

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Page: 1 of 1  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

GEL Work Order Number: \_\_\_\_\_

GEL Project Manager: Erin Trent

Client Name: GA Power  
 Phone # 404-506-7116

Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Fax # \_\_\_\_\_

Collected By: D. Soltan ACC

Send Results To: SCS & Geosyntec Contacts

Sample ID: BRA-PZ-751  
 \*Date Collected (mm/dd/yy): 07/05/23  
 \*Time Collected (Military) (hhmm): 1345  
 QC Code (2): G  
 Field Filtered (3): N  
 Sample Matrix (4): WG

Radioactive (if yes, please supply isotopic info.):  
 (7) Known or possible Hazards: 3  
 Total number of containers:  
 Cl, F, SO4, TDS: 2  
 EPA 300, SM 2540C: 1  
 Metals \* EPA 6020: 1  
 field pH = 5.68

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (if yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	Cl, F, SO4, TDS EPA 300, SM 2540C	Metals * EPA 6020	Comments
BRA-PZ-751	07/05/23	1345	G	N	WG		3	2	1		Note: extra sample is required for sample specific QC Task Code: BRA-CGR-ASSMT-2023S1

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
Dennis Gorman	7/10/23	0852	Sharon	7/10/23	8:52
Sharon	7/10/23	1:18	Sharon	7/10/23	1318

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SF=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Hg= Mercury	FL = Flammable/Ignitable	LW = Listed Waste (F, K, P and U-listed wastes.)	OT = Other / Unknown (i.e.: High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)	Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected, from, odd matrices, etc.)
As = Arsenic	Hg= Mercury	CO = Corrosive	Waste code(s):		
Ba = Barium	Se = Selenium	RB = Reactive			
Cd = Cadmium	Ag= Silver				
Cr = Chromium	Misc. RCR metals				
Pb = Lead					

TSCA Regulated biphenyls

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other: \_\_\_\_\_

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: \_\_\_\_\_ °C

TAT Requested: selenium data due 7/10/2023; standard TAT for final report



**SAMPLE RECEIPT & REVIEW FORM**

Client: GPCC  
 Received By: SNS  
 Carrier and Tracking Number

SDG/AR/COC/Work Order: 628245  
 Date Received: 7/16/23  
 Circle Applicable: Field Services Courier Other  
 FedEx Express FedEx Ground UPS

Suspected Hazard Information

\*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?  Yes  No  
 Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples are to be received as radioactive?  Yes  No  
 COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?  Yes  No  
 Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 00 CPM/mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous?  Yes  No  
 COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?  Yes  No  
 If D or E is yes, select Hazards below.  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: <u>TEMP: 2°C</u> *all temperatures are recorded in Celsius
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and containers affected: ID's and tests affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Comments (Use Continuation Form if needed):

**List of current GEL Certifications as of 20 July 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



July 21, 2023

Kelley Sharpe  
ARCADIS - Atlanta  
2839 Paces Ferry Rd  
STE 900  
Atlanta, GA 30339

RE: Project: Plant Branch-CCR Ash Pond  
Pace Project No.: 92677498

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2023. 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 - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Maiya Parks  
maiya.parks@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Jordan Gamble, ARCADIS - Atlanta  
Ben Hodges, Georgia Power-CCR  
Warren Johnson, ARCADIS - Atlanta  
Laura Midkiff, Georgia Power  
Noelia Muskus Ruiz, Georgia Power  
Tina Sullivan, ERM



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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### **Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Plant Branch-CCR Ash Pond  
Pace Project No.: 92677498

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92677498001	BRA-LS+3(surface)	Water	07/14/23 10:19	07/14/23 14:21
92677498002	BRA-LS+3A(surface)	Water	07/14/23 10:26	07/14/23 14:21
92677498003	BRA-LS+3(mid)	Water	07/14/23 10:23	07/14/23 14:21

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92677498001	BRA-LS+3(surface)	EPA 6010D	MS	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 9056A	JCM	3	PASI-A
92677498002	BRA-LS+3A(surface)	EPA 6010D	MS	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 9056A	JCM	3	PASI-A
92677498003	BRA-LS+3(mid)	EPA 6010D	MS	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	YEG	2	PASI-A
		EPA 9056A	JCM	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

Sample: BRA-LS+3(surface)	Lab ID: 92677498001	Collected: 07/14/23 10:19	Received: 07/14/23 14:21	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.5	mg/L	0.50	1	07/19/23 14:47	07/20/23 14:46	7440-09-7	
Sodium	5.4	mg/L	1.0	1	07/19/23 14:47	07/20/23 14:46	7440-23-5	
Calcium	5.8	mg/L	1.0	1	07/19/23 14:47	07/20/23 14:46	7440-70-2	
Magnesium	3.1	mg/L	0.050	1	07/19/23 14:47	07/20/23 14:46	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	07/15/23 09:15	07/18/23 09:45	7440-42-8	
Selenium	ND	mg/L	0.0050	1	07/15/23 09:15	07/17/23 20:26	7782-49-2	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	58.0	mg/L	25.0	1		07/17/23 12:46		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.3	mg/L	5.0	1		07/17/23 15:15		
Alkalinity, Total as CaCO <sub>3</sub>	32.3	mg/L	5.0	1		07/17/23 15:15		
<b>9056 IC anions 28 Days</b>								
Analytical Method: EPA 9056A								
Pace Analytical Services - Asheville								
Chloride	3.4	mg/L	1.0	1		07/15/23 21:10	16887-00-6	
Fluoride	ND	mg/L	0.10	1		07/15/23 21:10	16984-48-8	
Sulfate	4.0	mg/L	1.0	1		07/15/23 21:10	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

Sample: BRA-LS+3A(surface)		Lab ID: 92677498002	Collected: 07/14/23 10:26	Received: 07/14/23 14:21	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA						
Potassium	2.5	mg/L	0.50	1	07/19/23 14:47	07/20/23 15:15	7440-09-7	
Sodium	5.5	mg/L	1.0	1	07/19/23 14:47	07/20/23 15:15	7440-23-5	
Calcium	5.9	mg/L	1.0	1	07/19/23 14:47	07/20/23 15:15	7440-70-2	
Magnesium	3.2	mg/L	0.050	1	07/19/23 14:47	07/20/23 15:15	7439-95-4	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Boron	ND	mg/L	0.040	1	07/15/23 09:15	07/18/23 09:49	7440-42-8	
Selenium	ND	mg/L	0.0050	1	07/15/23 09:15	07/17/23 20:32	7782-49-2	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	58.0	mg/L	25.0	1		07/17/23 12:46		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity,Bicarbonate (CaCO3)	32.8	mg/L	5.0	1		07/17/23 15:21		
Alkalinity, Total as CaCO3	32.8	mg/L	5.0	1		07/17/23 15:21		
<b>9056 IC anions 28 Days</b>		Analytical Method: EPA 9056A Pace Analytical Services - Asheville						
Chloride	3.3	mg/L	1.0	1		07/15/23 22:25	16887-00-6	
Fluoride	ND	mg/L	0.10	1		07/15/23 22:25	16984-48-8	
Sulfate	4.1	mg/L	1.0	1		07/15/23 22:25	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch-CCR Ash Pond  
 Pace Project No.: 92677498

Sample: BRA-LS+3(mid)	Lab ID: 92677498003	Collected: 07/14/23 10:23	Received: 07/14/23 14:21	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>								
Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Pace Analytical Services - Peachtree Corners, GA								
Potassium	2.1	mg/L	0.50	1	07/19/23 14:47	07/20/23 15:20	7440-09-7	
Sodium	4.9	mg/L	1.0	1	07/19/23 14:47	07/20/23 15:20	7440-23-5	
Calcium	5.2	mg/L	1.0	1	07/19/23 14:47	07/20/23 15:20	7440-70-2	
Magnesium	2.8	mg/L	0.050	1	07/19/23 14:47	07/20/23 15:20	7439-95-4	
<b>6020 MET ICPMS</b>								
Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.040	1	07/15/23 09:15	07/18/23 09:53	7440-42-8	
Selenium	ND	mg/L	0.0050	1	07/15/23 09:15	07/17/23 20:38	7782-49-2	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2015								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	58.0	mg/L	25.0	1		07/17/23 12:47		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.3	mg/L	5.0	1		07/17/23 15:27		
Alkalinity, Total as CaCO <sub>3</sub>	32.3	mg/L	5.0	1		07/17/23 15:27		
<b>9056 IC anions 28 Days</b>								
Analytical Method: EPA 9056A								
Pace Analytical Services - Asheville								
Chloride	3.3	mg/L	1.0	1		07/15/23 22:40	16887-00-6	
Fluoride	ND	mg/L	0.10	1		07/15/23 22:40	16984-48-8	
Sulfate	3.6	mg/L	1.0	1		07/15/23 22:40	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

QC Batch:	787804	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92677498001, 92677498002, 92677498003

METHOD BLANK: 4084117 Matrix: Water

Associated Lab Samples: 92677498001, 92677498002, 92677498003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	07/20/23 14:31	
Magnesium	mg/L	ND	0.050	07/20/23 14:31	
Potassium	mg/L	ND	0.50	07/20/23 14:31	
Sodium	mg/L	ND	1.0	07/20/23 14:31	

LABORATORY CONTROL SAMPLE: 4084118

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	.99J	99	80-120	
Magnesium	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	1.0	103	80-120	
Sodium	mg/L	1	.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4084190 4084191

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92677498001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	5.8	1	1	6.7	6.8	92	98	75-125	1	20
Magnesium	mg/L	3.1	1	1	4.1	4.2	104	109	75-125	1	20
Potassium	mg/L	2.5	1	1	3.4	3.5	93	109	75-125	5	20
Sodium	mg/L	5.4	1	1	6.4	6.4	97	101	75-125	1	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

QC Batch:	787005	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92677498001, 92677498002, 92677498003

METHOD BLANK: 4080335 Matrix: Water  
 Associated Lab Samples: 92677498001, 92677498002, 92677498003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	07/18/23 09:38	
Selenium	mg/L	ND	0.0050	07/17/23 18:03	

LABORATORY CONTROL SAMPLE: 4080336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	105	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4080337 4080338

Parameter	Units	92677520001		4080338		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Boron	mg/L	ND	1	1	0.87	0.88	86	87	75-125	1	20
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	1	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

QC Batch:	787238	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92677498001, 92677498002, 92677498003

METHOD BLANK: 4081190 Matrix: Water

Associated Lab Samples: 92677498001, 92677498002, 92677498003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	07/17/23 12:43	

LABORATORY CONTROL SAMPLE: 4081191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	402	100	80-120	

SAMPLE DUPLICATE: 4081192

Parameter	Units	92677313001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1300	1290	1	10	

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**QUALITY CONTROL DATA**

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

QC Batch: 787194 Analysis Method: SM 2320B-2011  
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92677498001, 92677498002, 92677498003

METHOD BLANK: 4080786 Matrix: Water  
 Associated Lab Samples: 92677498001, 92677498002, 92677498003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	07/17/23 11:40	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	07/17/23 11:40	

LABORATORY CONTROL SAMPLE: 4080787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.9	104	80-120	

LABORATORY CONTROL SAMPLE: 4080788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.5	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4080789 4080790

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.								
Alkalinity, Total as CaCO3	mg/L	74.9	50	50	50	127	126	104	101	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4080791 4080792

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.								
Alkalinity, Total as CaCO3	mg/L	ND	50	50	50	52.5	53.0	102	102	80-120	1	25	

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**QUALITY CONTROL DATA**

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

QC Batch: 786999	Analysis Method: EPA 9056A
QC Batch Method: EPA 9056A	Analysis Description: 9056 IC anions 28 Days
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92677498001, 92677498002, 92677498003

METHOD BLANK: 4080309 Matrix: Water

Associated Lab Samples: 92677498001, 92677498002, 92677498003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	07/15/23 20:41	
Fluoride	mg/L	ND	0.10	07/15/23 20:41	
Sulfate	mg/L	ND	1.0	07/15/23 20:41	

LABORATORY CONTROL SAMPLE: 4080310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.6	105	90-110	
Sulfate	mg/L	50	49.0	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4080311 4080312

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92677498001 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	3.4	50	50	54.3	54.5	102	102	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	104	107	90-110	2	10		
Sulfate	mg/L	4.0	50	50	53.9	54.0	100	100	90-110	0	10		

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## QUALIFIERS

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

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### 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Branch-CCR Ash Pond

Pace Project No.: 92677498

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92677498001	BRA-LS+3(surface)	EPA 3010A	787804	EPA 6010D	787850
92677498002	BRA-LS+3A(surface)	EPA 3010A	787804	EPA 6010D	787850
92677498003	BRA-LS+3(mid)	EPA 3010A	787804	EPA 6010D	787850
92677498001	BRA-LS+3(surface)	EPA 3005A	787005	EPA 6020B	787040
92677498002	BRA-LS+3A(surface)	EPA 3005A	787005	EPA 6020B	787040
92677498003	BRA-LS+3(mid)	EPA 3005A	787005	EPA 6020B	787040
92677498001	BRA-LS+3(surface)	SM 2540C-2015	787238		
92677498002	BRA-LS+3A(surface)	SM 2540C-2015	787238		
92677498003	BRA-LS+3(mid)	SM 2540C-2015	787238		
92677498001	BRA-LS+3(surface)	SM 2320B-2011	787194		
92677498002	BRA-LS+3A(surface)	SM 2320B-2011	787194		
92677498003	BRA-LS+3(mid)	SM 2320B-2011	787194		
92677498001	BRA-LS+3(surface)	EPA 9056A	786999		
92677498002	BRA-LS+3A(surface)	EPA 9056A	786999		
92677498003	BRA-LS+3(mid)	EPA 9056A	786999		

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com/hubs/pass-standard-terms.pdf>

### 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:  
Company: ARCADIS - Atlanta  
Address: 2839 Paces Ferry Rd SE  
Atlanta, GA 30339  
Email: [warren.johnson@pacelabs.com](mailto:warren.johnson@pacelabs.com)  
Phone: (878) 485-6296  
Requested Due Date: **5 Day TAT**

Section B  
Required Project Information:  
Report To: Warren Johnson  
Copy To:  
Purchase Order #:  
Project Name: Plant Branch/CGR-Asst Pond Closure  
Project #:

Section C  
Invoice Information:  
Attention:  
Company Name  
Address:  
Pace Quote:  
Pace Project Manager: [mj@pacelabs.com](mailto:mj@pacelabs.com)  
Pace Profile #: 12769

Regulatory Agency  
State / Location  
GA

ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
					START	END			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3				
1	BRA-LS+3 (surface)	WT	WT		7/14/23	1019												
2	BRA-LS+3A (surface)	WT	WT		7/14/23	1026												
3	BRA-LS+3 (mid)	WT	WT		7/14/23	1023												
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS

REMOVED BY / AFFILIATION: *ARCADIS* DATE: 7/14/23 TIME: 1414

ACCEPTED BY / AFFILIATION: *NTW* DATE: 7/14/23 TIME: 1421

TEMP in C

Received on Ice (Y/N)

Custody Sealed Cooler (Y/N)

Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE: *Garrett G*

PRINT Name of SAMPLER: *Garrett G*

SIGNATURE of SAMPLER: *Garrett G*

DATE Signed: 7-14-23

WO#: 92677498

92677498



DC#\_Title: ENV-FRM-HUN1-0083 v02\_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Arcadis

Prc

WO#: 92677498

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other:

PM: IP Due Date: 07/24/23 CLIENT: GA-ArcadAt1

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 11/14/23 / 201

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:

IR Gun ID: 083

Type of Ice:  Wet  Blue  None

Cooler Temp: 2.0 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C  Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.1

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	W		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCURF Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_ Date: \_\_\_\_\_



Effective Date: 11/14/2022

WO#: 92677498

PM: MIP

Due Date: 07/24/23

CLIENT: GA-ArcadAtI

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

\*\*Bottom half of box is to list number of bottles

\*\*\*Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1			2																										
2			2																										
3			2																										
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5																													
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11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

# VALIDATION REPORTS

Fall 2022

## Memorandum

Date: 31 October 2022  
To: Max Cange  
From: Ashley Wilson  
CC: J. Caprio  
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 590838, 590845, 590855, 590857, 591351, 591355, 591881 and 591887**

**SITE: Plant Branch CCR Groundwater Compliance AP-BCD and AP-E**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of forty groundwater samples, four equipment blanks, four field blanks and four field duplicate samples, collected 23-25 August 2022, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by US EPA Method 7470A
- Anions (Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Alkalinity by SM 2320B

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment, and the following documents:

US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and

the USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and reported in the laboratory reports:

Laboratory IDs	Client IDs
590838001	BRGWA-2S
590838002	BRGWA-2I
590838003	BRGWA-5S
590838004	BRGWA-5I
590838005	BRGWA-6S
590845001	BRGWA-23S
590845002	BRGWC-47
590845003	EB-05
590855001	BRGWA-12I
590855002	FB-01
590855003	BRGWA-12S
590855004	BRGWC-25I
590857001	BRGWC-33S
590857002	BRGWC-37S
590857003	BRGWC-38S
590857004	PZ-53D
590857005	PZ-13S
590857006	FB-04
591351001	BRGWC-17S
591351002	BRGWC-35S
591351003	BRGWC-36S
591351004	FD-04
591351005	BRGWC-34S
591351006	EB-08
591355001	FD-01
591355002	PZ-58I

Laboratory IDs	Client IDs
591355003	PZ-60I
591355004	FB-02
591355005	BRGWC-29I
591355006	BRGWC-30I
591355007	BRGWC-50
591355008	FD-03
591355009	BRGWC-45
591355010	PZ-44
591355011	PZ-51I
591355012	PZ-51D
591355013	PZ-61I
591355014	PZ-51S
591355015	FD-02
591355016	PZ-50D
591355017	EB-06
591355018	PZ-62I
591355019	PZ-59I
591355020	BRGWC-27I
591355021	FB-03
591355022	PZ-63I
591355023	PZ-57I
591355024	BRGWC-32S
591355025	EB-07
591355026	BRGWC-52I
591881001	PZ-70
591887001	PZ-52D

The samples were received at 1.0, 2.0 and 5.0 degrees Celsius (°C), both within and outside of the EPA Region 4 criteria of 4°C ± 2°C. Since the samples were received between 0-6°C and based on professional judgment, no qualifications were applied to the data. No sample preservation issues were noted by the laboratory.

The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, FD-01, FD-02, FD-03 and FD-04. The laboratory logged the samples in with the collection time of 12:00.

591355 and 590855: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

590838 and 590845: The year was not documented on the COC for the relinquished by date for the second sample transfer.

591881 and 591887: The relinquished by signature, date and time and the received by time for the second sample transfer were not documented on the COC.

The field pH data included in the laboratory report were not validated.

## 1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B. Mercury was evaluated separately in Section 2.0, below.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ⊗ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ⊗ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

### 1.1 Overall Assessment

The metals data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.



## 1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met.

## 1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches 2308385, 2310153, 2310155 and 2312380). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exception.

591881: Molybdenum was detected in the method blank in batch 2312380 at an estimated concentration greater than the MDL and less than the reporting limit (RL). Therefore, the molybdenum concentration in sample PZ-70 was J+ qualified as estimated with a high bias.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-70	Molybdenum	0.00142	NA	0.00142	J+	3

mg/L- milligram per liter

NA-not applicable

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\*Reason codes are defined in Attachment 2 at the end of this report

## 1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four sample set specific MS/MSD pairs were reported, using samples BRGWA-2S, PZ-51D, PZ-70 and BRGWC-17S. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exception.

590838: The magnesium recovery in the MS using sample BRGWA-2S was high and outside the laboratory specified acceptance criteria and the magnesium recovery in the post digestion spike (PDS) was within the laboratory specified acceptance criteria. Therefore, the magnesium concentration in sample BRGWA-2S was J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2S	Magnesium	4.86	NA	4.86	J	4

mg/L- milligram per liter

NA-not applicable

### 1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### 1.6 Field Blank

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. Metals were not detected in the field blanks above the MDLs, with the following exceptions.

Sodium (0.565 mg/L) and calcium (0.25 mg/L) were detected in FB-01 at concentrations greater than the RLs and magnesium was detected in FB-01 at an estimated concentration greater than the MDL and less than the RL. Iron was detected in FB-04 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated magnesium and iron concentrations in the associated samples were U qualified as not detected at the RLs and based on professional and technical judgment the iron concentrations in samples BRGWA-23S, BRGWC-47 and BRGWC-25I, and sodium and calcium concentrations in the associated samples greater than the RLs and less than ten times the field blank concentration were J+ qualified as estimated with high biases.

Manganese (0.00513 mg/L) was detected in FB-03 at a concentration greater than the RL and sodium and boron were detected in FB-03 at estimated concentrations greater than the MDLs and less than the RLs. Based on the concentration of sodium in the associated samples and professional and technical judgment, no qualifications were applied to the sodium data. However, the estimated manganese concentration in the associated samples were U qualified as not detected at the RL, based on professional and technical judgment the boron concentration in samples EB-07, EB-06 and BRGWC-32S and the manganese concentrations greater than the RLs and less than the times the RLs were J+ qualified as estimated with high biases.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2I	Iron	0.183	NA	0.183	J+	3
BRGWA-2S	Iron	0.0763	J	0.100	U	3
BRGWA-2S	Sodium	3.36	NA	3.36	J+	3
BRGWA-5I	Sodium	4.93	NA	4.93	J+	3
BRGWA-5S	Iron	0.151	NA	0.151	J+	3
BRGWA-5S	Sodium	4.03	NA	4.03	J+	3
BRGWA-6S	Iron	0.0701	J	0.100	U	3
BRGWA-6S	Sodium	2.44	NA	2.44	J+	3
EB-05	Sodium	0.703	NA	0.703	J+	3

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
EB-05	Magnesium	0.0152	J	0.0300	U	3
EB-05	Calcium	0.313	NA	0.313	J+	3
BRGWA-23S	Iron	0.114	NA	0.114	J+	3
BRGWC-47	Iron	0.101	NA	0.101	J+	3
BRGWA-12S	Sodium	5.41	NA	5.41	J+	3
BRGWC-25I	Iron	0.193	NA	0.193	J+	3
BRGWC-33S	Iron	0.0381	J	0.100	U	3
BRGWC-37S	Sodium	4.51	NA	4.51	J+	3
EB-06	Manganese	0.00523	NA	0.00523	J+	3
EB-07	Manganese	0.00387	J	0.00500	U	3
EB-07	Boron	0.0159	NA	0.0159	J+	3
BRGWC-32S	Manganese	0.0107	NA	0.0107	J+	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

### 1.7 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. Metals were not detected in the equipment blanks above the MDLs, with the following exceptions.

Barium and magnesium were detected in EB-05 at estimated concentrations greater than the MDLs and less than the RLs and sodium (0.703 mg/L) and calcium (0.313 mg/L) were detected in EB-05 at concentrations greater than the RLs. Since the magnesium concentration in EB-05 was U qualified due to field blank contamination and based on the barium concentrations in the associated samples and professional and technical judgment, no additional qualifications were applied to the barium and magnesium data. Also, based on professional and technical judgment, no additional qualifications were applied to the sodium concentrations in the associated samples that were qualified based on field blank contamination. In addition, since the calcium concentrations in the associated samples were greater than ten times the equipment blank concentration, no qualifications were applied to the calcium data. However, the sodium concentration in sample BRGWA-2I was J+ qualified as estimated with high bias.

Manganese was detected in EB-08 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated manganese concentration in the associated sample was U qualified as not detected at the RL.

Manganese (0.00523 mg/L) was detected in EB-06 at a concentration greater than the RL. Manganese was detected in EB-07 at an estimated concentration greater than the MDL and less

than the RL and boron (0.0159 mg/L) was detected in EB-07 at a concentration greater than the RL. Since the associated manganese and boron results were qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2I	Sodium	5.73	NA	5.73	J+	3
BRGWC-36S	Manganese	0.00295	J	0.00500	U	3
FD-04	Manganese	0.00286	J	0.00500	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

### 1.8 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision ( $RPD \leq 20\%$  or the difference between the concentrations  $< RL$ ) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively.

### 1.9 Serial Dilution

Two sample set specific serial dilutions were reported for metals using samples PZ-70, BRGWC-17S, BRGWC-33S, BRGWA-2S and PZ-51D. The percent difference (%D) results were within the method specified acceptance criteria, with the following exception.

590838: The %D of magnesium in the serial dilution using sample BRGWA-2S was greater than 10% and the sample concentration was greater than 50 times the MDL. Therefore, the magnesium concentration in sample BRGWA-2S was J qualified as estimated.

Two batch serial dilutions were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2S	Magnesium	4.86	NA	4.86	J	8

mg/L- milligram per liter

NA-not applicable

### **1.10 Sensitivity**

The samples were reported to the MDLs. Elevated non-detect results were not reported.

### **1.11 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

## **2.0 MERCURY**

The samples were analyzed for mercury by US EPA Method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ⊗ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### **2.1 Overall Assessment**

The mercury data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

**2.2 Holding Time**

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met.

**2.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches 2308549, 2308555, 2310246, 2310248 and 2312733). Mercury was not detected in the method blanks above the MDL.

**2.4 Matrix Spike**

MSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS was reported using sample PZ-58I.

591355: The mercury recovery in the MS was low and outside laboratory specified acceptance criteria and the recovery of mercury in the PDS was also low and outside of laboratory specified acceptance criteria. Therefore, the mercury result in sample PZ-58I was UJ qualified as estimated below the RL.

Four batch MSs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-58I	Mercury	0.000067	U	0.000067	UJ	4

mg/L- milligram per liter

U-not detected at or above the MDL

**2.5 Laboratory Control Sample**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

**2.6 Laboratory Duplicate**

One sample set specific MS was reported using sample PZ-58I. The RPD result was within the laboratory specified acceptance criteria.

Four batch laboratory duplicates were reported for mercury. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### **2.7 Field Blank**

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. Mercury was not detected in the field blanks above the MDL.

### **2.8 Equipment Blank**

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. Mercury was not detected in the equipment blanks above the MDL.

### **2.9 Field Duplicate**

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision (RPD < 20% or the difference between the concentrations < RL) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively.

### **2.10 Serial Dilution**

One sample set specific serial dilution was performed on sample PZ-58I. The %D results were within the method specified acceptance criteria. Four batch serial dilutions were also reported for mercury. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### **2.11 Sensitivity**

The samples were reported to the MDL. Elevated non-detect results were not reported.

### **2.12 Electronic Data Deliverable Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

## **3.0 WET CHEMISTRY**

The samples were analyzed for anions by US EPA method 300.0, TDS by SM 2540C and alkalinity by SM 2320B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

### **3.1 Overall Assessment**

The wet chemistry data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### **3.2 Holding Times**

The holding time for the anion (fluoride, chloride, sulfate) analyses of a water sample are 28 days from sample collection to analysis. The holding time for the TDS analysis of a water sample is 7 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met.



### 3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported for anions (batches 2310523, 2310658, 2310688, 2308691 and 2312366). Six method blanks were reported for TDS (batches 2308573, 2309029, 2309058, 2310249, 2313724 and 2310760). The wet chemistry parameters were not detected in the method blanks above the MDLs.

### 3.4 Matrix Spike

Six sample set specific MSs were reported for anions, using samples BRGWA-2S, BRGWC-17S, BRGWC-29I, FD-02, BRGWC-52I, and BRGWC-33S. Six sample set specific MSs were reported for total alkalinity, using samples BRGWA-2S, BRGWC-17S, BRGWC-52I, PZ-51D and FD-03, BRGWC-33S. The recovery results were within the laboratory specified acceptance criteria, with the following exceptions

590838: The recovery of sulfate in the MS using sample BRGWA-2S was high and outside the laboratory specified acceptance criteria. Therefore, the sulfate concentration in sample BRGWA-2S was J+ qualified as estimated with a high bias.

591355: The recoveries of chloride in the MSs using samples BRGWC-29I, FD-02 and BRGWC-52I were high and outside the laboratory specified acceptance criteria. Therefore, the chloride concentrations in samples BRGWC-29I, FD-02 and BRGWC-52I were J+ qualified as estimated with high biases.

Batch MSs were also reported for alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-2S	Sulfate	0.452	NA	0.452	J+	4
BRGWC-29I	Chloride	5.84	NA	5.84	J+	4
BRGWC-52I	Chloride	6.27	NA	6.27	J+	4
FD-02	Chloride	4.20	NA	4.20	J+	4

mg/L- milligram per liter

NA-not applicable

### 3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

### **3.6 Laboratory Duplicate**

Six sample set specific laboratory duplicates were reported for anions, using samples BRGWA-2S, BRGWC-29I, FD-02, BRGWC-17S, BRGWC-33S and BRGWC-52I. Six sample set specific laboratory duplicates were reported for alkalinity, using samples BRGWA-2S, PZ-51D, FD-03, BRGWC-52I, BRGWC-17S and BRGWC-33S. Three sample set specific laboratory duplicates were reported for TDS using samples BRGWC-50, BRGWC-32S and BRGWC-33S.

Batch laboratory duplicates were reported for TDS, alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data. The RPD results were within the laboratory specified acceptance criteria.

### **3.7 Field Blank**

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. The wet chemistry parameters were not detected in the field blanks above the MDLs with the following exceptions.

Chloride was detected in FB-01 at an estimated concentration greater than the MDL and less than the RL and alkalinity (31.0 mg/L) was detected in FB-01 at a concentration greater than the RL. Chloride (0.329 mg/L) and alkalinity (33.2 mg/L) were detected in FB-04 at concentrations greater than the RLs. Therefore, the estimated total alkalinity and bicarbonate alkalinity concentrations in the associated sample were U qualified as not detected at the RLs, the total alkalinity and bicarbonate alkalinity concentrations in the associated samples greater than the RLs and less than the field blank concentrations were U qualified as not detected at the reported concentrations and the chloride, total alkalinity and bicarbonate alkalinity concentrations in the associated samples greater than the RLs and less than ten times the RLs were J+ qualified as estimated with high biases.

Chloride (0.207 mg/L) was detected in FB-02 at a concentration greater than the RL and alkalinity was detected in FB-02 at an estimated concentration greater than the MDL and less than the RL. Since the chloride concentrations in the associated samples were greater than ten times the field blank concentration, no qualifications were applied to the chloride data. However, the estimated total alkalinity and bicarbonate alkalinity concentrations in the associated sample were U qualified as not detected at the RL.

Fluoride and alkalinity were detected in FB-03 at estimated concentrations greater than the MDLs and less than the RLs. Therefore, the estimated chloride, total alkalinity and bicarbonate alkalinity concentrations in the associated samples were U qualified as not detected at the RLs and based on professional and technical judgment the fluoride concentrations in samples BRGWC-27I,

BRGWC-32S, BRGWC-45, BRGWC-52I, FD-03, PZ-44, PZ-50D, PZ-57I and PZ-63I were J+ qualified as estimated with high biases.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWA-23S	Chloride	3.16	NA	3.16	J+	3
BRGWC-37S	Chloride	1.97	NA	1.97	J+	3
EB-07	Fluoride	0.0758	J	0.100	U	3
BRGWC-27I	Fluoride	0.234	NA	0.234	J+	3
BRGWC-32S	Fluoride	0.138	NA	0.138	J+	3
BRGWC-45	Fluoride	0.166	NA	0.166	J+	3
RGWC-52I	Fluoride	0.157	NA	0.157	J+	3
FD-03	Fluoride	0.163	NA	0.163	J+	3
PZ-44	Fluoride	0.184	NA	0.184	J+	3
PZ-50D	Fluoride	0.106	NA	0.106	J+	3
PZ-57I	Fluoride	0.235	NA	0.235	J+	3
PZ-63I	Fluoride	0.235	NA	0.235	J+	3
EB-05	Alkalinity, Total as CaCO <sub>3</sub>	20.6	NA	20.6	U	3
EB-05	Bicarbonate alkalinity (CaCO <sub>3</sub> )	20.6	NA	20.6	U	3
BRGWA-2I	Bicarbonate alkalinity (CaCO <sub>3</sub> )	62.4	NA	62.4	J+	3
BRGWA-2I	Alkalinity, Total as CaCO <sub>3</sub>	62.4	NA	62.4	J+	3
BRGWA-2S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	32.6	NA	32.6	J+	3
BRGWA-2S	Alkalinity, Total as CaCO <sub>3</sub>	32.6	NA	32.6	J+	3
BRGWA-5I	Bicarbonate alkalinity (CaCO <sub>3</sub> )	72.8	NA	72.8	J+	3
BRGWA-5I	Alkalinity, Total as CaCO <sub>3</sub>	72.8	NA	72.8	J+	3
BRGWA-5S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	73.8	NA	73.8	J+	3
BRGWA-5S	Alkalinity, Total as CaCO <sub>3</sub>	73.8	NA	73.8	J+	3
BRGWA-6S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	58.2	NA	58.2	J+	3
BRGWA-6S	Alkalinity, Total as CaCO <sub>3</sub>	58.2	NA	58.2	J+	3
BRGWA-23S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	30.4	NA	30.4	U	3
BRGWA-23S	Alkalinity, Total as CaCO <sub>3</sub>	30.4	NA	30.4	U	3

Plant Branch Data Validation

31 October 2022

Page 15

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BRGWC-47	Bicarbonate alkalinity (CaCO <sub>3</sub> )	28.4	NA	28.4	U	3
BRGWC-47	Alkalinity, Total as CaCO <sub>3</sub>	28.4	NA	28.4	U	3
BRGWA-12I	Bicarbonate alkalinity (CaCO <sub>3</sub> )	65.8	NA	65.8	J+	3
BRGWA-12I	Alkalinity, Total as CaCO <sub>3</sub>	65.8	NA	65.8	J+	3
BRGWA-12S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	32.0	NA	32.0	U	3
BRGWA-12S	Alkalinity, Total as CaCO <sub>3</sub>	32.0	NA	32.0	U	3
BRGWC-25I	Bicarbonate alkalinity (CaCO <sub>3</sub> )	75.6	NA	75.6	J+	3
BRGWC-25I	Alkalinity, Total as CaCO <sub>3</sub>	75.6	NA	75.6	J+	3
BRGWC-33S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	3.40	J	4.00	U	3
BRGWC-33S	Alkalinity, Total as CaCO <sub>3</sub>	3.40	J	4.00	U	3
BRGWC-37S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	21.2	NA	21.2	U	3
BRGWC-37S	Alkalinity, Total as CaCO <sub>3</sub>	21.2	NA	21.2	U	3
PZ-13S	Bicarbonate alkalinity (CaCO <sub>3</sub> )	21.4	NA	21.4	U	3
PZ-13S	Alkalinity, Total as CaCO <sub>3</sub>	21.4	NA	21.4	U	3
PZ-53D	Bicarbonate alkalinity (CaCO <sub>3</sub> )	82.8	NA	82.8	J+	3
PZ-53D	Alkalinity, Total as CaCO <sub>3</sub>	82.8	NA	82.8	J+	3
EB-08	Bicarbonate alkalinity (CaCO <sub>3</sub> )	2.40	J	4.00	U	3
EB-08	Alkalinity, Total as CaCO <sub>3</sub>	2.40	J	4.00	U	3
EB-06	Bicarbonate alkalinity (CaCO <sub>3</sub> )	3.00	J	4.00	U	3
EB-06	Alkalinity, Total as CaCO <sub>3</sub>	3.00	J	4.00	U	3
EB-07	Bicarbonate alkalinity (CaCO <sub>3</sub> )	2.80	J	4.00	U	3
EB-07	Alkalinity, Total as CaCO <sub>3</sub>	2.80	J	4.00	U	3
PZ-60I	Bicarbonate alkalinity (CaCO <sub>3</sub> )	2.00	J	4.00	U	3

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-60I	Alkalinity, Total as CaCO <sub>3</sub>	2.00	J	4.00	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

### 3.8 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. The wet chemistry parameters were not detected in the equipment blanks above the MDLs, with the following exceptions.

Chloride was detected in EB-05 at an estimated concentration greater than the MDL and less than the RL and alkalinity (20.6 mg/L) was detected in EB-05 at a concentration greater than the RL. Since the chloride and alkalinity concentrations in EB-05 were U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Fluoride and alkalinity were detected in EB-08 at estimated concentrations greater than the MDLs and less than the RLs. Since the alkalinity concentration in EB-08 was U qualified due to field blank contamination and based on the fluoride concentrations in the associated samples and professional and technical judgment, no additional qualifications were applied to the data.

Alkalinity was detected in EB-06 at an estimated concentration greater than the MDL and less than the RL. Fluoride and alkalinity were detected in EB-07 at estimated concentrations greater than the MDLs and less than the RLs. Since the alkalinity concentrations in EB-06 and EB-07 and fluoride concentration in EB-07 were U qualified due to field blank contamination and the fluoride concentrations in the associated samples were qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

### 3.9 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision (RPD < 20% or the difference between the concentrations < RL) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively.

### **3.10 Sensitivity**

The samples were reported to the MDLs. Elevated non-detect results were not reported.

### **3.11 Electronic Data Deliverable Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

**DATA VALIDATION QUALIFIER DEFINITIONS  
AND INTERPRETATION KEY**

**Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec’s Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference



## Memorandum

Date: November 7, 2022  
To: Adria Reimer  
From: Kristoffer Henderson  
CC: J. Caprio  
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 590840, 590851, 590856, 590859, 591353 and 591358**

**SITE: Plant Branch CCR Groundwater Compliance Upgradient, APBCD and AP-E**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of thirty-eight groundwater samples, four equipment blanks, four field blanks and four field duplicate samples, collected 23-25 August 2022 and 1 September 2022, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Radium-226 by Modified United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by Modified US EPA Method 9320
- Total Radium by Calculation

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- American Nuclear Society Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation (ANSI/ANS-41.5-2012), February 15, 2012.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
590840001	BRGWA-2S
590840002	BRGWA-2I
590840003	BRGWA-5S
590840004	BRGWA-5I
590840005	BRGWA-6S
590851001	BRGWA-23S
590851002	BRGWC-47
590851003	EB-05
590856001	BRGWA-12I
590856002	FB-01
590856003	BRGWA-12S
590856004	BRGWC-25I
590859001	BRGWC-33S
590859002	BRGWC-37S
590859003	BRGWC-38S
590859004	PZ-53D
590859005	PZ-13S
590859006	FB-04
591353001	BRGWC-17S
591353002	BRGWC-35S
591353003	BRGWC-36S
591353004	FD-04
591353005	BRGWC-34S
591353006	EB-08
591358001	FD-01

Laboratory ID	Client ID
591358002	PZ-58I
591358003	PZ-60I
591358004	FB-02
591358005	BRGWC-29I
591358006	BRGWC-30I
591358007	BRGWC-50
591358008	FD-03
591358009	BRGWC-45
591358010	PZ-44
591358011	PZ-51I
591358012	PZ-51D
591358013	PZ-61I
591358014	PZ-51S
591358015	FD-02
591358016	PZ-50D
591358017	EB-06
591358018	PZ-62I
591358019	PZ-59I
591358020	BRGWC-27I
591358021	FB-03
591358022	PZ-63I
591358023	PZ-57I
591358024	BRGWC-32S
591358025	EB-07
591358026	BRGWC-52I

No sample preservation issues were noted by the laboratory.

The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, FD-01, FD-02, FD-03 and FD-04. Collection times were not documented in the laboratory reports.

591358: : Incorrect error corrections were observed on the COC, instead of the proper procedure of a single strike through, correction, and date and initials of person making the corrections.

590840 and 590851: The year was not documented on the COCs for the relinquished by date for the second sample transfer.

## 1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by modified US EPA method 9315, modified radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ⊗ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ⊗ Equipment Blank
- ✓ Field Blank
- ⊗ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

### 1.1 Overall Assessment

#### 1.1.1 Completeness

The radiochemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

#### 1.1.2 Analysis Anomaly

590851: The radium-228 result in sample BRGWA-23S was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample BRGWA-23S was UJ qualified as estimated less than the minimum detectable concentration (MDC).

590856: The radium-228 result in sample BRGWC-25I was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample BRGWC-25I was UJ qualified as estimated less than the MDC.

591353: The radium-228 result in sample BRGWC-17S was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample BRGWC-17S was UJ qualified as estimated less than the MDC.

591358: The radium-228 result in sample PZ-51I was more negative than the sample's 1.96 sigma uncertainty. Therefore, the radium-228 result in sample PZ-51I was UJ qualified as estimated less than the MDC.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier*	Reason Code**
BRGWA-23S	Radium-228	-4.51	U	-4.51	UJ	13
BRGWC-25I	Radium-228	-1.62	U	-1.62	UJ	13
BRGWC-17S	Radium-228	-2.32	U	-2.32	UJ	13
PZ-51I	Radium-228	-3.03	U	-3.03	UJ	13

pCi/L-picocuries per liter

U-not detected at or above the MDC

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\*Reason codes are defined in Attachment 2 at the end of this report

## 1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

## 1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-226 data (batches 2309179, 2310752 and 2310764). Three method blanks were reported for the radium-228 data (batches 2309177, 2310792 and 2310793). Radium-226 and radium-228 were not detected in the method blanks above the MDCs.

590840, 590851, 590856 and 590859: Radium-226 (0.319 pCi/L) was detected in the method blank in batch 2309179 at a concentration greater than the MDC. Therefore, the radium-226 and total radium concentrations in samples BRGWA-5S, BRGWA-23S, BRGWC-47, BRGWA-12I, BRGWA-12S, BRGWC-25I, FB-04, BRGWC-33S, BRGWC-37S, BRGWC-38S, PZ-13S and PZ-53D were J+ qualified as estimated with high biases and the radium-226 and total radium concentrations in FB-01 were U qualified as not detected at the MDCs.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRGWA-5S	Radium-226	0.735	NA	0.735	J+	3

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRGWA-5S	Radium-226+228 Sum	0.735	NA	0.735	J+	3
BRGWA-23S	Radium-226	1.59	NA	1.59	J+	3
BRGWA-23S	Radium-226+228 Sum	1.59	NA	1.59	J+	3
BRGWC-47	Radium-226	1.29	NA	1.29	J+	3
BRGWC-47	Radium-226+228 Sum	3.74	NA	3.74	J+	3
BRGWA-12I	Radium-226	0.558	NA	0.558	J+	3
BRGWA-12I	Radium-226+228 Sum	0.558	NA	0.558	J+	3
BRGWA-12S	Radium-226	0.360	NA	0.360	J+	3
BRGWA-12S	Radium-226+228 Sum	1.69	NA	1.69	J+	3
BRGWC-25I	Radium-226	1.90	NA	1.90	J+	3
BRGWC-25I	Radium-226+228 Sum	1.90	NA	1.90	J+	3
FB-04	Radium-226	0.458	NA	0.458	J+	3
FB-04	Radium-226+228 Sum	2.10	NA	2.10	J+	3
BRGWC-33S	Radium-226	1.10	NA	1.10	J+	3
BRGWC-33S	Radium-226+228 Sum	1.94	NA	1.94	J+	3
BRGWC-37S	Radium-226	1.29	NA	1.29	J+	3
BRGWC-37S	Radium-226+228 Sum	2.37	NA	2.37	J+	3
BRGWC-38S	Radium-226	0.407	NA	0.407	J+	3
BRGWC-38S	Radium-226+228 Sum	3.12	NA	3.12	J+	3
PZ-13S	Radium-226	0.956	NA	0.956	J+	3
PZ-13S	Radium-226+228 Sum	1.83	NA	1.83	J+	3
PZ-53D	Radium-226	0.695	NA	0.695	J+	3
PZ-53D	Radium-226+228 Sum	3.04	NA	3.04	J+	3
FB-01	Radium-226	0.320	NA	0.320	U	3
FB-01	Radium-226+228 Sum	1.60	NA	1.60	U	3

pCi/L-picocuries per liter

NA-not applicable

#### 1.4 Matrix Spike

Three sample set specific MSs were reported for radium-226 using samples BRGWA-2S, BRGWC-17S and FD-01 . The recovery results were within the laboratory specified acceptance criteria.

#### 1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported for radium-226 and three LCSs were reported for radium-228. The recovery results were within the laboratory specified acceptance criteria.

### 1.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for radium-228 using samples BRGWA-2S and BRGWC-17S and three sample set specific laboratory duplicates were reported for radium-226 using samples BRGWA-2S, BRGWC-17S and FD-01. The relative error ratio (RER) results were within the laboratory specified acceptance criteria.

### 1.7 Tracers and Carriers

Tracers were reported for radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

### 1.8 Equipment Blank

Four equipment blanks, EB-05, EB-06, EB-07 and EB-08 were collected with the sample set. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs, with the following exceptions.

Radium-226 (0.286 pCi/L) was detected in EB-06 at a concentration greater than the MDC. Therefore, the radium-226 and total radium concentrations in samples FD-03, BRGWC-27I, BRGWC-32S, BRGWC-45, BRGWC-52I, PZ-44, PZ-50D, PZ-57I, PZ-59I, PZ-62I and PZ-63I were J+ qualified as estimated with high biases.

Radium-226 (0.556 pCi/L) was detected in EB-08 at a concentration greater than the MDC. Therefore, the radium-226 and total radium concentrations in samples FD-04, BRGWC-35S, BRGWC-36S, FD-01, BRGWC-50, PZ-51D, PZ-51I, PZ-51S and PZ-60I and total radium concentrations in samples BRGWC-30I and PZ-61I were J+ qualified as estimated with high biases and the radium-226 and total radium concentrations in samples FD-02, BRGWC-29I and PZ-58I and radium-226 concentrations in samples BRGWC-30I and PZ-61I were U qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
FD-03	Radium-226	0.561	NA	0.561	J+	3
FD-03	Radium-226+228 Sum	2.44	NA	2.44	J+	3
BRGWC-27I	Radium-226	0.488	NA	0.488	J+	3
BRGWC-27I	Radium-226+228 Sum	1.79	NA	1.79	J+	3
BRGWC-32S	Radium-226	0.462	NA	0.462	J+	3
BRGWC-32S	Radium-226+228 Sum	1.32	NA	1.32	J+	3
BRGWC-45	Radium-226	0.491	NA	0.491	J+	3
BRGWC-45	Radium-226+228 Sum	1.65	NA	1.65	J+	3
BRGWC-52I	Radium-226	1.57	NA	1.57	J+	3

Plant Branch Data Validation

7 November 2022

Page 7

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRGWC-52I	Radium-226+228 Sum	4.97	NA	4.97	J+	3
PZ-44	Radium-226	0.287	NA	0.287	J+	3
PZ-44	Radium-226+228 Sum	1.60	NA	1.60	J+	3
PZ-50D	Radium-226	0.640	NA	0.640	J+	3
PZ-50D	Radium-226+228 Sum	2.26	NA	2.26	J+	3
PZ-57I	Radium-226	0.395	NA	0.395	J+	3
PZ-57I	Radium-226+228 Sum	0.773	NA	0.773	J+	3
PZ-59I	Radium-226	0.366	NA	0.366	J+	3
PZ-59I	Radium-226+228 Sum	1.02	NA	1.02	J+	3
PZ-62I	Radium-226	0.674	NA	0.674	J+	3
PZ-62I	Radium-226+228 Sum	1.88	NA	1.88	J+	3
PZ-63I	Radium-226	0.882	NA	0.882	J+	3
PZ-63I	Radium-226+228 Sum	1.52	NA	1.52	J+	3
FD-04	Radium-226	2.52	NA	2.52	J+	3
FD-04	Radium-226+228 Sum	3.24	NA	3.24	J+	3
BRGWC-35S	Radium-226	0.669	NA	0.669	J+	3
BRGWC-35S	Radium-226+228 Sum	3.10	NA	3.10	J+	3
BRGWC-36S	Radium-226	0.673	NA	0.673	J+	3
BRGWC-36S	Radium-226+228 Sum	1.38	NA	1.38	J+	3
FD-01	Radium-226	0.571	NA	0.571	J+	3
FD-01	Radium-226+228 Sum	1.89	NA	1.89	J+	3
FD-02	Radium-226	0.403	NA	0.403	U	3
FD-02	Radium-226+228 Sum	1.20	NA	1.20	U	3
BRGWC-29I	Radium-226	0.368	NA	0.368	U	3
BRGWC-29I	Radium-226+228 Sum	1.97	NA	1.97	U	3
BRGWC-30I	Radium-226	0.542	NA	0.542	U	3
BRGWC-30I	Radium-226+228 Sum	3.26	NA	3.26	J+	3
BRGWC-50	Radium-226	0.649	NA	0.649	J+	3
BRGWC-50	Radium-226+228 Sum	1.87	NA	1.87	J+	3
PZ-51D	Radium-226	0.823	NA	0.823	J+	3
PZ-51D	Radium-226+228 Sum	3.33	NA	3.33	J+	3
PZ-51I	Radium-226	0.625	NA	0.625	J+	3
PZ-51I	Radium-226+228 Sum	0.625	NA	0.625	J+	3
PZ-51S	Radium-226	0.878	NA	0.878	J+	3
PZ-51S	Radium-226+228 Sum	1.20	NA	1.20	J+	3
PZ-58I	Radium-226	0.322	NA	0.322	U	3
PZ-58I	Radium-226+228 Sum	1.16	NA	1.16	U	3
PZ-60I	Radium-226	0.704	NA	0.704	J+	3
PZ-60I	Radium-226+228 Sum	3.50	NA	3.50	J+	3
PZ-61I	Radium-226	0.488	NA	0.488	U	3
PZ-61I	Radium-226+228 Sum	2.91	NA	2.91	J+	3

pCi/L-picocuries per liter

NA-not applicable

### 1.9 Field Blank

Four field blanks, FB-01, FB-02, FB-03 and FB-04 were collected with the sample set. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs, with the following exceptions.

Radium-226 (0.320 pCi/L) was detected in FB-01 at a concentration greater than the MDC. Since the radium-226 concentration in FB-01 was U qualified due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Radium-226 (0.458 pCi/L) was detected in FB-04 at a concentration greater than the MDC. Since the radium-226 concentrations in the associated samples were qualified due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

### 1.10 Field Duplicate

Four field duplicate samples, FD-01, FD-02, FD-03 and FD-04 were collected with the sample set. Acceptable precision (RER ( $2\sigma$ ) < 3) was demonstrated between the field duplicates and the original samples, PZ-58I, PZ-51S, BRGWC-45 and BRGWC-36S, respectively, with the following exception.

The RER of radium-226 in field duplicate pair BRGWC-36S/FD-04 was greater than 3; therefore, the radium-226 and total radium concentrations in field duplicate pair BRGWC-36S/FD-04 were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	RER	Validation Result (pCi/L)	Validation Qualifier	Reason Code
FD-04	Radium-226	2.52	NA	4.7	2.52	J	7
BRGWC-36S	Radium-226	0.673	NA		0.673	J	7
FD-04	Radium-226+228 Sum	3.24	NA	NA	3.24	J	7
BRGWC-36S	Radium-226+228 Sum	1.38	NA		1.38	J	7

pCi/L-picocuries per liter

RER-replicate error ratio

NA-not applicable



### **1.11 Sensitivity**

The samples were reported to the MDCs. Elevated non-detect results were not reported.

### **1.12 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

**DATA VALIDATION QUALIFIER DEFINITIONS  
AND INTERPRETATION KEY  
Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec's Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

## Memorandum

Date: 12 January 2023  
To: Lauren Fitzgerald and Kendall Brome  
From: Amani Royce  
CC: K. Henderson and J. Caprio  
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Order 596812 and 599840**

**SITE: Plant Branch CCR Groundwater Compliance AP-BCD and AP-E**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four groundwater samples, collected 11-12 October 2022 and 7 November 2022, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by US EPA Method 7470A
- Anions (Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Alkalinity by SM 2320B

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment, and the following documents: US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and the USEPA

National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and reported in the laboratory report:

Laboratory IDs	Client IDs
596812001	PZ-64I
596812002	PZ-65I

Laboratory IDs	Client IDs
596812003	PZ-66I
599840001	PZ-64I

The samples were received at 1.0 degree Celsius (°C) and 3.0 °C, both within and outside of the EPA Region 4 criteria of 4°C ± 2°C. Since the samples were received between 0-6°C and based on professional judgment, no qualifications were applied to the data. No sample preservation issues were noted by the laboratory.

An incorrect error correction was observed on the chain of custody (COC), instead of the proper procedure of a single strike through, correction, and initials and date of person making the correction.

The field pH data included in the laboratory report were not validated.

## 1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B. Mercury was evaluated separately in Section 2.0, below.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

### **1.1 Overall Assessment**

The metals data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

According to the case narrative the contract required detection limit (CRDL) for calcium did not meet the laboratory specified acceptance criteria. Since the calcium results in the associated samples were significantly greater than the CRDL, based on professional and technical judgement, no qualifications were applied to the data.

### **1.2 Holding Time**

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met.

### **1.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batch 2328994 and 2339502). Metals were not detected in the method blanks above the method detection limits (MDLs).

### **1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported, using sample PZ-64I. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries and RPDs of calcium, cobalt, magnesium, manganese, potassium, and sodium in the MS/MSD pairs using sample PZ-64I collected on 12 October 2022 were not calculated in the laboratory report, due to sample concentrations greater than four times the spike concentrations; therefore, the recovery limits were not applicable. Therefore, no qualifications were applied to the calcium, cobalt, magnesium, manganese, potassium, and sodium data in sample PZ-64I collected on 12 October 2022.

The recoveries and RPD of cobalt in the MS/MSD pairs using sample PZ-64I collected on 7 November 2022 were not calculated in the laboratory report, due to the sample concentration greater than four times the spike concentrations; therefore, the recovery limits were not applicable.

Therefore, no qualifications were applied to the cobalt data in sample PZ-64I collected on 7 November 2022.

### **1.5 Laboratory Control Sample (LCS)**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### **1.6 Field Blank**

Field blanks were not collected with the sample set.

### **1.7 Equipment Blank**

Equipment blanks were not collected with the sample set.

### **1.8 Field Duplicate**

Field duplicate samples were not collected with the sample set.

### **1.9 Serial Dilution**

Two sample set specific serial dilution was reported for metals using sample PZ-64I. The percent difference (%D) results were within the method specified acceptance criteria, with the following exception.

The %D of boron in the serial dilution using sample PZ-64I collected on 12 October 2022 was greater than 10% and since the sample concentration was less than 50 times the MDL, no qualifications were applied to the data.

### **1.10 Sensitivity**

The samples were reported to the MDLs. Elevated non-detect results were not reported.

### **1.11 Electronic Data Deliverable Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

## 2.0 MERCURY

The samples were analyzed for mercury by US EPA Method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### 2.1 Overall Assessment

The mercury data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### 2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met.

### 2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 2329101). Mercury was not detected in the method blank above the MDL.



#### **2.4 Matrix Spike**

An MS was analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS was reported. Since this was a batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

#### **2.5 Laboratory Control Sample**

An LCS was analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

#### **2.6 Laboratory Duplicate**

One batch laboratory duplicate was reported. Since this was a batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

#### **2.7 Field Blank**

Field blanks were not collected with the sample set.

#### **2.8 Equipment Blank**

Equipment blanks were not collected with the sample set.

#### **2.9 Field Duplicate**

Field duplicates were not collected with the sample set.

#### **2.10 Serial Dilution**

One batch serial dilution was reported for mercury. Since this was a batch QC, the result does not affect the samples in this data set and qualifications were not applied to the data.

#### **2.11 Sensitivity**

The samples were reported to the MDL. Elevated non-detect results were not reported.

#### **2.12 Electronic Data Deliverable Review**

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

### 3.0 WET CHEMISTRY

The samples were analyzed for anions by US EPA method 300.0, TDS by SM 2540C, and alkalinity by SM 2320B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ⊗ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

#### 3.1 Overall Assessment

The wet chemistry data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

According to the case narrative, sample PZ-64I did not meet the laboratory specified consecutive weight check acceptance criteria for TDS. Therefore, the TDS concentration in sample PZ-64I was J qualified as estimated.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-64I	TDS	3780	NA	3780	J	13

mg/L- Milligrams per Liter

NA- Not Applicable

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\* Reason codes are defined in Attachment 2 at the end of this report

### **3.2 Holding Times**

The holding time for the anion (fluoride, chloride, sulfate) analyses of a water sample are 28 days from sample collection to analysis. The holding time for the TDS analysis of a water sample is 7 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met.

### **3.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for anions (batch 2331124). One method blank was reported for TDS (batch 2329094). The wet chemistry parameters were not detected in the method blanks above the MDLs.

### **3.4 Matrix Spike**

A batch MS was reported for alkalinity and a post spike (PS) was reported for the anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

### **3.5 Laboratory Control Sample**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

### **3.6 Laboratory Duplicate**

Batch laboratory duplicates were reported for TDS, alkalinity, and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

### **3.7 Field Blank**

Field blanks were not collected with the sample set.

### **3.8 Equipment Blank**

Equipment blanks were not collected with the sample set.

### **3.9 Field Duplicate**

Field duplicate samples were not collected with the sample set.

### **3.10 Sensitivity**

The samples were reported to the MDLs. Elevated non-detect results were not reported.

### **3.11 Electronic Data Deliverable Review**

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

**ATTACHMENT 1**  
**DATA VALIDATION QUALIFIER DEFINITIONS**  
**AND INTERPRETATION KEY**  
**Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec's Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

# January-June 2023

## Memorandum

Date: 27 July 2023  
To: Lauren Fitzgerald  
Courtney Collins  
From: Ashley Wilson  
CC: K. Henderson  
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders:  
AP-BCD: 608413, 608602, 608803, 608969, 609212, 614819, 616295,  
621821, 622760, 623143, 624176, 624375, 624831 and 624832  
AP-E: 608815, 608614, 608422 and 608418  
Both: 608410**

**SITE: Plant Branch CCR Groundwater Compliance AP-BCD and AP-E**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of fifty-nine groundwater samples, five equipment blanks, five field blanks and five field duplicate samples, collected 24-26 & 30 January 2023, 1 February 2023, 3 & 29 March 2023, 11, 18, 22 & 31 May 2023 and 1, 5 & 6 June 2023 as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by US EPA Method 7470A
- Anions (Nitrate-Nitrogen (N), Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Total Sulfide by SM 4500-S2-D
- Alkalinity by SM 2320B

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications.



The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment, and the following documents:

US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and

the USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and reported in the laboratory reports:

Laboratory IDs	Client IDs
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06

Laboratory IDs	Client IDs
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
608815001	BRA-PZ-13S
608815002	BRA-PZ-70I
608815003	BRA-APE-FD-05
608815004	BRA-APE-EB-10
608815005	BRA-PZ-52D
608614001	BRA-BRGWC-36S
608614002	BRA-BRGWC-37S
608614003	BRA-BRGWC-38S
608614004	BRA-PZ-53D
608614005	BRA-APE-EB-09
608614006	BRA-APE-FB-08
608422001	BRA-APE-FD-04
608422002	BRA-APE-FB-07
608418001	BRA-BRGWC-17S
608418002	BRA-BRGWC-33S
608418003	BRA-BRGWC-34S
608418004	BRA-BRGWC-35S
608410001	BRA-BRGWA-2S
608410002	BRA-BRGWA-2I
608410003	BRA-BRGWA-5S
608410004	BRA-BRGWA-5I
608410005	BRA-BRGWA-6S

Laboratory IDs	Client IDs
614819001	BRA-PZ-69I
616295001	BRA-PZ-18S
616295002	BRA-PZ-19S
621821001	BRA-PZ-71I
622760001	BRA-PZ-71I
623143001	BRA-PZ-72I
623143002	BRA-PZ-73I

Laboratory IDs	Client IDs
624176001	BRA-PZ-73I
624375001	BRA-PZ-73I
624375002	BRA-PZ-72I
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
624832001	BRA-PZ-74I

The samples were received at 0.0, 1.0 and 2.0 degrees Celsius (°C), both within and outside of the EPA Region 4 criteria of 4°C ± 2°C. Since the samples were received between 0-6°C and based on professional judgment, no qualifications were applied to the data. No sample preservation issues were noted by the laboratory.

The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, APBCD-FD-01, APBCD-FD-02, APBCD-FD-03, BRA-APE-FD-04 and BRA-APE-FD-05. The laboratory logged the samples in with the collection time of 12:00.

624276: COC was missing both relinquishing and receiving signatures, dates and times.

622760: The relinquishing time was not documented on the COC.

608413, 608803, 608602 and 608815: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

The field pH and field ferrous iron data included in the laboratory reports were not validated.

The DVR was revised on July 27, 2023, to include data from work orders: 614819, 616295, 621821, 622760, 623143, 624176, 624375, 624831 and 624832.

## 1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B. Mercury was evaluated separately in Section 2.0, below.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Field Blank
- ⊗ Equipment Blank
- ⊗ Field Duplicate
- ⊗ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

## **1.1 Overall Assessment**

### **1.1.1 Completeness**

The metals data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### **1.1.2 Analysis Anomaly**

All reports: The laboratory noted that the interference check standard analysis (ICSA) solution contained trace impurities for metals.

608602 and 608614: The laboratory noted that the contract required detection limits (CRDLs) were met for the metals except for boron. Since boron was either not detected in the associated samples or based on the boron concentrations in the associated samples and professional and technical judgment, no qualifications were applied to the data.

624176 and 624831: The laboratory noted that the CRDLs were met for the metals except for calcium. Since calcium was either not detected in the associated samples or based on the boron concentrations in the associated samples and professional and technical judgment, no qualifications were applied to the data.

## **1.2 Holding Time**

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met.

### 1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sixteen method blanks were reported (batches 2375324, 2377747, 2376276, 2374786, 2374301, 2375511, 2400579, 2406504, 2410791, 2428156, 2431467, 2433108, 2436929, 2437819, 2439850 and 2439740). Metals were not detected in the method blanks at or above the method detection limits (MDLs), with the following exceptions.

608803: Molybdenum was detected in the method blank in batch 2375324 at an estimated concentration greater than the MDL and less than the reporting limit (RL). Therefore, the estimated molybdenum concentrations in samples BRA-BRGWC-25I, BRA-BRGWC-47, BRA-PZ-50D, BRA-PZ-51D and BRA-PZ-51I were U qualified as not detected at or above the RL.

608969: Beryllium was detected in the method blank in batch 2376276 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of beryllium in samples BRA-APBCD-FD03, BRA-PZ-62I and BRA-PZ-66I were U qualified as not detected at or above the RL.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier*	Reason Code**
BRA-BRGWC-25I	Molybdenum	0.000920	J	0.00100	U	3
BRA-BRGWC-47	Molybdenum	0.000270	J	0.00100	U	3
BRA-PZ-50D	Molybdenum	0.000817	J	0.00100	U	3
BRA-PZ-51D	Molybdenum	0.000850	J	0.00100	U	3
BRA-PZ-51I	Molybdenum	0.000283	J	0.00100	U	3
BRA-APBCD-FD03	Beryllium	0.000291	J	0.000500	U	3
BRA-PZ-62I	Beryllium	0.000293	J	0.000500	U	3
BRA-PZ-66I	Beryllium	0.000318	J	0.000500	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\*Reason codes are defined in Attachment 2 at the end of this report

### 1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Fourteen sample set specific MS/MSD pairs were reported, using samples BRA-BRGWC-25I, BRA-PZ-66I, BRA-PZ-44, BRA-PZ-13S, BRA-BRGWA-2S, BRA-PZ-18S, BRA-PZ-19S, BRA-PZ-71I, BRA-PZ-71I, BRA-PZ-72I, BRA-PZ-73I, BRA-PZ-72I, BRA-PZ-74I and BRA-IW-B-5. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

Two batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data

### 1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sixteen LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### 1.6 Field Blank

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Metals were not detected in the field blanks at or above the MDLs, with the following exceptions.

608602: Arsenic was detected in field blank BRA-APBCD-FB-01 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of arsenic in samples BRA-APBCD-EB-04, BRA-BRGWC-45, BRA-BRGWC-50 and BRA-PZ-44 were U qualified as not detected at or above the RL.

608969: Manganese (0.017 mg/L) and molybdenum (0.00113 mg/L) were detected in field blank BRA-APBCD-FB-03 at concentrations greater than the RLs. Therefore, the estimated manganese concentration in sample BRA-APBCD-EB-06 and the estimated molybdenum concentrations in samples BRA-APBCD-FD03, BRA-PZ-62I, BRA-PZ-63I, BRA-PZ-64I and BRA-PZ-66I were U qualified as not detected at or above the RLs.

608614: Arsenic was detected in field blank BRA-APE-FB-08 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of arsenic in samples BRA-APE-EB-09, BRA-BRGWC-37S and BRA-BRGWC-38S were U qualified as not detected at or above the RL.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-EB-04	Arsenic	0.00285	J	0.00500	U	3
BRA-BRGWC-45	Arsenic	0.00225	J	0.00500	U	3
BRA-BRGWC-50	Arsenic	0.00236	J	0.00500	U	3
BRA-PZ-44	Arsenic	0.00221	J	0.00500	U	3
BRA-APBCD-EB-06	Manganese	0.00112	J	0.00500	U	3
BRA-APBCD-FD03	Molybdenum	0.000251	J	0.00100	U	3
BRA-PZ-62I	Molybdenum	0.000247	J	0.00100	U	3
BRA-PZ-63I	Molybdenum	0.000803	J	0.00100	U	3

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-64I	Molybdenum	0.000201	J	0.00100	U	3
BRA-PZ-66I	Molybdenum	0.000675	J	0.00100	U	3
BRA-APE-EB-09	Arsenic	0.00210	J	0.00500	U	3
BRA-BRGWC-37S	Arsenic	0.00300	J	0.00500	U	3
BRA-BRGWC-38S	Arsenic	0.00486	J	0.00500	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

### 1.7 Equipment Blank

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Metals were not detected in the equipment blanks at or above the MDLs, with the following exceptions.

608602: Arsenic was detected in equipment blank BRA-APBCD-EB-04 at an estimated concentration greater than the MDL and less than the RL. Since the arsenic concentration in BRA-APBCD-EB-04 was U qualified due to field blank contamination, no additional qualifications were applied to the arsenic data.

608803: Boron was detected in equipment blank BRA-APBCD-EB-05 at an estimated concentration greater than the MDL and less than the RL. Since boron was detected in the associated samples at concentrations greater than the RL and based on professional and technical judgment, no qualifications were applied to the data.

608969: Manganese was detected in equipment blank BRA-APBCD-EB-06 at an estimated concentration greater than the MDL and less than the RL. Since the manganese concentration in BRA-APBCD-EB-06 was U qualified due to field blank contamination, no additional qualifications were applied to the data.

608815: Arsenic was detected in equipment blank BRA-APE-EB-10 at an estimated concentration greater than the MDL and less than the RL. Therefore, the estimated concentrations of arsenic in samples BRA-APE-FD-05, BRA-PZ-13S, BRA-PZ-52D and BRA-PZ-70I were U qualified as not detected at or above the RL.

608614: Arsenic was detected in equipment blank BRA-APE-EB-09 at an estimated concentration greater than the MDL and less than the RL. Since the arsenic concentration in BRA-APE-EB-09 was U qualified due to field blank contamination, no additional qualifications were applied to the arsenic data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APE-FD-05-WG-20230126	Arsenic	0.00470	J	0.00500	U	3
BRA-PZ-13S-WG-20230126	Arsenic	0.00388	J	0.00500	U	3
BRA-PZ-52D-WG-20230125	Arsenic	0.00368	J	0.00500	U	3
BRA-PZ-70I-WG-20230126	Arsenic	0.00366	J	0.00500	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

### 1.8 Field Duplicate

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision ( $RPD \leq 20\%$  or the difference between the concentrations  $< RL$ ) was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively, with the following exceptions.

608602: Arsenic and lead were not detected in BRA-APBCD-FD-01 and detected in sample BRA-BRGWC-45, resulting in a noncalculable RPD. Since the arsenic concentration in BRA-BRGWC-45 was U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the arsenic data. However, based on professional and technical judgment, the lead concentration in sample BRA-BRGWC-45 was J qualified as estimated and the non-detect result in BRA-APBCD-FD-01 was UJ qualified as estimated less than the MDL.

608969: Arsenic was not detected in sample BRA-PZ-62I and detected in BRA-APBCD-FD03, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the arsenic concentration in BRA-APBCD-FD03 was J qualified as estimated and the non-detect result in sample BRA-PZ-62I was UJ qualified as estimated less than the MDL.

608422/608418: Arsenic was not detected in BRA-APE-FD-04 and detected in sample BRA-BRGWC-33S, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the arsenic concentration in sample BRA-BRGWC-33S was J qualified as estimated and the non-detect results in BRA-APE-FD-04 was UJ qualified as estimated less than the MDL.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-FD-01	Lead	0.00200	U	NC	0.00200	UJ	7

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-BRGWC-45	Lead	0.000595	J		0.000595	J	7
BRA-APBCD-FD03	Arsenic	0.00201	J	NC	0.00201	J	7
BRA-PZ-62I	Arsenic	0.00200	U		0.00200	UJ	7
BRA-APE-FD-04	Arsenic	0.00200	U	NC	0.00200	UJ	7
BRA-BRGWC-33S	Arsenic	0.00201	J		0.00201	J	7

mg/L- milligram per liter

U-not detected at or above the MDL

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

### 1.9 Serial Dilution

Fourteen sample set specific serial dilutions were reported for metals using samples BRA-BRGWC-25I, BRA-PZ-66I, BRA-PZ-44, BRA-PZ-13S, BRA-BRGWA-2S, BRA-PZ-18S, BRA-PZ-19S, BRA-PZ-71I, BRA-PZ-71I, BRA-PZ-72I, BRA-PZ-73I, BRA-PZ-72I, BRA-PZ-74I and BRA-IW-B-5. The percent difference (%D) results were within the method specified acceptance criteria, with the following exceptions.

608969: The %Ds of magnesium, calcium and sodium in the serial dilution using sample BRA-PZ-66I were greater than 20% and the sample concentrations were greater than 50 times the MDLs. Therefore, the magnesium, calcium and sodium concentrations in sample BRA-PZ-66I were J qualified as estimated.

Two batch serial dilution was also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-66I	Magnesium	303	NA	303	J	8
BRA-PZ-66I	Calcium	217	NA	217	J	8
BRA-PZ-66I	Sodium	62.9	NA	62.9	J	8

mg/L- milligram per liter

NA-not applicable

### 1.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.



### **1.11 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

## **2.0 MERCURY**

The samples were analyzed for mercury by US EPA Method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### **2.1 Overall Assessment**

The mercury data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### **2.2 Holding Time**

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met.

### **2.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Eight method blanks were reported (batches 2375754, 2378878, 2376750, 2375028, 2374419, 2401400, 2428103 and 2437128). Mercury was not detected in the method blanks at or above the MDL.

### **2.4 Matrix Spike**

MSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS was reported using sample BRA-BRGWC-30I. The recovery result was within the laboratory specified acceptance criteria

Seven batch MSs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### **2.5 Laboratory Control Sample**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Eight LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### **2.6 Laboratory Duplicate**

One sample set specific laboratory duplicate was reported using sample BRA-BRGWC-30I. The RPD result was within the laboratory specified acceptance criteria.

Eight batch laboratory duplicates were reported for mercury. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### **2.7 Field Blank**

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Mercury was not detected in the field blanks at or above the MDL.

### **2.8 Equipment Blank**

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Mercury was not detected in the equipment blanks at or above the MDL.

## 2.9 Field Duplicate

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision (RPD < 20% or the difference between the concentrations < RL) was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively.

## 2.10 Serial Dilution

One sample set specific serial dilution was performed on sample BRA-BRGWC-30I. The %D results were within the method specified acceptance criteria. Seven batch serial dilutions were also reported for mercury. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

## 2.11 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

## 2.12 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

## 3.0 WET CHEMISTRY

The samples were analyzed for anions by US EPA method 300.0, TDS by SM 2540C, total sulfide by SM 4500-S2-D and alkalinity by SM 2320B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Field Blank
- ⊗ Equipment Blank

- ⊗ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

### **3.1 Overall Assessment**

#### **3.1.1 Completeness**

The wet chemistry data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

#### **3.1.2 Analysis Anomaly**

608803, 608969, 608413, 608815, 621821, 624831 and 624832: Manual integrations were performed to position the baseline as set in the calibration standard for the anion analyses.

616295: Additional information from the laboratory states that the sulfide samples in work order 616295 were not within preservation range upon arrival. The provided correspondence between the client and laboratory states that the client allowed the laboratory to preserve the samples and proceed with analysis.

### **3.2 Holding Times**

The holding time for the nitrate-N analyses of a water sample is 48 hours from sample collection to analysis. The holding time for the anion (fluoride, chloride, sulfate) analyses of a water sample is 28 days from sample collection to analysis. The holding time for the TDS and total sulfide analysis of a water sample is 7 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met.

### **3.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Fourteen method blanks were reported for anions (batches 2375330, 2375336, 2377739, 2376273, 2374768, 2374002, 2375453, 2373867, 2374833, 2400698, 2406403, 2428256, 2437803 and 2439679). Thirteen method blanks were reported for TDS (batches 2376741, 2377374, 2379677, 2377347, 2374524, 2374521, 2376170, 2376740, 2400767, 2406625, 2428760, 2437940 and 2440211). Eleven method blanks were reported for total sulfide (batches 2375859, 2376122, 2377896, 2374524, 2374521, 2375142, 2406779, 2408818, 2427582, 2437743 and 2440523). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

### **3.4 Matrix Spike/Matrix Spike Duplicate**

Eight sample set specific MSs were reported for anions, using samples BRA-PZ-50D, BRA-PZ-64I, BRA-PZ-44, BRA-BRGWA-12S, BRA-PZ-13S, BRA-BRGWC-35S, BRA-PZ-69I and BRA-IW-B-5. Seven sample set specific MS/MSDs were reported for total sulfide, using samples BRA-BRGWC-25I, BRA-BRGWC-50, BRA-BRGWC-33S, BRA-PZ-52D, BRA-BRGWC-33S, BRA-PZ-53D and BRA-BRGWA-2S. Five sample set specific MS/MSDs were reported for total alkalinity, using samples BRA-BRGWC-25I, BRA-PZ-60I, BRA-PZ-68D, BRA-PZ-66I and BRA-PZ-71I. The recovery results were within the laboratory specified acceptance criteria, with the following exceptions

608803: The recovery of chloride in the MS using sample BRA-PZ-50D was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-PZ-50D was J+ qualified as estimated with a high bias.

608803: The recovery of total sulfide in the MS/MSD pair using sample BRA-BRGWC-25I was low and outside the laboratory specified acceptance criteria. Therefore, the non-detect total sulfide result in sample BRA-BRGWC-25I was UJ qualified as estimated less than the MDL.

608602: The recovery of chloride in the MS using sample BRA-PZ-44 was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-PZ-44 was J+ qualified as estimated with a high bias.

608418: The recoveries of chloride and sulfate in the MS using sample BRA-BRGWC-35S were high and outside the laboratory specified acceptance criteria. Therefore, the concentrations of chloride and sulfate in sample BRA-BRGWC-35S were J+ qualified as estimated with high biases.

614819: The recovery of chloride in the MS using sample BRA-PZ-69I was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of chloride in sample BRA-PZ-69I was J+ qualified as estimated with a high bias.

614831: The recovery of nitrate-N in the MS using sample BRA-IW-B-5 was high and outside the laboratory specified acceptance criteria. Therefore, the non-detect nitrate-N result in sample BRA-IW-B-5 was UJ qualified as estimated less than the MDL.

Batch MSs were also reported for alkalinity and anions and batch MS/MSD pairs were reported for total sulfide. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-50D	Chloride	11.5	NA	11.5	J+	4
BRA-BRGWC-25I	Total Sulfide	0.033	U	0.033	UJ	4
BRA-PZ-44	Chloride	5.84	NA	5.84	J+	4
BRA-BRGWC-35S	Sulfate	334	NA	334	J+	4
BRA-BRGWC-35S	Chloride	6.46	NA	6.46	J+	4
BRA-PZ-69I	Chloride	5.71	NA	5.71	J+	4
BRA-IW-B-5	Nitrate-N	0.066	U	0.066	UJ	4

mg/L- milligram per liter

NA-not applicable

U-not detected at or above the MDL

### 3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

### 3.6 Laboratory Duplicate

Eight sample set specific laboratory duplicates were reported for anions, using samples BRA-BRGWC-35S, BRA-PZ-50D, BRA-PZ-64I, BRA-PZ-44, BRA-BRGWA-12S, BRA-PZ-13S, BRA-PZ-69I and BRA-IW-B-5. Five sample set specific laboratory duplicates were reported for alkalinity, using samples BRA-BRGWC-25I, BRA-PZ-60I, BRA-PZ-68D, BRA-PZ-66I and BRA-PZ-71I. Six sample set specific laboratory duplicates were reported for TDS using samples BRA-PZ-51D, BRA-PZ-61I, BRA-PZ-57I, BRA-PZ-44, BRA-BRGWC-17S and BRA-BRGWC-17S. The RPD results were within the laboratory specified acceptance criteria.

Batch laboratory duplicates were reported for TDS, alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data. The RPD results were within the laboratory specified acceptance criteria.

### 3.7 Field Blank

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. The wet chemistry parameters were not detected in the field blanks at or above the MDLs with the following exceptions.

608602: Fluoride was detected in BRA-APBCD-FB-01 at an estimated concentration greater than the MDL and less than the RL. Therefore, based on professional and technical judgment, the concentrations of fluoride in samples BRA-PZ-44, BRA-APBCD-FD-01, BRA-BRGWC-27I and BRA-BRGWC-45 were J+ qualified as estimated with high biases.

608803: Chloride was detected in field blank BRA-APBCD-FB-02 at a concentration greater than the MDL and less than the RL. Since the chloride concentration in the associated samples were greater than the RL and based on technical and professional judgement, no qualifications were applied to the data.

608969: Chloride (0.204 mg/L) was detected in field blank BRA-APBCD-FB-03 at a concentration greater than the RL and bicarbonate alkalinity and total alkalinity were detected at estimated concentrations greater than the MDLs and less than the RLs. Therefore, the concentration of chloride in BRA-APBCD-EB-06 was J+ qualified as estimated with a high bias, and the estimated concentrations of total alkalinity and bicarbonate alkalinity in sample BRA-APBCD-EB-06 were U qualified as not detected at or above the RL.

608422: Total alkalinity and bicarbonate alkalinity were detected at estimated concentrations greater than the MDLs and less than the RLs in field blank BRA-APE-FB-07. Therefore, the estimated concentrations of total alkalinity and bicarbonate alkalinity in sample BRA-APE-FD-04 were U qualified as not detected at or above the RLs.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-PZ-44	Fluoride	0.130	NA	0.130	J+	3
BRA-APBCD-FD-01	Fluoride	0.151	NA	0.151	J+	3
BRA-BRGWC-27I	Fluoride	0.152	NA	0.152	J+	3
BRA-BRGWC-45	Fluoride	0.163	NA	0.163	J+	3
BRA-APBCD-EB-06	Chloride	0.667	NA	0.667	J+	3
BRA-APBCD-EB-06	Bicarbonate alkalinity (CaCO <sub>3</sub> )	1.80	J	4.00	U	3
BRA-APBCD-EB-06	Alkalinity, Total as CaCO <sub>3</sub>	1.80	J	4.00	U	3
BRA-APE-FD-04	Alkalinity, Total as CaCO <sub>3</sub>	3.40	J	4.00	U	3

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APE-FD-04	Bicarbonate alkalinity (CaCO3)	3.40	J	4.00	U	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

### 3.8 Equipment Blank

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. The wet chemistry parameters were not detected in the equipment blanks at or above the MDLs, with the following exceptions.

608602: Nitrate-n was detected at an estimated concentration greater than the MDL and less than the RL in equipment blank BRA-APBCD-EB-04. Therefore, the estimated concentrations in samples BRA-APBCD-FD-01 and BRA-BRGWC-45 were U qualified as not detected at or above the RL.

608803: Total alkalinity and bicarbonate alkalinity were detected at estimated concentrations greater than the MDLs and less than the RL in equipment blank BRA-APBCD-EB-05. Since the total and bicarbonate alkalinity concentrations in the associated samples were greater than the RLs and based on technical and professional judgement, no qualifications were applied to the data.

608969: Chloride (0.667 mg/L) was detected in equipment blank BRA-APBCD-EB-06 at a concentration greater than the RL and bicarbonate alkalinity and total alkalinity were detected at estimated concentrations greater than the MDL and less than the RL. Since the total and the bicarbonate alkalinity concentrations in BRA-APBCD-EB-06 were U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the total and the bicarbonate alkalinity data. However, the chloride concentration in sample BRA-PZ-51S was J+ qualified as estimated with high bias.

608815: Total and bicarbonate alkalinity were detected in equipment blank BRA-APE-EB-10 at estimated concentrations greater than the MDLs and less than the RLs. Since the total and bicarbonate alkalinity concentrations in the associated samples were greater than the RLs and based on technical and professional judgement, no qualifications were applied to the data.



Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-FD-01	Nitrate-N	0.0824	J	0.100	U	3
BRA-BRGWC-45	Nitrate-N	0.126	J	0.200	U	3
BRA-PZ-51S	Chloride	4.45	NA	4.45	J+	3

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

NA-not applicable

### 3.9 Field Duplicate

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision (RPD < 20% or the difference between the concentrations < RL) was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively.

608969: Fluoride was not detected in BRA-APBCD-FD03 and detected in sample BRA-PZ-62I, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the fluoride concentration in sample BRA-PZ-62I was J qualified as estimated and the non-detect results in BRA-APBCD-FD03 was UJ qualified as estimated less than the MDL.

608422/608418: Nitrate-n was not detected in BRA-APE-FD-04 and detected in sample BRA-BRGWC-33S, resulting in a noncalculable RPD. Based on the difference in dilution analyzed and professional and technical judgment, no qualifications were applied to the data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
BRA-APBCD-FD03	Fluoride	0.100	U	NC	0.100	UJ	7
BRA-PZ-62I	Fluoride	0.161	NA		0.161	J	7

mg/L- milligram per liter

U-not detected at or above the MDL

NA-not applicable

NC-not calculable

### **3.10 Sensitivity**

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

### **3.11 Electronic Data Deliverable Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

**DATA VALIDATION QUALIFIER DEFINITIONS  
AND INTERPRETATION KEY  
Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result.”
  
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
  
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
  
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
  
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
  
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec’s Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

## Memorandum

Date: July 21, 2023  
To: Lauren Fitzgerald  
From: Kristoffer Henderson  
CC: J. Caprio  
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders (WOs) 608412, 609213, 608972, 608609, 608813, 608416, 609400, 608420, 608819, 608622, 608423, 614823, 621822 and 624382**

**SITE: Plant Branch CCR Groundwater Compliance**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of forty-eight groundwater samples, five equipment blanks, five field blanks and five field duplicate samples, collected between 24 January 2023, 2 February 2023, 16 March 2023, 11 and 31 May 2023, and 1 June 2023, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Radium-226 by Modified United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by Modified US EPA Method 9320
- Total Radium by Calculation

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- American Nuclear Society Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation (ANSI/ANS-41.5-2012), February 15, 2012.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
608412001	BRA-BRGWA-2S
608412002	BRA-BRGWA-2I
608412003	BRA-BRGWA-5S
608412004	BRA-BRGWA-5I
608412005	BRA-BRGWA-6S
608416001	BRA-BRGWA-12S
608416002	BRA-BRGWA-12I
608416003	BRA-BRGWA-23S
608416004	BRA-BRGWC-32S
608420001	BRA-BRGWC-17S
608420002	BRA-BRGWC-33S
608420003	BRA-BRGWC-34S
608420004	BRA-BRGWC-35S
608423001	BRA-APE-FD-04
608423002	BRA-APE-FB-07
608609001	BRA-PZ-44
608609002	BRA-APBCD-FD-01
608609003	BRA-BRGWC-45
608609004	BRA-APBCD-EB-04
608609005	BRA-APBCD-FB-01
608609006	BRA-BRGWC-50
608609007	BRA-BRGWC-52I
608609008	BRA-BRGWC-27I
608622001	BRA-BRGWC-36S
608622002	BRA-BRGWC-37S
608622003	BRA-BRGWC-38S
608622004	BRA-PZ-53D
608622005	BRA-APE-EB-09
608622006	BRA-APE-FB-08
608813001	BRA-BRGWC-25I
608813002	BRA-BRGWC-29I
608813003	BRA-BRGWC-30I

Laboratory ID	Client ID
608813004	BRA-APBCD-EB-05
608813005	BRA-APBCD-FB-02
608813006	BRA-PZ-51I
608813007	BRA-APBCD-FD-02
608813008	BRA-BRGWC-47
608813009	BRA-PZ-51D
608813010	BRA-PZ-58I
608813011	BRA-PZ-59I
608813012	BRA-PZ-60I
608813013	BRA-PZ-61I
608813014	BRA-PZ-65I
608813015	BRA-PZ-50D
608819001	BRA-PZ-13S
608819002	BRA-PZ-70I
608819003	BRA-APE-FD-05
608819004	BRA-APE-EB-10
608972001	BRA-PZ-66I
608972002	BRA-APBCD-FB-03
608972003	BRA-APBCD-EB-06
608972004	BRA-PZ-57I
608972005	BRA-APBCD-FD03
608972006	BRA-PZ-63I
608972007	BRA-PZ-62I
608972008	BRA-PZ-51S
608972009	BRA-PZ-64I
609213001	BRA-PZ-68D
609213002	BRA-PZ-69I
609400001	BRA-PZ-52D
614823001	BRA-PZ-69I
621822001	BRA-PZ-71I
624382001	BRA-PZ-73I

No sample preservation issues were noted by the laboratory.

WOs 608423, 608609, 608813, 608819 and 608972: The sample collection times were not listed on the chain of custody (COC) for field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05. Collection times were not documented in the laboratory reports.

WOs 608423, 608622, 608813, 608819 and 608972: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and date and initials of person making the corrections.

## **1.0 RADIOCHEMISTRY**

The samples were analyzed for radium-226 by modified US EPA method 9315, modified radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ✓ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ⊗ Field Blank
- ⊗ Equipment Blank
- ⊗ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

### **1.1 Overall Assessment**

The radiochemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### **1.2 Holding Times**

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

### 1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Nine method blanks were reported for the radium-226 data (batches 2374665, 2377436, 2378760, 2377431, 2377423, 2378777, 2406187, 2430843 and 2438535). Nine method blanks were reported for the radium-228 data (batches 2374674, 2377496, 2378772, 2377475, 2377470, 2378762, 2406247, 2430849 and 2438733). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs), with the following exception.

608813: Radium-228 was detected in the method blank in batch 2377475 at a concentration greater than the MDC. Therefore, the radium-228 and radium-226+228 concentrations in samples BRA-PZ-51D and BRA-PZ-60I were J+ qualified as estimated with high biases.

624382: Radium-228 was detected in the method blank in batch 2438733 at a concentration greater than the MDC. Since radium-228 was not detected at a concentration greater than the MDC in the associated sample, no qualifications were applied to the data.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier*	Reason Code**
BRA-PZ-51D	Radium-228	2.96	NA	2.96	J+	3
BRA-PZ-51D	Radium-226+228 Sum	3.70	NA	3.70	J+	3
BRA-PZ-60I	Radium-228	3.21	NA	3.21	J+	3
BRA-PZ-60I	Radium-226+228 Sum	5.31	NA	5.31	J+	3

pCi/L-picocuries per liter

NA-not applicable

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\*Reason codes are defined in Attachment 2 at the end of this report

### 1.4 Matrix Spike

Four sample set specific MSs were reported for radium-226 using samples BRA-PZ-66I, BRA-PZ-68D, BRA-BRGWC-25I and BRA-PZ-71I. The recovery results were within the laboratory specified acceptance criteria.

Six batch MSs were also reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### 1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Nine LCSs were reported for radium-226 and nine LCSs were reported for radium-228. The recovery results were within the laboratory specified acceptance criteria.



**1.6 Laboratory Duplicate**

Four sample set specific laboratory duplicates were reported for radium-226 using samples BRA-PZ-66I, BRA-PZ-68D, BRA-BRGWC-25I and BRA-PZ-71I and four sample set specific laboratory duplicates were reported for radium-228 using samples BRA-PZ-66I, BRA-PZ-68D, BRA-BRGWC-25I and BRA-PZ-71I. The relative error ratio (RER) results were within the laboratory specified acceptance criteria.

In addition, six batch laboratory duplicates were reported for radium-226 and six batch laboratory duplicates were reported for radium-228. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

**1.7 Tracers and Carriers**

Tracers were reported for radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

**1.8 Field Blank**

Five field blanks, BRA-APBCD-FB-01, BRA-APBCD-FB-02, BRA-APBCD-FB-03, BRA-APE-FB-07 and BRA-APE-FB-08 were collected with the sample set. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs, with the following exceptions.

608609: Radium-226 [0.246 picocuries per liter (pCi/L)] was detected in BRA-APBCD-FB-01 at a concentration greater than the MDC. Therefore, the radium-226 concentrations in samples BRA-APBCD-FD-01, BRA-BRGWC-27I and BRA-PZ-44 were J+ qualified as estimated with high biases.

608622: Radium-226+228 (2.11 pCi/L) was detected in BRA-APE-FB-08 at a concentration greater than the MDC. Since radium-226 and radium-228 were not detected in BRA-APE-FB-08 at concentrations greater than the MDCs and based on professional and technical judgment, no qualifications were applied to the data.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-APBCD-FD-01	Radium-226	0.599	NA	0.599	J+	3
BRA-BRGWC-27I	Radium-226	1.27	NA	1.27	J+	3
BRA-PZ-44	Radium-226	1.15	NA	1.15	J+	3

pCi/L-picocuries per liter

NA-not applicable

**1.9 Equipment Blank**

Five equipment blanks, BRA-APBCD-EB-04, BRA-APBCD-EB-05, BRA-APBCD-EB-06, BRA-APE-EB-09 and BRA-APE-EB-10 were collected with the sample set. Radium-226 and radium-228 were not detected in the equipment blanks above the MDCs, with the following exceptions.

608609: Radium-228 (2.59 pCi/L) was detected in BRA-APBCD-EB-04 at a concentration greater than the MDC. Therefore, the radium-228 and radium-226+228 concentrations in samples BRA-PZ-13S and BRA-BRGWC-36S were J+ qualified as estimated with high biases.

608972: Radium-228 (2.97 pCi/L) was detected in BRA-APBCD-EB-06 at a concentration greater than the MDC. Therefore, the radium-228 concentration in sample BRA-PZ-51S was U qualified as not detected at the reported concentration and the radium-228 concentrations in samples BRA-PZ-68D, BRA-PZ-63I and BRA-PZ-64I and radium-226+228 concentrations in samples BRA-PZ-68D, BRA-PZ-51S, BRA-PZ-63I and BRA-PZ-64I were J+ qualified as estimated with high biases.

608622: Radium-228 (3.13 pCi/L) was detected in BRA-APE-EB-10 at concentration greater than the MDCs. Since the radium-228 concentrations in the associated samples were qualified due to method blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-PZ-68D	Radium-228	3.77	NA	3.77	J+	3
BRA-PZ-68D	Radium-226+228 Sum	4.16	NA	4.16	J+	3
BRA-PZ-51S	Radium-228	2.36	NA	2.36	U	3
BRA-PZ-51S	Radium-226+228 Sum	3.19	NA	3.19	J+	3
BRA-PZ-63I	Radium-228	4.19	NA	4.19	J+	3
BRA-PZ-63I	Radium-226+228 Sum	6.03	NA	6.03	J+	3
BRA-PZ-64I	Radium-228	3.38	NA	3.38	J+	3
BRA-PZ-64I	Radium-226+228 Sum	3.50	NA	3.50	J+	3
BRA-PZ-13S	Radium-228	2.88	NA	2.88	J+	3
BRA-PZ-13S	Radium-226+228 Sum	4.77	NA	4.77	J+	3
BRA-BRGWC-36S	Radium-228	3.49	NA	3.49	J+	3
BRA-BRGWC-36S	Radium-226+228 Sum	4.86	NA	4.86	J+	3

pCi/L-picocuries per liter

NA-not applicable

**1.10 Field Duplicate**

Five field duplicate samples, BRA-APBCD-FD-01, BRA-APBCD-FD-02, BRA-APBCD-FD03, BRA-APE-FD-04 and BRA-APE-FD-05 were collected with the sample set. Acceptable precision [RER ( $1\sigma$ ) < 3] was demonstrated between the field duplicates and the original samples, BRA-BRGWC-45, BRA-PZ-58I, BRA-PZ-62I, BRA-BRGWC-33S and BRA-PZ-13S, respectively, with the following exception.

The RER of radium-226 in field duplicate pair BRA-PZ-13S/BRA-APE-FD-05 was greater than 3; therefore, based on professional and technical judgment, the radium-226 and radium-226+228 concentrations in the field duplicate pair were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	RER	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BRA-PZ-13S	Radium-226	1.88	NA	3.8	1.88	J	7
BRA-APE-FD-05	Radium-226	0.583	NA		0.583	J	7
BRA-PZ-13S	Radium-226+228	4.77	NA	NA	4.77	J	7
BRA-APE-FD-05	Radium-226+228	2.70	NA		2.70	J	7

pCi/L-picocuries per liter

RER-replicate error ratio

NA-not applicable

**1.11 Sensitivity**

The samples were reported to the MDCs. Elevated non-detect results were not reported.

**1.12 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

**DATA VALIDATION QUALIFIER DEFINITIONS  
AND INTERPRETATION KEY  
Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result.”
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec's Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

## Memorandum

Date: 19 July 2023  
To: Courtney Collins  
From: Ashley Wilson  
CC: K. Henderson  
Subject: **Stage 2A Data Validation - Level II Data Deliverables – GEL Laboratories, LLC Work Orders 624831 and 624832**

**SITE: Plant Branch CCR Groundwater Compliance AP-BCD IW-B Wells**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four groundwater samples, collected 5-6 June 2023, as part of the Plant Branch on-site sampling event.

The samples were analyzed at GEL Laboratories LLC, Charleston, SC, for the following analytical tests:

- Total and Dissolved Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Anions (Nitrate-Nitrogen (N), Chloride, Fluoride and Sulfate) by US EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Total Sulfide by SM 4500-S2-D
- Alkalinity by SM 2320B

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment, and the following documents:

US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and

the USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006).

The following samples were analyzed and reported in the laboratory reports:

Laboratory IDs	Client IDs
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4

Laboratory IDs	Client IDs
624831003	BRA-IW-B-3
624832001	BRA-PZ-74I

The samples were received at 1.0 and 2.0 degrees Celsius ( $^{\circ}\text{C}$ ), both within and outside of the EPA Region 4 criteria of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . Since the samples were received between  $0\text{-}6^{\circ}\text{C}$  and based on professional judgment, no qualifications were applied to the data. No sample preservation issues were noted by the laboratory.

624831: The relinquished by time and the received by time for the second sample transfer were inconsistent on the chain of custody (COC). The relinquishing time appears to not be documented in military time.

The field pH data and field ferrous iron data included in the laboratory report were not validated.

## 1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Field Duplicate
- ✓ Serial Dilution
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

## **1.1 Overall Assessment**

### **1.1.1 Completeness**

The metals data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### **1.1.2 Analysis Anomaly**

The laboratory noted that the contract required detection limit (CRDL) for calcium did not meet the laboratory specified acceptance criteria. Since the calcium results in the associated samples were significantly greater than the CRDL, based on professional and technical judgement, no qualifications were applied to the data.

The laboratory also noted that for the Inductively Coupled Plasma – Mass Spectrometry analysis, the Interference Check Sample (ICSA) solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

## **1.2 Holding Time**

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met.

## **1.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 2439851 and 2439741). Metals were not detected in the method blanks at or above the method detection limits (MDLs).

## **1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported, using samples BRA-IW-B-5 and BRA-PZ-74I. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.



### **1.5 Laboratory Control Sample (LCS)**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### **1.6 Field Duplicate**

A field duplicate was not submitted with the sample set.

### **1.7 Serial Dilution**

Two sample set specific serial dilutions were reported for metals using samples BRA-IW-B-5 and BRA-PZ-74I. The percent difference (%D) results were within the method specified acceptance criteria.

### **1.8 Sensitivity**

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

### **1.9 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

## **2.0 WET CHEMISTRY**

The samples were analyzed for anions by US EPA method 300.0, TDS by SM 2540C, total sulfide by SM 4500-S2-D and alkalinity by SM 2320B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Duplicate

- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

## **2.1 Overall Assessment**

### **2.1.1 Completeness**

The wet chemistry data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

### **2.1.2 Analysis Anomaly**

The laboratory noted that samples BRA-IW-B-5 and BRA-IW-B-3 were manually integrated to correctly position the baseline as set in the calibration standards for the anion analyses.

## **2.2 Holding Times**

The holding time for the nitrate-n analyses of a water sample is 48 hours from sample collection to analysis. The holding time for the fluoride, chloride, sulfate analyses of a water sample is 28 days from sample collection to analysis. The holding times for the TDS and total sulfide analysis of a water sample are 7 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met.

## **2.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for anions (batch 2439679). One method blank was reported for TDS (batch 2440211). One method blank was reported for total sulfide (batch 2440523). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

## **2.4 Matrix Spike**

One sample set specific MS was reported for anions, using sample BRA-IW-B-5. The recovery results were within the laboratory specified acceptance criteria, with the following exception.

The MS recovery of nitrate was low and outside of laboratory specified acceptance criteria. Therefore, the nondetect result for nitrate for sample BRA-IW-B-5 was UJ qualified as estimated below the MDL.

Batch MSs were also reported for alkalinity and sulfide. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/l)	Laboratory Flag	Validation Result (mg/l)	Validation Qualifier*	Reason Code**
BRA-IW-B-5-WG-20230605	Nitrate	0.066	U	0.066	UJ	4

mg/L- milligram per liter

U-not detected at or above the MDL

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\*Reason codes are defined in Attachment 2 at the end of this report

## 2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS was reported for each analytical batch per analysis. The recovery results were within the laboratory specified acceptance criteria.

## 2.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for anions, using sample BRA-IW-B-5. The RPD results were within the laboratory specified acceptance criteria.

Batch laboratory duplicates were reported for TDS, alkalinity and anions. Since the batch QC results do not affect the samples in this data set, qualifications were not applied to the data.

## 2.7 Field Duplicate

Field duplicates were not submitted with the sample set.

## 2.8 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

## 2.9 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

**ATTACHMENT 1**  
**DATA VALIDATION QUALIFIER DEFINITIONS**  
**AND INTERPRETATION KEY**  
**Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec’s Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

# FIELD SAMPLING REPORTS

Fall 2022

# Low-Flow Test Report:

**Test Date / Time:** 8/23/2022 9:25:17 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> BRGWA-2I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 56 ft <b>Total Depth:</b> 66.96 ft <b>Initial Depth to Water:</b> 12.55 ft	<b>Pump Type:</b> QED Bladder pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 59 ft <b>Estimated Total Volume Pumped:</b> 5.6 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 125 ml/min <b>Final Draw Down:</b> 12 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850751
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## Test Notes:

Cloudy, sample time-1010

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
8/23/2022 9:25 AM	00:00	7.27 pH	22.54 °C	11.00 µS/cm	8.44 mg/L	2.61 NTU	253.6 mV	12.55 ft	125.00 ml/min
8/23/2022 9:30 AM	05:00	6.75 pH	21.94 °C	120.34 µS/cm	1.91 mg/L	1.77 NTU	89.6 mV	13.10 ft	125.00 ml/min
8/23/2022 9:35 AM	10:00	6.55 pH	20.93 °C	116.96 µS/cm	1.58 mg/L	2.05 NTU	84.3 mV	13.50 ft	125.00 ml/min
8/23/2022 9:40 AM	15:00	6.61 pH	20.77 °C	117.42 µS/cm	1.37 mg/L	1.69 NTU	86.9 mV	13.50 ft	125.00 ml/min
8/23/2022 9:45 AM	20:00	6.64 pH	20.79 °C	117.44 µS/cm	1.33 mg/L	1.83 NTU	82.8 mV	13.50 ft	125.00 ml/min
8/23/2022 9:50 AM	25:00	6.64 pH	20.75 °C	117.74 µS/cm	1.26 mg/L	1.12 NTU	86.9 mV	13.50 ft	125.00 ml/min
8/23/2022 9:55 AM	30:00	6.65 pH	20.81 °C	117.27 µS/cm	1.16 mg/L	1.65 NTU	82.4 mV	13.50 ft	125.00 ml/min
8/23/2022 10:00 AM	35:00	6.66 pH	20.80 °C	117.44 µS/cm	1.05 mg/L	1.27 NTU	81.8 mV	13.50 ft	125.00 ml/min
8/23/2022 10:05 AM	40:00	6.66 pH	20.84 °C	118.00 µS/cm	0.97 mg/L	1.08 NTU	86.2 mV	13.50 ft	125.00 ml/min
8/23/2022 10:10 AM	45:00	6.67 pH	20.93 °C	118.47 µS/cm	0.91 mg/L	1.22 NTU	81.8 mV	13.50 ft	125.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 8/23/2022 10:30:04 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: BRGWA-2S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 37 ft</b> <b>Total Depth: 47.39 ft</b> <b>Initial Depth to Water: 12.72 ft</b>	<b>Pump Type: QED Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 42 ft</b> <b>Estimated Total Volume Pumped: 5.6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Cloudy, sample time-1055

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
8/23/2022 10:30 AM	00:00	6.71 pH	22.32 °C	122.72 µS/cm	1.24 mg/L	1.11 NTU	82.0 mV	12.72 ft	225.00 ml/min
8/23/2022 10:35 AM	05:00	6.04 pH	20.71 °C	56.96 µS/cm	2.13 mg/L	0.89 NTU	61.3 mV	12.80 ft	225.00 ml/min
8/23/2022 10:40 AM	10:00	5.95 pH	20.40 °C	57.02 µS/cm	1.77 mg/L	0.64 NTU	58.6 mV	12.80 ft	225.00 ml/min
8/23/2022 10:45 AM	15:00	5.95 pH	20.53 °C	55.52 µS/cm	2.87 mg/L	0.55 NTU	65.0 mV	12.80 ft	225.00 ml/min
8/23/2022 10:50 AM	20:00	5.94 pH	20.57 °C	54.65 µS/cm	2.77 mg/L	0.83 NTU	66.6 mV	12.80 ft	225.00 ml/min
8/23/2022 10:55 AM	25:00	5.95 pH	20.61 °C	55.77 µS/cm	3.00 mg/L	0.48 NTU	68.3 mV	12.80 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:40:06 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: BRGWA-5I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.82 ft</b> <b>Total Depth: 63.82 ft</b> <b>Initial Depth to Water: 12.08 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 8.3 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 275 ml/min</b> <b>Final Draw Down: 3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728566</b>
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## Test Notes:

Sample time 1015. Overcast 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/23/2022 9:40 AM	00:00	6.25 pH	19.62 °C	141.33 µS/cm	5.44 mg/L	5.23 NTU	81.6 mV	12.08 ft	275.00 ml/min
8/23/2022 9:45 AM	05:00	6.25 pH	19.61 °C	142.04 µS/cm	5.43 mg/L	5.19 NTU	71.4 mV	12.30 ft	275.00 ml/min
8/23/2022 9:50 AM	10:00	6.25 pH	19.55 °C	141.67 µS/cm	5.45 mg/L	5.11 NTU	67.6 mV	12.30 ft	275.00 ml/min
8/23/2022 9:55 AM	15:00	6.25 pH	19.59 °C	141.73 µS/cm	5.46 mg/L	4.10 NTU	66.5 mV	12.30 ft	275.00 ml/min
8/23/2022 10:00 AM	20:00	6.24 pH	19.14 °C	141.26 µS/cm	5.45 mg/L	4.05 NTU	65.7 mV	12.30 ft	275.00 ml/min
8/23/2022 10:05 AM	25:00	6.24 pH	18.97 °C	141.33 µS/cm	5.47 mg/L	2.77 NTU	65.2 mV	12.30 ft	275.00 ml/min
8/23/2022 10:10 AM	30:00	6.24 pH	18.97 °C	141.26 µS/cm	5.47 mg/L	3.75 NTU	64.7 mV	12.30 ft	275.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:26:43 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: BRGWA-5S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33 ft</b> <b>Total Depth: 43.01 ft</b> <b>Initial Depth to Water: 12.13 ft</b>	<b>Pump Type: Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 38 ft</b> <b>Estimated Total Volume Pumped: 5.3 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 1.6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1000 on 8-23-22. Cloudy 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/23/2022 9:26 AM	00:00	6.34 pH	21.42 °C	132.45 µS/cm	3.38 mg/L	10.00 NTU	84.2 mV	12.13 ft	150.00 ml/min
8/23/2022 9:31 AM	05:00	6.28 pH	20.31 °C	125.12 µS/cm	2.22 mg/L	3.50 NTU	75.2 mV	12.25 ft	150.00 ml/min
8/23/2022 9:36 AM	10:00	6.29 pH	20.13 °C	129.89 µS/cm	1.97 mg/L	3.90 NTU	76.2 mV	12.25 ft	150.00 ml/min
8/23/2022 9:41 AM	15:00	6.33 pH	20.14 °C	132.68 µS/cm	1.79 mg/L	3.80 NTU	73.3 mV	12.25 ft	150.00 ml/min
8/23/2022 9:46 AM	20:00	6.34 pH	20.10 °C	134.01 µS/cm	1.70 mg/L	2.70 NTU	74.4 mV	12.25 ft	150.00 ml/min
8/23/2022 9:51 AM	25:00	6.32 pH	20.06 °C	133.97 µS/cm	1.66 mg/L	3.10 NTU	84.7 mV	12.25 ft	150.00 ml/min
8/23/2022 9:56 AM	30:00	6.36 pH	20.09 °C	134.88 µS/cm	1.63 mg/L	3.00 NTU	74.7 mV	12.25 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/23/2022 9:20:13 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

<b>Location Name: BRGWA-6S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.9 ft</b> <b>Total Depth: 52.9 ft</b> <b>Initial Depth to Water: 26.95 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 6600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 220 ml/min</b> <b>Final Draw Down: 0.57 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883536</b>
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## Test Notes:

Sampled at 0950. Mostly cloudy 75 degrees

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/23/2022 9:20 AM	00:00	6.49 pH	20.39 °C	57.64 µS/cm	6.90 mg/L	4.05 NTU	84.9 mV	26.95 ft	220.00 ml/min
8/23/2022 9:25 AM	05:00	6.46 pH	20.30 °C	56.89 µS/cm	6.94 mg/L	2.27 NTU	65.6 mV	27.33 ft	220.00 ml/min
8/23/2022 9:30 AM	10:00	6.50 pH	20.21 °C	56.29 µS/cm	6.92 mg/L	1.60 NTU	67.8 mV	27.50 ft	220.00 ml/min
8/23/2022 9:35 AM	15:00	6.52 pH	20.11 °C	56.40 µS/cm	6.94 mg/L	1.66 NTU	69.9 mV	27.52 ft	220.00 ml/min
8/23/2022 9:40 AM	20:00	6.49 pH	20.05 °C	56.54 µS/cm	6.86 mg/L	1.85 NTU	72.6 mV	27.52 ft	220.00 ml/min
8/23/2022 9:45 AM	25:00	6.51 pH	20.04 °C	56.73 µS/cm	6.95 mg/L	1.74 NTU	75.2 mV	27.52 ft	220.00 ml/min
8/23/2022 9:50 AM	30:00	6.51 pH	20.04 °C	56.92 µS/cm	7.04 mg/L	1.71 NTU	77.0 mV	27.52 ft	220.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/23/2022 11:11:29 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: BRGWA-12I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 70 ft</b> <b>Total Depth: 80.54 ft</b> <b>Initial Depth to Water: 48.87 ft</b>	<b>Pump Type: Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 75 ft</b> <b>Estimated Total Volume Pumped: 4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 40 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1143 on 8-23-22. Cloudy 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/23/2022 11:11 AM	00:00	6.98 pH	28.18 °C	0.25 µS/cm	7.09 mg/L	5.00 NTU	73.9 mV	48.87 ft	200.00 ml/min
8/23/2022 11:16 AM	05:00	6.57 pH	23.19 °C	129.28 µS/cm	4.08 mg/L	2.40 NTU	111.0 mV	50.10 ft	200.00 ml/min
8/23/2022 11:21 AM	10:00	6.34 pH	22.00 °C	137.83 µS/cm	2.53 mg/L	1.60 NTU	144.5 mV	51.20 ft	200.00 ml/min
8/23/2022 11:26 AM	15:00	6.41 pH	22.76 °C	135.17 µS/cm	2.67 mg/L	2.20 NTU	115.3 mV	51.60 ft	120.00 ml/min
8/23/2022 11:31 AM	20:00	6.39 pH	23.20 °C	134.45 µS/cm	2.55 mg/L	2.00 NTU	116.8 mV	52.00 ft	120.00 ml/min
8/23/2022 11:36 AM	25:00	6.39 pH	23.67 °C	132.75 µS/cm	2.60 mg/L	1.70 NTU	118.0 mV	52.10 ft	100.00 ml/min
8/23/2022 11:41 AM	30:00	6.39 pH	23.72 °C	131.58 µS/cm	2.56 mg/L	1.30 NTU	119.2 mV	52.20 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 8/23/2022 12:37:48 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** H Auld

<b>Location Name: BRGWA-12S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 51 ft</b> <b>Total Depth: 61.01 ft</b> <b>Initial Depth to Water: 49.1 ft</b>	<b>Pump Type: Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 55 ft</b> <b>Estimated Total Volume Pumped: 18.3 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1338 on 8-23-22. Cloudy 80s. FB-01 here at 1315.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/23/2022 12:37 PM	00:00	7.26 pH	32.85 °C	64.77 µS/cm	5.52 mg/L	10.00 NTU	68.1 mV	49.10 ft	300.00 ml/min
8/23/2022 12:42 PM	05:00	5.81 pH	21.83 °C	65.29 µS/cm	6.74 mg/L	2.70 NTU	123.5 mV	49.60 ft	300.00 ml/min
8/23/2022 12:47 PM	10:00	5.85 pH	21.22 °C	70.24 µS/cm	6.77 mg/L	2.70 NTU	131.0 mV	49.60 ft	300.00 ml/min
8/23/2022 12:52 PM	15:00	5.87 pH	21.07 °C	72.14 µS/cm	6.87 mg/L	1.60 NTU	134.6 mV	49.60 ft	300.00 ml/min
8/23/2022 12:57 PM	20:00	5.91 pH	20.97 °C	72.65 µS/cm	6.90 mg/L	1.65 NTU	134.8 mV	49.60 ft	300.00 ml/min
8/23/2022 1:02 PM	25:00	5.89 pH	20.98 °C	72.89 µS/cm	6.89 mg/L	1.70 NTU	137.4 mV	49.60 ft	300.00 ml/min
8/23/2022 1:07 PM	30:00	5.91 pH	20.92 °C	72.92 µS/cm	6.91 mg/L	2.30 NTU	136.5 mV	49.60 ft	300.00 ml/min
8/23/2022 1:12 PM	35:00	5.88 pH	20.94 °C	73.15 µS/cm	6.91 mg/L	1.60 NTU	138.8 mV	49.60 ft	300.00 ml/min
8/23/2022 1:17 PM	40:00	5.83 pH	20.90 °C	73.08 µS/cm	6.88 mg/L	1.70 NTU	141.1 mV	49.60 ft	300.00 ml/min
8/23/2022 1:22 PM	45:00	5.88 pH	20.93 °C	73.02 µS/cm	6.90 mg/L	0.80 NTU	139.1 mV	49.60 ft	300.00 ml/min
8/23/2022 1:27 PM	50:00	5.86 pH	20.98 °C	73.08 µS/cm	6.89 mg/L	0.80 NTU	174.9 mV	49.60 ft	300.00 ml/min
8/23/2022 1:32 PM	55:00	5.90 pH	21.28 °C	73.87 µS/cm	6.93 mg/L	1.10 NTU	138.9 mV	49.60 ft	300.00 ml/min
8/23/2022 1:37 PM	01:00:00	5.90 pH	21.51 °C	74.95 µS/cm	6.96 mg/L	1.00 NTU	140.6 mV	49.60 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 8/23/2022 12:36:53 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: BRGWA-23S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33.8 ft</b> <b>Total Depth: 43.8 ft</b> <b>Initial Depth to Water: 39.18 ft</b>	<b>Pump Type: QED Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 40 ft</b> <b>Estimated Total Volume Pumped: 8.56 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 125 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Cloudy, sample time-1345, WL in screen, 3 well volumes purged. Top of Pump-39.3, WL below top of pump

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
8/23/2022 12:36 PM	00:00	5.67 pH	33.83 °C	0.07 µS/cm	6.84 mg/L	6.93 NTU	92.4 mV	39.18 ft	125.00 ml/min
8/23/2022 12:39 PM	02:40	5.23 pH	34.15 °C	51.22 µS/cm	6.45 mg/L	4.11 NTU	107.3 mV	39.30 ft	125.00 ml/min
8/23/2022 12:42 PM	05:45	5.81 pH	27.21 °C	112.66 µS/cm	6.96 mg/L	2.59 NTU	80.2 mV	39.30 ft	125.00 ml/min
8/23/2022 12:45 PM	08:15	5.72 pH	25.99 °C	106.42 µS/cm	6.41 mg/L	2.61 NTU	81.2 mV	39.30 ft	125.00 ml/min
8/23/2022 12:50 PM	13:15	5.69 pH	25.74 °C	101.85 µS/cm	5.80 mg/L	2.07 NTU	81.0 mV	39.30 ft	125.00 ml/min
8/23/2022 12:55 PM	18:15	5.67 pH	25.43 °C	99.50 µS/cm	5.45 mg/L	1.89 NTU	84.7 mV	39.30 ft	125.00 ml/min
8/23/2022 1:00 PM	23:15	5.67 pH	25.44 °C	98.16 µS/cm	5.23 mg/L	3.78 NTU	83.6 mV	39.30 ft	125.00 ml/min
8/23/2022 1:05 PM	28:15	5.66 pH	25.29 °C	97.64 µS/cm	5.20 mg/L	3.92 NTU	85.0 mV	39.30 ft	125.00 ml/min
8/23/2022 1:10 PM	33:15	5.64 pH	25.31 °C	97.37 µS/cm	5.13 mg/L	4.04 NTU	86.8 mV	39.30 ft	125.00 ml/min
8/23/2022 1:15 PM	38:15	5.66 pH	25.14 °C	97.11 µS/cm	5.11 mg/L	4.33 NTU	87.3 mV	39.30 ft	125.00 ml/min
8/23/2022 1:20 PM	43:15	5.65 pH	25.21 °C	97.91 µS/cm	5.04 mg/L	3.21 NTU	90.8 mV	39.30 ft	125.00 ml/min
8/23/2022 1:25 PM	48:15	5.65 pH	25.51 °C	97.71 µS/cm	5.00 mg/L	3.58 NTU	88.4 mV	39.30 ft	125.00 ml/min
8/23/2022 1:30 PM	53:15	5.65 pH	25.69 °C	97.51 µS/cm	4.93 mg/L	3.21 NTU	89.2 mV	39.30 ft	125.00 ml/min
8/23/2022 1:35 PM	58:15	5.63 pH	25.80 °C	97.60 µS/cm	4.79 mg/L	3.33 NTU	91.0 mV	39.30 ft	125.00 ml/min
8/23/2022 1:40 PM	01:03:15	5.65 pH	26.08 °C	98.56 µS/cm	4.74 mg/L	3.68 NTU	90.2 mV	39.30 ft	125.00 ml/min



8/23/2022 1:45 PM	01:08:29	5.66 pH	26.28 °C	97.16 µS/cm	4.74 mg/L	3.25 NTU	89.4 mV	39.30 ft	125.00 ml/min
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**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/23/2022 2:23:21 PM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: BRGWC-25I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14 ft</b> <b>Total Depth: 24.41 ft</b> <b>Initial Depth to Water: 11.08 ft</b>	<b>Pump Type: Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 19 ft</b> <b>Estimated Total Volume Pumped: 23.4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 1.4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1541 on 8-23-22. Cloudy 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/23/2022 2:23 PM	00:00	6.60 pH	29.35 °C	338.75 µS/cm	7.13 mg/L	10.00 NTU	88.6 mV	11.08 ft	300.00 ml/min
8/23/2022 2:28 PM	05:00	6.10 pH	20.60 °C	397.01 µS/cm	0.97 mg/L	21.00 NTU	114.4 mV	11.20 ft	300.00 ml/min
8/23/2022 2:33 PM	10:00	6.08 pH	20.17 °C	415.46 µS/cm	0.18 mg/L	9.70 NTU	127.0 mV	11.20 ft	300.00 ml/min
8/23/2022 2:38 PM	15:00	6.10 pH	20.22 °C	415.88 µS/cm	0.12 mg/L	5.90 NTU	160.7 mV	11.20 ft	300.00 ml/min
8/23/2022 2:43 PM	20:00	6.10 pH	20.13 °C	419.81 µS/cm	0.09 mg/L	4.70 NTU	130.3 mV	11.20 ft	300.00 ml/min
8/23/2022 2:48 PM	25:00	6.11 pH	20.15 °C	419.92 µS/cm	0.09 mg/L	3.50 NTU	128.2 mV	11.20 ft	300.00 ml/min
8/23/2022 2:53 PM	30:00	6.10 pH	20.09 °C	417.91 µS/cm	0.08 mg/L	2.90 NTU	159.0 mV	11.20 ft	300.00 ml/min
8/23/2022 2:58 PM	35:00	6.09 pH	20.13 °C	418.35 µS/cm	0.07 mg/L	2.60 NTU	159.6 mV	11.20 ft	300.00 ml/min
8/23/2022 3:03 PM	40:00	6.11 pH	20.09 °C	418.44 µS/cm	0.07 mg/L	2.55 NTU	158.8 mV	11.20 ft	300.00 ml/min
8/23/2022 3:08 PM	45:00	6.11 pH	20.04 °C	421.83 µS/cm	0.07 mg/L	2.55 NTU	126.9 mV	11.20 ft	300.00 ml/min
8/23/2022 3:13 PM	50:00	6.12 pH	20.01 °C	418.78 µS/cm	0.06 mg/L	1.90 NTU	157.0 mV	11.20 ft	300.00 ml/min
8/23/2022 3:18 PM	55:00	6.11 pH	20.04 °C	418.77 µS/cm	0.06 mg/L	1.60 NTU	157.3 mV	11.20 ft	300.00 ml/min
8/23/2022 3:23 PM	01:00:00	6.10 pH	20.04 °C	422.33 µS/cm	0.06 mg/L	1.60 NTU	126.5 mV	11.20 ft	300.00 ml/min
8/23/2022 3:25 PM	01:02:15	6.12 pH	20.53 °C	394.43 µS/cm	0.29 mg/L	1.60 NTU	123.0 mV	11.20 ft	300.00 ml/min
8/23/2022 3:30 PM	01:07:15	6.10 pH	20.17 °C	404.39 µS/cm	0.06 mg/L	1.40 NTU	126.8 mV	11.20 ft	300.00 ml/min

8/23/2022 3:35 PM	01:12:15	6.12 pH	20.06 °C	419.50 µS/cm	0.07 mg/L	1.60 NTU	157.5 mV	11.20 ft	300.00 ml/min
8/23/2022 3:40 PM	01:17:15	6.11 pH	20.09 °C	422.59 µS/cm	0.07 mg/L	1.60 NTU	126.2 mV	11.20 ft	300.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 9:37:24 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

<b>Location Name: BRGWC-271</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14 ft</b> <b>Total Depth: 24 ft</b> <b>Initial Depth to Water: 10.45 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 19 ft</b> <b>Estimated Total Volume Pumped: 8750 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.05 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883536</b>
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## Test Notes:

Sampled at 1012. Mostly cloudy 74 degrees. FB-03 taken here.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/25/2022 9:37 AM	00:00	6.55 pH	22.13 °C	419.56 µS/cm	4.51 mg/L	6.08 NTU	135.2 mV	10.50 ft	250.00 ml/min
8/25/2022 9:42 AM	05:00	5.92 pH	20.57 °C	469.95 µS/cm	2.41 mg/L	2.97 NTU	116.7 mV	10.50 ft	250.00 ml/min
8/25/2022 9:47 AM	10:00	5.94 pH	20.45 °C	446.36 µS/cm	1.91 mg/L	2.55 NTU	114.2 mV	10.50 ft	250.00 ml/min
8/25/2022 9:52 AM	15:00	5.99 pH	20.39 °C	446.13 µS/cm	1.92 mg/L	1.90 NTU	111.0 mV	10.50 ft	250.00 ml/min
8/25/2022 9:57 AM	20:00	5.99 pH	20.34 °C	445.75 µS/cm	1.68 mg/L	1.81 NTU	109.2 mV	10.50 ft	250.00 ml/min
8/25/2022 10:02 AM	25:00	6.01 pH	20.30 °C	445.96 µS/cm	1.73 mg/L	1.66 NTU	108.3 mV	10.50 ft	250.00 ml/min
8/25/2022 10:07 AM	30:00	6.02 pH	20.33 °C	446.59 µS/cm	1.93 mg/L	1.58 NTU	106.8 mV	10.50 ft	250.00 ml/min
8/25/2022 10:12 AM	35:00	6.03 pH	20.30 °C	447.74 µS/cm	1.73 mg/L	1.45 NTU	111.1 mV	10.50 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/24/2022 3:57:10 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: BRGWC-29I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13 ft</b> <b>Total Depth: 23.63 ft</b> <b>Initial Depth to Water: 10.68 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 18 ft</b> <b>Estimated Total Volume Pumped: 21 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728566</b>
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## Test Notes:

Sample time 1710. Sunny 90s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/24/2022 3:57 PM	00:00	4.31 pH	22.74 °C	476.02 µS/cm	0.22 mg/L	1.83 NTU	87.6 mV	10.68 ft	300.00 ml/min
8/24/2022 4:02 PM	05:00	4.38 pH	21.46 °C	486.92 µS/cm	0.11 mg/L	1.37 NTU	91.1 mV	10.90 ft	300.00 ml/min
8/24/2022 4:07 PM	10:00	4.39 pH	21.27 °C	488.65 µS/cm	0.10 mg/L	1.47 NTU	90.2 mV	10.90 ft	300.00 ml/min
8/24/2022 4:12 PM	15:00	4.39 pH	21.37 °C	487.61 µS/cm	0.09 mg/L	1.16 NTU	84.2 mV	10.90 ft	300.00 ml/min
8/24/2022 4:17 PM	20:00	4.39 pH	21.24 °C	485.60 µS/cm	0.09 mg/L	1.01 NTU	88.5 mV	10.90 ft	300.00 ml/min
8/24/2022 4:22 PM	25:00	4.39 pH	21.18 °C	484.10 µS/cm	0.09 mg/L	1.28 NTU	83.0 mV	10.90 ft	300.00 ml/min
8/24/2022 4:27 PM	30:00	4.39 pH	21.11 °C	483.39 µS/cm	0.09 mg/L	1.95 NTU	87.5 mV	10.90 ft	300.00 ml/min
8/24/2022 4:32 PM	35:00	4.39 pH	21.11 °C	482.18 µS/cm	0.08 mg/L	1.02 NTU	82.5 mV	10.90 ft	300.00 ml/min
8/24/2022 4:37 PM	40:00	4.39 pH	21.11 °C	481.52 µS/cm	0.08 mg/L	0.83 NTU	82.0 mV	10.90 ft	300.00 ml/min
8/24/2022 4:42 PM	45:00	4.39 pH	21.10 °C	480.62 µS/cm	0.08 mg/L	0.96 NTU	86.5 mV	10.90 ft	300.00 ml/min
8/24/2022 4:47 PM	50:00	4.39 pH	21.07 °C	480.17 µS/cm	0.08 mg/L	1.03 NTU	81.9 mV	10.90 ft	300.00 ml/min
8/24/2022 4:52 PM	55:00	4.39 pH	21.15 °C	479.62 µS/cm	0.08 mg/L	1.02 NTU	81.8 mV	10.90 ft	300.00 ml/min
8/24/2022 4:57 PM	01:00:00	4.39 pH	21.12 °C	479.19 µS/cm	0.09 mg/L	0.99 NTU	86.4 mV	10.90 ft	300.00 ml/min
8/24/2022 5:02 PM	01:05:00	4.39 pH	21.06 °C	478.58 µS/cm	0.09 mg/L	0.96 NTU	82.4 mV	10.90 ft	300.00 ml/min
8/24/2022 5:07 PM	01:10:00	4.39 pH	21.10 °C	479.00 µS/cm	0.09 mg/L	0.98 NTU	87.1 mV	10.90 ft	300.00 ml/min

**Samples**

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 8/24/2022 3:24:40 PM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

<b>Location Name: BRGWC-30I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 12.3 ft</b> <b>Total Depth: 22.35 ft</b> <b>Initial Depth to Water: 4.82 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 17 ft</b> <b>Estimated Total Volume Pumped: 11250 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.17 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883536</b>
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## Test Notes:

Sampled at 1609. Partly cloudy 85 degrees.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/24/2022 3:24 PM	00:00	6.37 pH	25.98 °C	1,281.3 µS/cm	4.08 mg/L	248.00 NTU	88.0 mV	4.93 ft	250.00 ml/min
8/24/2022 3:29 PM	05:00	6.36 pH	22.97 °C	1,417.9 µS/cm	1.87 mg/L	122.00 NTU	91.6 mV	4.99 ft	250.00 ml/min
8/24/2022 3:34 PM	10:00	6.36 pH	24.01 °C	1,622.4 µS/cm	1.02 mg/L	107.00 NTU	96.8 mV	4.99 ft	250.00 ml/min
8/24/2022 3:39 PM	15:00	6.35 pH	24.33 °C	1,515.2 µS/cm	0.80 mg/L	80.40 NTU	96.0 mV	4.99 ft	250.00 ml/min
8/24/2022 3:44 PM	20:00	6.38 pH	22.04 °C	1,526.4 µS/cm	1.07 mg/L	50.90 NTU	98.9 mV	4.99 ft	250.00 ml/min
8/24/2022 3:49 PM	25:00	6.39 pH	21.46 °C	1,592.9 µS/cm	1.12 mg/L	33.80 NTU	99.8 mV	4.99 ft	250.00 ml/min
8/24/2022 3:54 PM	30:00	6.39 pH	21.37 °C	1,593.2 µS/cm	1.13 mg/L	24.20 NTU	101.0 mV	4.99 ft	250.00 ml/min
8/24/2022 3:59 PM	35:00	6.39 pH	21.32 °C	1,594.7 µS/cm	1.00 mg/L	14.50 NTU	101.6 mV	4.99 ft	250.00 ml/min
8/24/2022 4:04 PM	40:00	6.39 pH	21.24 °C	1,592.7 µS/cm	0.99 mg/L	9.33 NTU	102.5 mV	4.99 ft	250.00 ml/min
8/24/2022 4:09 PM	45:00	6.38 pH	21.24 °C	1,589.2 µS/cm	1.00 mg/L	4.27 NTU	102.6 mV	4.99 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 11:20:35 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

<b>Location Name: BRGWC-32S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 35 ft</b> <b>Total Depth: 45 ft</b> <b>Initial Depth to Water: 40.76 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 42 ft</b> <b>Estimated Total Volume Pumped: 12750 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 170 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883536</b>
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## Test Notes:

Sampled at 1235. Cloudy 79 degrees.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/25/2022 11:20 AM	00:00	6.08 pH	21.14 °C	541.62 µS/cm	5.78 mg/L	5.82 NTU	98.7 mV	40.76 ft	170.00 ml/min
8/25/2022 11:25 AM	05:00	6.04 pH	20.53 °C	543.87 µS/cm	3.97 mg/L	7.12 NTU	100.4 mV	40.76 ft	170.00 ml/min
8/25/2022 11:30 AM	10:00	6.08 pH	20.39 °C	562.30 µS/cm	4.03 mg/L	8.84 NTU	107.4 mV	40.76 ft	170.00 ml/min
8/25/2022 11:35 AM	15:00	6.09 pH	20.31 °C	565.64 µS/cm	3.92 mg/L	7.34 NTU	108.4 mV	40.76 ft	170.00 ml/min
8/25/2022 11:40 AM	20:00	6.08 pH	20.34 °C	568.46 µS/cm	3.68 mg/L	6.73 NTU	110.1 mV	40.76 ft	170.00 ml/min
8/25/2022 11:45 AM	25:00	6.10 pH	20.35 °C	572.39 µS/cm	3.65 mg/L	4.44 NTU	105.8 mV	40.76 ft	170.00 ml/min
8/25/2022 11:50 AM	30:00	6.10 pH	20.34 °C	574.19 µS/cm	3.63 mg/L	1.82 NTU	112.1 mV	40.76 ft	170.00 ml/min
8/25/2022 11:55 AM	35:00	6.11 pH	20.30 °C	574.15 µS/cm	3.65 mg/L	1.58 NTU	108.0 mV	40.76 ft	170.00 ml/min
8/25/2022 12:00 PM	40:00	6.11 pH	20.43 °C	575.80 µS/cm	3.63 mg/L	1.41 NTU	114.8 mV	40.76 ft	170.00 ml/min
8/25/2022 12:05 PM	45:00	6.10 pH	20.41 °C	375.87 µS/cm	3.65 mg/L	1.47 NTU	116.9 mV	40.76 ft	170.00 ml/min
8/25/2022 12:10 PM	50:00	6.11 pH	20.39 °C	576.53 µS/cm	3.62 mg/L	1.33 NTU	118.4 mV	40.76 ft	170.00 ml/min
8/25/2022 12:15 PM	55:00	6.11 pH	20.21 °C	581.26 µS/cm	3.54 mg/L	1.56 NTU	120.6 mV	40.76 ft	170.00 ml/min
8/25/2022 12:20 PM	01:00:00	6.13 pH	20.44 °C	578.97 µS/cm	4.14 mg/L	1.61 NTU	121.5 mV	40.76 ft	170.00 ml/min
8/25/2022 12:25 PM	01:05:00	6.06 pH	20.41 °C	575.66 µS/cm	2.62 mg/L	1.24 NTU	122.2 mV	40.76 ft	170.00 ml/min
8/25/2022 12:30 PM	01:10:00	6.06 pH	20.26 °C	575.60 µS/cm	2.57 mg/L	0.91 NTU	115.0 mV	40.76 ft	170.00 ml/min



8/25/2022 12:35 PM	01:15:00	6.06 pH	20.27 °C	574.39 µS/cm	2.79 mg/L	0.88 NTU	122.1 mV	40.76 ft	170.00 ml/min
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**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 8/25/2022 9:40:35 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> BRGWC-45 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 50 ft <b>Total Depth:</b> 60.45 ft <b>Initial Depth to Water:</b> 15.17 ft	<b>Pump Type:</b> QED Bladder pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 55 ft <b>Estimated Total Volume Pumped:</b> 6.7 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 225 ml/min <b>Final Draw Down:</b> 4 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850751
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## Test Notes:

Cloudy, sample time -1010, FD-03 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/25/2022 9:40 AM	00:00	7.05 pH	24.18 °C	13.73 µS/cm	8.36 mg/L	10.00 NTU	252.5 mV	15.17 ft	225.00 ml/min
8/25/2022 9:45 AM	05:00	5.79 pH	22.27 °C	273.11 µS/cm	0.75 mg/L	9.39 NTU	101.7 mV	15.50 ft	225.00 ml/min
8/25/2022 9:50 AM	10:00	5.72 pH	21.92 °C	275.09 µS/cm	0.46 mg/L	8.15 NTU	102.2 mV	15.50 ft	225.00 ml/min
8/25/2022 9:55 AM	15:00	5.74 pH	21.85 °C	272.73 µS/cm	0.38 mg/L	8.08 NTU	91.8 mV	15.50 ft	225.00 ml/min
8/25/2022 10:00 AM	20:00	5.73 pH	21.86 °C	275.34 µS/cm	0.28 mg/L	4.62 NTU	94.2 mV	15.50 ft	225.00 ml/min
8/25/2022 10:05 AM	25:00	5.74 pH	21.87 °C	272.52 µS/cm	0.25 mg/L	2.69 NTU	84.8 mV	15.50 ft	225.00 ml/min
8/25/2022 10:10 AM	30:00	5.74 pH	21.91 °C	272.83 µS/cm	0.24 mg/L	2.84 NTU	77.7 mV	15.50 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/23/2022 2:40:45 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: BRGWC-47</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 82 ft</b> <b>Total Depth: 92 ft</b> <b>Initial Depth to Water: 27.75 ft</b>	<b>Pump Type: QED Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 87 ft</b> <b>Estimated Total Volume Pumped: 6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Sunny, sample time-1520

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
8/23/2022 2:40 PM	00:00	6.15 pH	41.42 °C	0.20 µS/cm	5.90 mg/L	6.22 NTU	100.2 mV	27.75 ft	150.00 ml/min
8/23/2022 2:45 PM	05:00	5.82 pH	29.41 °C	1,539.2 µS/cm	2.08 mg/L	5.31 NTU	20.4 mV	28.00 ft	150.00 ml/min
8/23/2022 2:50 PM	10:00	5.64 pH	23.77 °C	1,608.1 µS/cm	0.45 mg/L	4.44 NTU	38.9 mV	28.30 ft	150.00 ml/min
8/23/2022 2:55 PM	15:00	5.63 pH	23.48 °C	1,630.8 µS/cm	0.34 mg/L	4.18 NTU	49.5 mV	28.30 ft	150.00 ml/min
8/23/2022 3:00 PM	20:00	5.62 pH	23.26 °C	1,628.6 µS/cm	0.30 mg/L	1.92 NTU	54.4 mV	28.40 ft	150.00 ml/min
8/23/2022 3:05 PM	25:00	5.61 pH	23.35 °C	1,637.8 µS/cm	0.28 mg/L	1.73 NTU	57.8 mV	28.40 ft	150.00 ml/min
8/23/2022 3:10 PM	30:00	5.61 pH	23.30 °C	1,639.2 µS/cm	0.28 mg/L	1.57 NTU	57.4 mV	28.40 ft	150.00 ml/min
8/23/2022 3:15 PM	35:00	5.61 pH	23.16 °C	1,642.1 µS/cm	0.29 mg/L	2.01 NTU	52.5 mV	28.40 ft	150.00 ml/min
8/23/2022 3:20 PM	40:00	5.61 pH	23.61 °C	1,647.4 µS/cm	0.30 mg/L	1.42 NTU	45.0 mV	28.40 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 8/24/2022 2:06:22 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> BRGWC-50 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 55 ft <b>Total Depth:</b> 65 ft <b>Initial Depth to Water:</b> 38.3 ft	<b>Pump Type:</b> QED Bladder pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 60 ft <b>Estimated Total Volume Pumped:</b> 11.2 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 250 ml/min <b>Final Draw Down:</b> 2.4 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850751
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## Test Notes:

Cloudy, sample time -1451

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/24/2022 2:06 PM	00:00	4.49 pH	40.44 °C	2.08 µS/cm	6.17 mg/L	0.96 NTU	268.6 mV	38.30 ft	250.00 ml/min
8/24/2022 2:11 PM	05:00	5.06 pH	23.11 °C	1,490.6 µS/cm	0.89 mg/L	1.02 NTU	186.0 mV	38.50 ft	250.00 ml/min
8/24/2022 2:16 PM	10:00	5.04 pH	22.13 °C	1,530.5 µS/cm	0.37 mg/L	1.11 NTU	188.8 mV	38.50 ft	250.00 ml/min
8/24/2022 2:21 PM	15:00	5.04 pH	21.91 °C	1,533.8 µS/cm	0.25 mg/L	1.06 NTU	184.0 mV	38.50 ft	250.00 ml/min
8/24/2022 2:26 PM	20:00	5.04 pH	21.86 °C	1,540.8 µS/cm	0.23 mg/L	0.75 NTU	182.8 mV	38.50 ft	250.00 ml/min
8/24/2022 2:31 PM	25:00	5.03 pH	21.82 °C	1,545.3 µS/cm	0.22 mg/L	0.94 NTU	185.8 mV	38.50 ft	250.00 ml/min
8/24/2022 2:36 PM	30:00	5.02 pH	21.81 °C	1,541.9 µS/cm	0.23 mg/L	0.23 NTU	181.8 mV	38.50 ft	250.00 ml/min
8/24/2022 2:41 PM	35:00	5.02 pH	21.74 °C	1,544.3 µS/cm	0.23 mg/L	0.37 NTU	181.1 mV	38.50 ft	250.00 ml/min
8/24/2022 2:46 PM	40:00	5.01 pH	21.75 °C	1,542.8 µS/cm	0.23 mg/L	0.43 NTU	184.2 mV	38.50 ft	250.00 ml/min
8/24/2022 2:51 PM	45:00	5.01 pH	21.80 °C	1,552.8 µS/cm	0.23 mg/L	0.36 NTU	180.6 mV	38.50 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 12:05:11 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: BRGWC-52I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 66 ft</b> <b>Total Depth: 76.6 ft</b> <b>Initial Depth to Water: 39.74 ft</b>	<b>Pump Type: QED Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 71 ft</b> <b>Estimated Total Volume Pumped: 12.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 12 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Cloudy, sample time-1255

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/25/2022 12:05 PM	00:00	6.23 pH	40.84 °C	0.21 µS/cm	5.82 mg/L	3.92 NTU	71.8 mV	39.74 ft	250.00 ml/min
8/25/2022 12:10 PM	05:00	6.58 pH	21.65 °C	357.37 µS/cm	1.07 mg/L	2.48 NTU	-20.4 mV	40.50 ft	250.00 ml/min
8/25/2022 12:15 PM	10:00	6.74 pH	20.75 °C	362.73 µS/cm	0.39 mg/L	1.62 NTU	-56.4 mV	40.70 ft	250.00 ml/min
8/25/2022 12:20 PM	15:00	6.94 pH	20.71 °C	354.90 µS/cm	0.30 mg/L	1.73 NTU	-84.1 mV	40.70 ft	250.00 ml/min
8/25/2022 12:25 PM	20:00	6.97 pH	20.66 °C	346.93 µS/cm	0.29 mg/L	2.06 NTU	-90.9 mV	40.70 ft	250.00 ml/min
8/25/2022 12:30 PM	25:00	6.75 pH	20.59 °C	342.23 µS/cm	0.29 mg/L	1.42 NTU	-77.3 mV	40.70 ft	250.00 ml/min
8/25/2022 12:35 PM	30:00	6.40 pH	20.49 °C	333.34 µS/cm	0.29 mg/L	0.94 NTU	-55.6 mV	40.70 ft	250.00 ml/min
8/25/2022 12:40 PM	35:00	6.29 pH	20.48 °C	328.54 µS/cm	0.29 mg/L	0.89 NTU	-40.0 mV	40.70 ft	250.00 ml/min
8/25/2022 12:45 PM	40:00	6.24 pH	20.48 °C	325.46 µS/cm	0.29 mg/L	0.75 NTU	-36.6 mV	40.70 ft	250.00 ml/min
8/25/2022 12:50 PM	45:00	6.18 pH	20.45 °C	322.70 µS/cm	0.29 mg/L	0.68 NTU	-28.5 mV	40.70 ft	250.00 ml/min
8/25/2022 12:55 PM	50:00	6.21 pH	20.51 °C	323.93 µS/cm	0.28 mg/L	0.52 NTU	-39.0 mV	40.70 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 10/6/2022 2:35:32 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: PZ-43</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 32.97 ft</b> <b>Total Depth: 42.97 ft</b> <b>Initial Depth to Water: 30.12 ft</b>	<b>Pump Type: Peri pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 37 ft</b> <b>Estimated Total Volume Pumped: 11.2 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 3.4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sunny, stop time-1550

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
10/6/2022 2:35 PM	00:00	3.84 pH	45.40 °C	2.43 µS/cm	5.74 mg/L	852.00 NTU	359.6 mV	30.12 ft	150.00 ml/min
10/6/2022 2:40 PM	05:00	5.76 pH	31.64 °C	2,150.1 µS/cm	0.46 mg/L	795.00 NTU	192.5 mV	30.40 ft	150.00 ml/min
10/6/2022 2:45 PM	10:00	5.35 pH	25.38 °C	2,394.5 µS/cm	0.24 mg/L	461.00 NTU	337.1 mV	30.40 ft	150.00 ml/min
10/6/2022 2:50 PM	15:00	5.41 pH	24.98 °C	2,380.0 µS/cm	0.13 mg/L	287.00 NTU	223.4 mV	30.40 ft	150.00 ml/min
10/6/2022 2:55 PM	20:00	5.36 pH	24.91 °C	2,383.5 µS/cm	0.10 mg/L	142.00 NTU	301.5 mV	30.40 ft	150.00 ml/min
10/6/2022 3:00 PM	25:00	5.31 pH	24.71 °C	2,347.0 µS/cm	0.07 mg/L	120.00 NTU	250.2 mV	30.40 ft	150.00 ml/min
10/6/2022 3:05 PM	30:00	5.28 pH	24.47 °C	2,390.6 µS/cm	0.06 mg/L	81.00 NTU	342.9 mV	30.40 ft	150.00 ml/min
10/6/2022 3:10 PM	35:00	5.27 pH	24.61 °C	2,386.3 µS/cm	0.05 mg/L	57.00 NTU	266.5 mV	30.40 ft	150.00 ml/min
10/6/2022 3:15 PM	40:00	5.25 pH	24.56 °C	2,397.6 µS/cm	0.05 mg/L	44.00 NTU	362.7 mV	30.40 ft	150.00 ml/min
10/6/2022 3:20 PM	45:00	5.25 pH	24.61 °C	2,392.3 µS/cm	0.04 mg/L	13.00 NTU	278.6 mV	30.40 ft	150.00 ml/min
10/6/2022 3:25 PM	50:00	5.24 pH	24.65 °C	2,390.6 µS/cm	0.04 mg/L	13.00 NTU	285.9 mV	30.40 ft	150.00 ml/min
10/6/2022 3:30 PM	55:00	5.24 pH	24.63 °C	2,396.3 µS/cm	0.04 mg/L	11.00 NTU	387.2 mV	30.40 ft	150.00 ml/min
10/6/2022 3:35 PM	01:00:00	5.24 pH	24.67 °C	2,408.7 µS/cm	0.04 mg/L	10.00 NTU	393.8 mV	30.40 ft	150.00 ml/min
10/6/2022 3:40 PM	01:05:00	5.24 pH	24.54 °C	2,383.4 µS/cm	0.03 mg/L	7.08 NTU	295.7 mV	30.40 ft	150.00 ml/min
10/6/2022 3:45 PM	01:10:00	5.25 pH	24.50 °C	2,408.7 µS/cm	0.03 mg/L	5.73 NTU	297.2 mV	30.40 ft	150.00 ml/min

10/6/2022 3:50 PM	01:15:00	5.24 pH	24.47 °C	2,410.8 µS/cm	0.03 mg/L	4.41 NTU	296.3 mV	30.40 ft	150.00 ml/min
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**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 8/25/2022 11:01:04 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-44 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 49.58 ft <b>Total Depth:</b> 59.58 ft <b>Initial Depth to Water:</b> 28.08 ft	<b>Pump Type:</b> Peri pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 54 ft <b>Estimated Total Volume Pumped:</b> 7.5 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 250 ml/min <b>Final Draw Down:</b> 6 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850751
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## Test Notes:

Cloudy, sample time-1131

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/25/2022 11:01 AM	00:00	6.13 pH	32.22 °C	0.27 µS/cm	7.30 mg/L	0.86 NTU	88.4 mV	28.08 ft	250.00 ml/min
8/25/2022 11:06 AM	05:00	6.07 pH	24.52 °C	187.89 µS/cm	0.40 mg/L	0.88 NTU	86.0 mV	28.50 ft	250.00 ml/min
8/25/2022 11:11 AM	10:00	6.06 pH	22.95 °C	195.30 µS/cm	0.25 mg/L	0.94 NTU	92.4 mV	28.50 ft	250.00 ml/min
8/25/2022 11:16 AM	15:00	6.05 pH	22.85 °C	194.84 µS/cm	0.21 mg/L	0.58 NTU	91.8 mV	28.50 ft	250.00 ml/min
8/25/2022 11:21 AM	20:00	6.06 pH	22.85 °C	195.94 µS/cm	0.18 mg/L	0.77 NTU	85.1 mV	28.50 ft	250.00 ml/min
8/25/2022 11:26 AM	25:00	6.06 pH	23.14 °C	197.67 µS/cm	0.16 mg/L	0.49 NTU	87.6 mV	28.50 ft	250.00 ml/min
8/25/2022 11:31 AM	30:00	6.06 pH	22.72 °C	196.67 µS/cm	0.13 mg/L	0.52 NTU	90.3 mV	28.50 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 9:29:24 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: PZ-50D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 99 ft</b> <b>Total Depth: 109.9 ft</b> <b>Initial Depth to Water: 52.32 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 104 ft</b> <b>Estimated Total Volume Pumped: 2.3 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 23.8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled after overnight recharge at 0951 on 8-25-22. Cloudy 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/25/2022 9:29 AM	00:00	6.24 pH	24.34 °C	1,552.6 µS/cm	7.78 mg/L	10.00 NTU	65.5 mV	52.32 ft	100.00 ml/min
8/25/2022 9:34 AM	05:00	6.15 pH	23.32 °C	1,709.3 µS/cm	5.87 mg/L	12.00 NTU	61.6 mV	53.20 ft	100.00 ml/min
8/25/2022 9:39 AM	10:00	6.11 pH	23.08 °C	1,660.5 µS/cm	2.13 mg/L	6.90 NTU	64.8 mV	53.70 ft	100.00 ml/min
8/25/2022 9:44 AM	15:00	6.11 pH	23.03 °C	1,651.5 µS/cm	1.61 mg/L	8.40 NTU	68.1 mV	53.90 ft	100.00 ml/min
8/25/2022 9:49 AM	20:00	6.11 pH	23.01 °C	1,656.2 µS/cm	1.50 mg/L	6.80 NTU	69.2 mV	54.30 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/24/2022 3:20:10 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-50D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 99.9 ft</b> <b>Total Depth: 109.9 ft</b> <b>Initial Depth to Water: 38.11 ft</b>	<b>Pump Type: QED Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 104 ft</b> <b>Estimated Total Volume Pumped: 43.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 350 ml/min</b> <b>Final Draw Down: 63.89 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Well purged dry. Allow well to recharge overnight. No sample collected

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/24/2022 3:20 PM	00:00	5.02 pH	32.11 °C	1,545.2 µS/cm	1.35 mg/L	3.92 NTU	179.1 mV	38.11 ft	125.00 ml/min
8/24/2022 3:25 PM	05:00	5.97 pH	29.39 °C	1,315.9 µS/cm	3.04 mg/L	3.11 NTU	97.5 mV	38.80 ft	125.00 ml/min
8/24/2022 3:30 PM	10:00	5.92 pH	26.65 °C	1,380.6 µS/cm	0.82 mg/L	3.65 NTU	64.9 mV	39.30 ft	125.00 ml/min
8/24/2022 3:35 PM	15:00	5.92 pH	26.88 °C	1,384.4 µS/cm	0.72 mg/L	3.21 NTU	48.8 mV	39.50 ft	125.00 ml/min
8/24/2022 3:40 PM	20:00	5.93 pH	27.85 °C	1,380.2 µS/cm	0.75 mg/L	3.05 NTU	35.0 mV	39.70 ft	125.00 ml/min
8/24/2022 3:45 PM	25:00	5.96 pH	27.22 °C	1,331.1 µS/cm	0.68 mg/L	2.50 NTU	27.1 mV	40.60 ft	350.00 ml/min
8/24/2022 3:50 PM	30:00	5.95 pH	23.30 °C	1,370.4 µS/cm	0.28 mg/L	2.79 NTU	24.3 mV	41.60 ft	350.00 ml/min
8/24/2022 3:55 PM	35:00	5.94 pH	23.21 °C	1,372.2 µS/cm	0.22 mg/L	3.33 NTU	21.2 mV	45.30 ft	350.00 ml/min
8/24/2022 4:00 PM	40:00	5.95 pH	23.03 °C	1,368.8 µS/cm	0.21 mg/L	2.74 NTU	18.7 mV	48.60 ft	350.00 ml/min
8/24/2022 4:05 PM	45:00	5.96 pH	23.05 °C	1,354.9 µS/cm	0.21 mg/L	2.94 NTU	16.7 mV	51.10 ft	350.00 ml/min
8/24/2022 4:10 PM	50:00	5.98 pH	22.40 °C	1,334.1 µS/cm	0.18 mg/L	1.97 NTU	15.5 mV	54.20 ft	350.00 ml/min
8/24/2022 4:15 PM	55:00	6.04 pH	22.45 °C	1,284.0 µS/cm	0.18 mg/L	3.78 NTU	18.6 mV	57.50 ft	350.00 ml/min
8/24/2022 4:20 PM	01:00:00	6.06 pH	22.72 °C	1,270.5 µS/cm	0.26 mg/L	4.21 NTU	24.3 mV	59.90 ft	350.00 ml/min
8/24/2022 4:25 PM	01:05:00	6.09 pH	22.09 °C	1,251.0 µS/cm	0.80 mg/L	6.37 NTU	31.7 mV	63.20 ft	350.00 ml/min
8/24/2022 4:30 PM	01:10:00	6.17 pH	21.82 °C	1,244.3 µS/cm	2.67 mg/L	8.42 NTU	42.3 mV	66.40 ft	350.00 ml/min

8/24/2022 4:35 PM	01:15:00	6.28 pH	21.91 °C	1,244.1 µS/cm	4.54 mg/L	11.00 NTU	51.8 mV	69.10 ft	350.00 ml/min
8/24/2022 4:40 PM	01:20:00	6.33 pH	21.98 °C	1,249.8 µS/cm	5.06 mg/L	13.00 NTU	57.4 mV	73.00 ft	350.00 ml/min
8/24/2022 4:45 PM	01:25:00	6.36 pH	21.93 °C	1,243.5 µS/cm	5.38 mg/L	12.00 NTU	60.8 mV	76.70 ft	350.00 ml/min
8/24/2022 4:50 PM	01:30:00	6.34 pH	22.09 °C	1,256.3 µS/cm	5.34 mg/L	15.00 NTU	62.2 mV	80.70 ft	350.00 ml/min
8/24/2022 4:55 PM	01:35:00	6.33 pH	22.67 °C	1,272.6 µS/cm	5.25 mg/L	17.00 NTU	62.8 mV	84.20 ft	350.00 ml/min
8/24/2022 5:00 PM	01:40:00	6.25 pH	23.18 °C	1,290.9 µS/cm	4.71 mg/L	16.00 NTU	59.1 mV	88.60 ft	350.00 ml/min
8/24/2022 5:05 PM	01:45:00	6.24 pH	26.85 °C	1,308.8 µS/cm	4.59 mg/L	14.00 NTU	53.7 mV	93.10 ft	350.00 ml/min
8/24/2022 5:10 PM	01:50:00	6.26 pH	28.89 °C	1,293.0 µS/cm	4.57 mg/L	15.00 NTU	53.8 mV	96.30 ft	350.00 ml/min
8/24/2022 5:15 PM	01:55:00	6.27 pH	29.81 °C	1,286.6 µS/cm	5.06 mg/L	18.00 NTU	56.8 mV	98.80 ft	350.00 ml/min
8/24/2022 5:20 PM	02:00:00	6.16 pH	26.08 °C	1,339.5 µS/cm	5.17 mg/L	25.00 NTU	56.1 mV	102.00 ft	350.00 ml/min

## Samples

<b>Sample ID:</b>	<b>Description:</b>
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# Low-Flow Test Report:

Test Date / Time: 8/24/2022 9:47:29 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: PZ-51D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 96 ft</b> <b>Total Depth: 106 ft</b> <b>Initial Depth to Water: 38.08 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 100 ft</b> <b>Estimated Total Volume Pumped: 7.4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 7.4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1049 on 8-24-22. Cloudy 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/24/2022 9:47 AM	00:00	7.08 pH	25.95 °C	17.84 µS/cm	8.02 mg/L	10.00 NTU	266.4 mV	38.08 ft	200.00 ml/min
8/24/2022 9:52 AM	05:00	7.19 pH	24.69 °C	839.66 µS/cm	2.81 mg/L	7.20 NTU	43.4 mV	37.60 ft	120.00 ml/min
8/24/2022 9:57 AM	10:00	6.84 pH	23.06 °C	842.29 µS/cm	1.63 mg/L	7.00 NTU	-25.7 mV	37.90 ft	120.00 ml/min
8/24/2022 10:02 AM	15:00	6.90 pH	22.67 °C	851.93 µS/cm	1.02 mg/L	6.90 NTU	-47.6 mV	38.20 ft	120.00 ml/min
8/24/2022 10:07 AM	20:00	6.96 pH	22.45 °C	848.31 µS/cm	0.68 mg/L	8.90 NTU	-66.9 mV	38.50 ft	120.00 ml/min
8/24/2022 10:12 AM	25:00	7.01 pH	22.38 °C	848.10 µS/cm	0.51 mg/L	7.30 NTU	-76.4 mV	38.80 ft	120.00 ml/min
8/24/2022 10:17 AM	30:00	7.05 pH	22.53 °C	849.68 µS/cm	0.41 mg/L	7.10 NTU	-90.9 mV	39.10 ft	120.00 ml/min
8/24/2022 10:22 AM	35:00	7.08 pH	22.56 °C	851.00 µS/cm	0.36 mg/L	6.90 NTU	-91.8 mV	39.60 ft	120.00 ml/min
8/24/2022 10:27 AM	40:00	7.10 pH	22.82 °C	850.55 µS/cm	0.34 mg/L	6.50 NTU	-100.5 mV	39.70 ft	100.00 ml/min
8/24/2022 10:32 AM	45:00	7.11 pH	23.17 °C	847.30 µS/cm	0.35 mg/L	5.70 NTU	-96.9 mV	40.00 ft	100.00 ml/min
8/24/2022 10:37 AM	50:00	7.13 pH	23.30 °C	846.94 µS/cm	0.32 mg/L	5.40 NTU	-103.0 mV	39.30 ft	100.00 ml/min
8/24/2022 10:42 AM	55:00	7.14 pH	23.34 °C	848.03 µS/cm	0.32 mg/L	5.30 NTU	-98.2 mV	39.40 ft	100.00 ml/min
8/24/2022 10:47 AM	01:00:00	7.15 pH	23.04 °C	843.49 µS/cm	0.30 mg/L	4.80 NTU	-98.6 mV	39.50 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 8/24/2022 12:08:39 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** H Auld

<b>Location Name:</b> PZ-511 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 55 ft <b>Total Depth:</b> 65 ft <b>Initial Depth to Water:</b> 38.4 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 60 ft <b>Estimated Total Volume Pumped:</b> 4.4 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 6 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 883530
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## Test Notes:

Sampled at 1234 on 8-24-22. Partly cloudy 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/24/2022 12:08 PM	00:00	6.49 pH	29.39 °C	1,527.3 µS/cm	4.14 mg/L	10.00 NTU	64.1 mV	38.40 ft	150.00 ml/min
8/24/2022 12:13 PM	05:00	5.62 pH	23.84 °C	1,659.9 µS/cm	1.40 mg/L	4.50 NTU	108.6 mV	38.80 ft	150.00 ml/min
8/24/2022 12:18 PM	10:00	5.55 pH	23.00 °C	1,689.4 µS/cm	0.51 mg/L	2.20 NTU	122.4 mV	38.90 ft	150.00 ml/min
8/24/2022 12:23 PM	15:00	5.52 pH	23.03 °C	1,700.7 µS/cm	0.27 mg/L	1.60 NTU	129.1 mV	38.90 ft	150.00 ml/min
8/24/2022 12:28 PM	20:00	5.51 pH	22.99 °C	1,627.9 µS/cm	0.21 mg/L	1.30 NTU	163.6 mV	38.90 ft	150.00 ml/min
8/24/2022 12:33 PM	25:00	5.49 pH	22.90 °C	1,630.5 µS/cm	0.17 mg/L	1.00 NTU	175.3 mV	38.90 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/24/2022 3:42:30 PM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: PZ-51S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 40.4 ft</b> <b>Total Depth: 45.4 ft</b> <b>Initial Depth to Water: 38.35 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 42.5 ft</b> <b>Estimated Total Volume Pumped: 3.9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 13.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1609 on 8-24-22. Sunny 80s. FD-02 here.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/24/2022 3:42 PM	00:00	6.14 pH	30.58 °C	174.32 µS/cm	1.51 mg/L	5.00 NTU	101.0 mV	38.35 ft	200.00 ml/min
8/24/2022 3:47 PM	05:00	6.10 pH	23.80 °C	144.97 µS/cm	0.95 mg/L	5.90 NTU	164.1 mV	39.00 ft	200.00 ml/min
8/24/2022 3:52 PM	10:00	6.12 pH	23.21 °C	144.65 µS/cm	0.83 mg/L	4.30 NTU	168.5 mV	39.25 ft	150.00 ml/min
8/24/2022 3:57 PM	15:00	6.13 pH	23.44 °C	145.08 µS/cm	0.61 mg/L	2.50 NTU	173.5 mV	39.35 ft	120.00 ml/min
8/24/2022 4:02 PM	20:00	6.12 pH	23.07 °C	143.37 µS/cm	0.50 mg/L	2.00 NTU	187.6 mV	39.40 ft	120.00 ml/min
8/24/2022 4:07 PM	25:00	6.12 pH	22.90 °C	143.50 µS/cm	0.37 mg/L	1.90 NTU	178.3 mV	39.45 ft	120.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 10:20:10 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-571</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 65.9 ft</b> <b>Total Depth: 75.9 ft</b> <b>Initial Depth to Water: 36.48 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 70 ft</b> <b>Estimated Total Volume Pumped: 9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728566</b>
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## Test Notes:

Sample time 1055. Overcast 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/25/2022 10:20 AM	00:00	5.95 pH	22.90 °C	549.37 µS/cm	0.90 mg/L	2.64 NTU	48.2 mV	36.48 ft	250.00 ml/min
8/25/2022 10:25 AM	05:00	5.91 pH	21.35 °C	551.20 µS/cm	0.24 mg/L	2.61 NTU	31.4 mV	37.00 ft	250.00 ml/min
8/25/2022 10:30 AM	10:00	5.91 pH	21.15 °C	550.73 µS/cm	0.16 mg/L	2.82 NTU	26.2 mV	37.00 ft	250.00 ml/min
8/25/2022 10:35 AM	15:00	5.91 pH	21.14 °C	551.10 µS/cm	0.12 mg/L	2.97 NTU	23.0 mV	37.00 ft	250.00 ml/min
8/25/2022 10:40 AM	20:00	5.91 pH	21.29 °C	552.34 µS/cm	0.10 mg/L	3.15 NTU	18.3 mV	37.00 ft	250.00 ml/min
8/25/2022 10:45 AM	25:00	5.90 pH	21.28 °C	552.85 µS/cm	0.08 mg/L	2.74 NTU	14.7 mV	37.00 ft	250.00 ml/min
8/25/2022 10:50 AM	30:00	5.91 pH	21.36 °C	552.37 µS/cm	0.07 mg/L	2.76 NTU	12.0 mV	37.00 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/24/2022 9:45:03 AM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-58I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53 ft</b> <b>Total Depth: 63.93 ft</b> <b>Initial Depth to Water: 38.44 ft</b>	<b>Pump Type: Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 11.25 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Cloudy, sample time -1030, FD-01 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/24/2022 9:45 AM	00:00	6.91 pH	24.54 °C	1.99 µS/cm	8.25 mg/L	3.21 NTU	220.6 mV	38.44 ft	250.00 ml/min
8/24/2022 9:50 AM	05:00	3.82 pH	21.96 °C	1,101.0 µS/cm	0.50 mg/L	2.88 NTU	187.7 mV	38.60 ft	250.00 ml/min
8/24/2022 9:55 AM	10:00	3.84 pH	21.56 °C	1,095.9 µS/cm	0.25 mg/L	3.60 NTU	181.4 mV	38.60 ft	250.00 ml/min
8/24/2022 10:00 AM	15:00	3.84 pH	21.55 °C	1,102.4 µS/cm	0.18 mg/L	4.83 NTU	176.2 mV	38.60 ft	250.00 ml/min
8/24/2022 10:05 AM	20:00	3.83 pH	21.47 °C	1,105.3 µS/cm	0.15 mg/L	5.02 NTU	171.0 mV	38.60 ft	250.00 ml/min
8/24/2022 10:10 AM	25:00	3.82 pH	21.47 °C	1,107.1 µS/cm	0.13 mg/L	6.15 NTU	170.3 mV	38.60 ft	250.00 ml/min
8/24/2022 10:15 AM	30:00	3.82 pH	21.51 °C	1,110.1 µS/cm	0.11 mg/L	2.87 NTU	169.1 mV	38.60 ft	250.00 ml/min
8/24/2022 10:20 AM	35:00	3.82 pH	21.51 °C	1,112.2 µS/cm	0.10 mg/L	2.95 NTU	169.1 mV	38.60 ft	250.00 ml/min
8/24/2022 10:25 AM	40:00	3.81 pH	21.61 °C	1,110.5 µS/cm	0.09 mg/L	2.15 NTU	168.5 mV	38.60 ft	250.00 ml/min
8/24/2022 10:30 AM	45:00	3.81 pH	21.63 °C	1,113.3 µS/cm	0.09 mg/L	2.22 NTU	168.3 mV	38.60 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 8/25/2022 12:13:21 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** H Auld

<b>Location Name: PZ-59I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 59.8 ft</b> <b>Total Depth: 69.81 ft</b> <b>Initial Depth to Water: 39.78 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 64 ft</b> <b>Estimated Total Volume Pumped: 12.8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 155 ml/min</b> <b>Final Draw Down: 40.3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1316 on 8-25-22. Cloudy 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/25/2022 12:13 PM	00:00	5.59 pH	37.15 °C	1.50 µS/cm	6.52 mg/L	57.00 NTU	125.3 mV	39.78 ft	150.00 ml/min
8/25/2022 12:18 PM	05:00	3.72 pH	25.84 °C	2,980.3 µS/cm	0.76 mg/L	57.00 NTU	192.0 mV	40.20 ft	150.00 ml/min
8/25/2022 12:23 PM	10:00	3.72 pH	23.61 °C	3,079.7 µS/cm	0.16 mg/L	16.10 NTU	191.9 mV	40.40 ft	200.00 ml/min
8/25/2022 12:28 PM	15:00	3.72 pH	23.16 °C	3,133.2 µS/cm	0.10 mg/L	8.70 NTU	193.3 mV	40.40 ft	200.00 ml/min
8/25/2022 12:33 PM	20:00	3.71 pH	22.90 °C	3,128.5 µS/cm	0.08 mg/L	6.50 NTU	204.7 mV	40.40 ft	200.00 ml/min
8/25/2022 12:38 PM	25:00	3.72 pH	22.74 °C	3,123.9 µS/cm	0.06 mg/L	5.80 NTU	196.7 mV	40.45 ft	200.00 ml/min
8/25/2022 12:43 PM	30:00	3.71 pH	22.67 °C	3,126.5 µS/cm	0.05 mg/L	5.30 NTU	206.6 mV	40.45 ft	200.00 ml/min
8/25/2022 12:48 PM	35:00	3.71 pH	22.73 °C	3,129.3 µS/cm	0.04 mg/L	7.10 NTU	198.3 mV	40.45 ft	200.00 ml/min
8/25/2022 12:53 PM	40:00	3.72 pH	22.74 °C	3,128.7 µS/cm	0.03 mg/L	7.60 NTU	208.6 mV	40.45 ft	200.00 ml/min
8/25/2022 12:58 PM	45:00	3.71 pH	22.85 °C	3,138.2 µS/cm	0.03 mg/L	6.40 NTU	199.6 mV	40.45 ft	155.00 ml/min
8/25/2022 1:03 PM	50:00	3.72 pH	23.39 °C	3,131.9 µS/cm	0.03 mg/L	6.10 NTU	210.3 mV	4.30 ft	155.00 ml/min
8/25/2022 1:08 PM	55:00	3.72 pH	23.71 °C	3,130.4 µS/cm	0.03 mg/L	5.70 NTU	211.2 mV	4.30 ft	155.00 ml/min
8/25/2022 1:13 PM	01:00:00	3.72 pH	23.84 °C	3,130.4 µS/cm	0.03 mg/L	4.40 NTU	212.4 mV	4.30 ft	155.00 ml/min

## Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 8/24/2022 11:35:15 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-60I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 54.15 ft <b>Total Depth:</b> 64.15 ft <b>Initial Depth to Water:</b> 38.42 ft	<b>Pump Type:</b> Portable Bladder pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 59 ft <b>Estimated Total Volume Pumped:</b> 11.2 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 250 ml/min <b>Final Draw Down:</b> 1 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850751
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## Test Notes:

Cloudy, sample time-1220

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
8/24/2022 11:35 AM	00:00	3.98 pH	31.25 °C	1.06 µS/cm	7.16 mg/L	3.00 NTU	194.3 mV	38.42 ft	250.00 ml/min
8/24/2022 11:40 AM	05:00	4.58 pH	23.36 °C	1,979.5 µS/cm	0.40 mg/L	1.26 NTU	237.1 mV	38.50 ft	250.00 ml/min
8/24/2022 11:45 AM	10:00	4.57 pH	22.38 °C	2,084.8 µS/cm	0.21 mg/L	1.48 NTU	292.5 mV	38.50 ft	250.00 ml/min
8/24/2022 11:50 AM	15:00	4.57 pH	22.27 °C	2,077.3 µS/cm	0.16 mg/L	1.74 NTU	312.6 mV	38.50 ft	250.00 ml/min
8/24/2022 11:55 AM	20:00	4.57 pH	22.24 °C	2,069.9 µS/cm	0.13 mg/L	2.09 NTU	337.9 mV	38.50 ft	250.00 ml/min
8/24/2022 12:00 PM	25:00	4.57 pH	22.18 °C	2,070.5 µS/cm	0.11 mg/L	1.86 NTU	368.6 mV	38.50 ft	250.00 ml/min
8/24/2022 12:05 PM	30:00	4.56 pH	22.18 °C	2,062.6 µS/cm	0.10 mg/L	1.83 NTU	347.9 mV	38.50 ft	250.00 ml/min
8/24/2022 12:10 PM	35:00	4.56 pH	22.05 °C	2,067.8 µS/cm	0.09 mg/L	1.11 NTU	365.6 mV	38.50 ft	250.00 ml/min
8/24/2022 12:15 PM	40:00	4.56 pH	22.07 °C	2,055.1 µS/cm	0.08 mg/L	1.05 NTU	361.0 mV	38.50 ft	250.00 ml/min
8/24/2022 12:20 PM	45:00	4.55 pH	22.15 °C	2,061.2 µS/cm	0.07 mg/L	1.14 NTU	394.0 mV	38.50 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/24/2022 1:25:13 PM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: PZ-611</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 66 ft</b> <b>Total Depth: 76 ft</b> <b>Initial Depth to Water: 47.91 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 71 ft</b> <b>Estimated Total Volume Pumped: 5.7 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 3.5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1402 on 8-24-22. Sunny 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/24/2022 1:25 PM	00:00	5.74 pH	29.80 °C	1,541.1 µS/cm	5.21 mg/L	10.00 NTU	82.5 mV	47.91 ft	150.00 ml/min
8/24/2022 1:30 PM	05:00	5.19 pH	23.56 °C	2,081.6 µS/cm	0.43 mg/L	27.00 NTU	145.8 mV	48.15 ft	150.00 ml/min
8/24/2022 1:35 PM	10:00	5.17 pH	22.71 °C	2,105.5 µS/cm	0.20 mg/L	19.00 NTU	154.9 mV	48.15 ft	150.00 ml/min
8/24/2022 1:40 PM	15:00	5.16 pH	22.54 °C	2,080.9 µS/cm	0.16 mg/L	10.80 NTU	156.4 mV	48.20 ft	150.00 ml/min
8/24/2022 1:45 PM	20:00	5.15 pH	22.54 °C	2,075.6 µS/cm	0.13 mg/L	11.70 NTU	204.0 mV	48.20 ft	150.00 ml/min
8/24/2022 1:50 PM	25:00	5.15 pH	22.35 °C	2,076.2 µS/cm	0.12 mg/L	7.64 NTU	208.9 mV	48.20 ft	150.00 ml/min
8/24/2022 1:55 PM	30:00	5.14 pH	22.34 °C	2,073.9 µS/cm	0.12 mg/L	6.60 NTU	212.9 mV	48.20 ft	150.00 ml/min
8/24/2022 2:00 PM	35:00	5.14 pH	22.81 °C	2,084.0 µS/cm	0.12 mg/L	4.50 NTU	165.6 mV	48.20 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 10:54:59 AM

Project: Plant Branch Ash Ponds

Operator Name: H Auld

<b>Location Name: PZ-62I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 62.5 ft</b> <b>Total Depth: 72.68 ft</b> <b>Initial Depth to Water: 39.18 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 67 ft</b> <b>Estimated Total Volume Pumped: 5.1 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 175 ml/min</b> <b>Final Draw Down: 7.4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sampled at 1121 on 8-25-22. Partly sunny 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
8/25/2022 10:54 AM	00:00	6.67 pH	25.96 °C	544.58 µS/cm	3.40 mg/L	10.00 NTU	-14.5 mV	39.18 ft	175.00 ml/min
8/25/2022 10:59 AM	05:00	5.56 pH	22.99 °C	925.98 µS/cm	0.89 mg/L	8.50 NTU	82.4 mV	39.60 ft	175.00 ml/min
8/25/2022 11:04 AM	10:00	5.52 pH	22.54 °C	955.52 µS/cm	0.58 mg/L	4.40 NTU	92.0 mV	39.60 ft	175.00 ml/min
8/25/2022 11:09 AM	15:00	5.51 pH	21.91 °C	954.90 µS/cm	0.32 mg/L	3.50 NTU	90.7 mV	39.70 ft	175.00 ml/min
8/25/2022 11:14 AM	20:00	5.50 pH	21.78 °C	955.63 µS/cm	0.27 mg/L	3.10 NTU	91.3 mV	39.80 ft	175.00 ml/min
8/25/2022 11:19 AM	25:00	5.50 pH	21.77 °C	956.56 µS/cm	0.23 mg/L	2.10 NTU	91.7 mV	39.80 ft	175.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 8/25/2022 11:45:17 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-63I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 46.5 ft</b> <b>Total Depth: 56.5 ft</b> <b>Initial Depth to Water: 39.5 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 51 ft</b> <b>Estimated Total Volume Pumped: 7.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 11 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728566</b>
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## Test Notes:

Sample time 1220. Overcast 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/25/2022 11:45 AM	00:00	6.20 pH	25.04 °C	502.12 µS/cm	0.72 mg/L	2.12 NTU	9.0 mV	39.50 ft	250.00 ml/min
8/25/2022 11:50 AM	05:00	6.03 pH	22.08 °C	500.67 µS/cm	0.21 mg/L	2.04 NTU	2.3 mV	40.20 ft	250.00 ml/min
8/25/2022 11:55 AM	10:00	5.86 pH	21.73 °C	493.22 µS/cm	0.15 mg/L	1.83 NTU	3.9 mV	40.30 ft	250.00 ml/min
8/25/2022 12:00 PM	15:00	5.75 pH	21.73 °C	490.91 µS/cm	0.13 mg/L	2.07 NTU	8.5 mV	40.40 ft	250.00 ml/min
8/25/2022 12:05 PM	20:00	5.70 pH	21.64 °C	489.24 µS/cm	0.10 mg/L	1.46 NTU	13.6 mV	40.40 ft	250.00 ml/min
8/25/2022 12:10 PM	25:00	5.67 pH	21.31 °C	489.64 µS/cm	0.09 mg/L	1.43 NTU	16.7 mV	40.40 ft	250.00 ml/min
8/25/2022 12:15 PM	30:00	5.65 pH	21.14 °C	489.12 µS/cm	0.08 mg/L	1.20 NTU	18.7 mV	40.40 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 10/11/2022 3:15:10 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: PZ-64I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 61.57 ft</b> <b>Total Depth: 71.57 ft</b> <b>Initial Depth to Water: 38.96 ft</b>	<b>Pump Type: Portable Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 65 ft</b> <b>Estimated Total Volume Pumped: 21375 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 6.44 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

No sample collected

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
10/11/2022 3:15 PM	00:00	6.31 pH	28.75 °C	2,554.3 µS/cm	3.29 mg/L	15.00 NTU	61.2 mV	38.96 ft	225.00 ml/min
10/11/2022 3:20 PM	05:00	5.60 pH	22.54 °C	3,023.3 µS/cm	0.27 mg/L	12.00 NTU	121.5 mV	40.40 ft	225.00 ml/min
10/11/2022 3:25 PM	10:00	5.58 pH	22.40 °C	3,115.3 µS/cm	0.15 mg/L	12.00 NTU	113.6 mV	41.90 ft	225.00 ml/min
10/11/2022 3:30 PM	15:00	5.56 pH	22.27 °C	3,206.6 µS/cm	0.11 mg/L	13.00 NTU	120.3 mV	42.60 ft	225.00 ml/min
10/11/2022 3:35 PM	20:00	5.57 pH	22.27 °C	3,283.4 µS/cm	0.08 mg/L	12.00 NTU	76.3 mV	43.20 ft	225.00 ml/min
10/11/2022 3:40 PM	25:00	5.58 pH	22.42 °C	3,332.4 µS/cm	0.06 mg/L	12.00 NTU	70.3 mV	44.00 ft	225.00 ml/min
10/11/2022 3:45 PM	30:00	5.58 pH	22.32 °C	3,368.8 µS/cm	0.04 mg/L	13.00 NTU	82.5 mV	44.70 ft	225.00 ml/min
10/11/2022 3:50 PM	35:00	5.57 pH	21.91 °C	3,427.4 µS/cm	0.03 mg/L	14.00 NTU	88.2 mV	45.40 ft	225.00 ml/min
10/11/2022 3:55 PM	40:00	5.56 pH	22.51 °C	3,013.7 µS/cm	0.12 mg/L	13.00 NTU	164.9 mV	45.40 ft	225.00 ml/min
10/11/2022 4:00 PM	45:00	5.55 pH	23.26 °C	3,001.8 µS/cm	0.11 mg/L	15.00 NTU	144.9 mV	45.40 ft	225.00 ml/min
10/11/2022 4:05 PM	50:00	5.55 pH	23.29 °C	3,012.7 µS/cm	0.10 mg/L	16.00 NTU	155.0 mV	45.40 ft	225.00 ml/min
10/11/2022 4:10 PM	55:00	5.55 pH	22.85 °C	2,996.0 µS/cm	0.09 mg/L	18.00 NTU	197.7 mV	45.40 ft	225.00 ml/min
10/11/2022 4:15 PM	01:00:00	5.56 pH	21.93 °C	3,069.5 µS/cm	0.07 mg/L	17.00 NTU	146.7 mV	45.40 ft	225.00 ml/min
10/11/2022 4:20 PM	01:05:00	5.56 pH	22.68 °C	3,300.7 µS/cm	0.02 mg/L	13.00 NTU	132.8 mV	45.40 ft	225.00 ml/min
10/11/2022 4:25 PM	01:10:00	5.88 pH	23.80 °C	2,668.5 µS/cm	2.38 mg/L	10.00 NTU	152.0 mV	45.40 ft	225.00 ml/min



10/11/2022 4:30 PM	01:15:00	5.74 pH	24.00 °C	2,807.1 µS/cm	1.32 mg/L	9.75 NTU	157.5 mV	45.40 ft	225.00 ml/min
10/11/2022 4:35 PM	01:20:00	5.62 pH	24.16 °C	2,938.7 µS/cm	0.56 mg/L	10.00 NTU	155.3 mV	45.40 ft	225.00 ml/min
10/11/2022 4:40 PM	01:25:00	5.57 pH	24.02 °C	3,288.4 µS/cm	0.14 mg/L	9.69 NTU	130.8 mV	45.40 ft	225.00 ml/min
10/11/2022 4:45 PM	01:30:00	5.56 pH	23.84 °C	3,543.3 µS/cm	-0.01 mg/L	13.00 NTU	109.6 mV	45.40 ft	225.00 ml/min
10/11/2022 4:50 PM	01:35:00	5.56 pH	23.75 °C	3,574.3 µS/cm	-0.02 mg/L	12.00 NTU	97.5 mV	45.40 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 10/12/2022 9:25:48 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-64I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 61.57 ft <b>Total Depth:</b> 71.57 ft <b>Initial Depth to Water:</b> 38.88 ft	<b>Pump Type:</b> Portable Bladder pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 65 ft <b>Estimated Total Volume Pumped:</b> 6.1 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 175 ml/min <b>Final Draw Down:</b> 54.2 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 883530
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## Test Notes:

Cloudy, sample time-1000

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
10/12/2022 9:25 AM	00:00	7.08 pH	20.77 °C	33.98 µS/cm	8.94 mg/L	9.87 NTU	255.1 mV	38.88 ft	175.00 ml/min
10/12/2022 9:30 AM	05:00	5.54 pH	21.06 °C	2,839.1 µS/cm	1.22 mg/L	8.37 NTU	84.4 mV	40.80 ft	175.00 ml/min
10/12/2022 9:35 AM	10:00	5.53 pH	20.73 °C	3,000.6 µS/cm	0.17 mg/L	6.55 NTU	72.7 mV	41.50 ft	175.00 ml/min
10/12/2022 9:40 AM	15:00	5.53 pH	20.69 °C	2,967.0 µS/cm	0.10 mg/L	6.01 NTU	54.4 mV	42.20 ft	175.00 ml/min
10/12/2022 9:45 AM	20:00	5.53 pH	20.68 °C	2,993.6 µS/cm	0.06 mg/L	5.77 NTU	47.2 mV	42.90 ft	175.00 ml/min
10/12/2022 9:50 AM	25:00	5.53 pH	20.69 °C	2,966.3 µS/cm	0.04 mg/L	5.23 NTU	42.3 mV	43.20 ft	175.00 ml/min
10/12/2022 9:55 AM	30:00	5.53 pH	20.75 °C	2,994.2 µS/cm	0.03 mg/L	4.89 NTU	38.8 mV	43.40 ft	175.00 ml/min
10/12/2022 10:00 AM	35:00	5.53 pH	20.78 °C	2,933.9 µS/cm	0.02 mg/L	4.41 NTU	35.7 mV	43.40 ft	175.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 11/7/2022 11:47:29 AM

**Project:** Plant Branch - Ash Pond

**Operator Name:** Taylor Goble

<b>Location Name: PZ-64I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 61.57 ft</b> <b>Total Depth: 71.57 ft</b> <b>Initial Depth to Water: 39.1 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 66 ft</b> <b>Estimated Total Volume Pumped: 14.3 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 1.1 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sampled at 1259. Fair 80 degrees.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
11/7/2022 11:47 AM	00:00	5.76 pH	29.65 °C	3,157.1 µS/cm	4.38 mg/L	17.70 NTU	43.3 mV	39.56 ft	200.00 ml/min
11/7/2022 11:52 AM	05:00	5.61 pH	25.10 °C	3,458.4 µS/cm	3.07 mg/L	13.20 NTU	31.3 mV	39.90 ft	200.00 ml/min
11/7/2022 11:57 AM	10:00	5.60 pH	24.46 °C	3,439.4 µS/cm	2.60 mg/L	11.70 NTU	20.6 mV	40.12 ft	200.00 ml/min
11/7/2022 11:59 AM	11:31	5.60 pH	24.38 °C	3,426.7 µS/cm	2.65 mg/L	10.20 NTU	25.2 mV	40.20 ft	200.00 ml/min
11/7/2022 12:04 PM	16:31	5.60 pH	24.54 °C	3,395.9 µS/cm	1.74 mg/L	8.50 NTU	19.9 mV	40.20 ft	200.00 ml/min
11/7/2022 12:09 PM	21:31	5.60 pH	24.72 °C	3,362.9 µS/cm	1.48 mg/L	6.81 NTU	9.1 mV	40.20 ft	200.00 ml/min
11/7/2022 12:14 PM	26:31	5.60 pH	24.83 °C	3,328.2 µS/cm	1.43 mg/L	6.22 NTU	13.7 mV	40.20 ft	200.00 ml/min
11/7/2022 12:19 PM	31:31	5.61 pH	25.05 °C	3,253.9 µS/cm	1.33 mg/L	13.50 NTU	1.8 mV	40.20 ft	200.00 ml/min
11/7/2022 12:24 PM	36:31	5.53 pH	24.05 °C	3,378.7 µS/cm	1.35 mg/L	17.30 NTU	10.9 mV	40.20 ft	200.00 ml/min
11/7/2022 12:29 PM	41:31	5.49 pH	24.24 °C	3,453.5 µS/cm	1.32 mg/L	12.30 NTU	17.0 mV	40.20 ft	200.00 ml/min
11/7/2022 12:34 PM	46:31	5.48 pH	25.23 °C	3,454.0 µS/cm	0.75 mg/L	9.80 NTU	20.6 mV	40.20 ft	200.00 ml/min
11/7/2022 12:39 PM	51:31	5.47 pH	25.30 °C	3,427.0 µS/cm	0.49 mg/L	10.50 NTU	22.9 mV	40.20 ft	200.00 ml/min
11/7/2022 12:44 PM	56:31	5.47 pH	24.01 °C	3,370.3 µS/cm	0.45 mg/L	9.13 NTU	29.5 mV	40.20 ft	200.00 ml/min
11/7/2022 12:49 PM	01:01:31	5.59 pH	23.51 °C	3,133.8 µS/cm	0.42 mg/L	7.27 NTU	19.3 mV	40.20 ft	200.00 ml/min
11/7/2022 12:54 PM	01:06:31	5.60 pH	24.74 °C	3,044.6 µS/cm	0.40 mg/L	5.59 NTU	10.8 mV	40.20 ft	200.00 ml/min

11/7/2022 12:59 PM	01:11:31	5.59 pH	25.51 °C	3,039.9 µS/cm	0.39 mg/L	4.69 NTU	-4.7 mV	40.20 ft	200.00 ml/min
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## Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 10/11/2022 1:50:13 PM

**Project:** Plant Branch Ash Pond

**Operator Name:** Taylor Goble

<b>Location Name:</b> PZ-65I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 62.27 ft <b>Total Depth:</b> 72.27 ft <b>Initial Depth to Water:</b> 36.71 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 67 ft <b>Estimated Total Volume Pumped:</b> 7550 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 170 ml/min <b>Final Draw Down:</b> 2.95 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714344
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## Test Notes:

Sampled at 1430. Cloudy 81 degrees.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
10/11/2022 1:50 PM	00:00	4.34 pH	36.00 °C	2,274.5 µS/cm	3.24 mg/L	90.00 NTU	138.7 mV	37.33 ft	200.00 ml/min
10/11/2022 1:55 PM	05:00	4.24 pH	24.91 °C	2,599.1 µS/cm	0.47 mg/L	70.10 NTU	126.7 mV	38.08 ft	200.00 ml/min
10/11/2022 2:00 PM	10:00	4.21 pH	23.54 °C	2,633.0 µS/cm	0.25 mg/L	49.40 NTU	128.5 mV	38.80 ft	200.00 ml/min
10/11/2022 2:05 PM	15:00	4.21 pH	22.75 °C	2,637.1 µS/cm	0.21 mg/L	32.50 NTU	130.5 mV	39.11 ft	200.00 ml/min
10/11/2022 2:10 PM	20:00	4.20 pH	22.62 °C	2,643.7 µS/cm	0.18 mg/L	22.70 NTU	131.7 mV	39.45 ft	200.00 ml/min
10/11/2022 2:15 PM	25:00	4.19 pH	22.96 °C	2,642.9 µS/cm	0.16 mg/L	8.73 NTU	132.8 mV	39.57 ft	170.00 ml/min
10/11/2022 2:20 PM	30:00	4.18 pH	23.27 °C	2,639.5 µS/cm	0.15 mg/L	6.11 NTU	134.0 mV	39.62 ft	170.00 ml/min
10/11/2022 2:25 PM	35:00	4.17 pH	24.06 °C	2,644.3 µS/cm	0.14 mg/L	5.26 NTU	135.0 mV	39.64 ft	170.00 ml/min
10/11/2022 2:30 PM	40:00	4.16 pH	24.32 °C	2,627.7 µS/cm	0.13 mg/L	4.80 NTU	136.3 mV	39.66 ft	170.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 10/11/2022 12:00:10 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-66I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 60.87 ft</b> <b>Total Depth: 70.87 ft</b> <b>Initial Depth to Water: 36.47 ft</b>	<b>Pump Type: Portable Bladder pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 65 ft</b> <b>Estimated Total Volume Pumped: 24.7 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 32.7 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 883530</b>
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## Test Notes:

Sunny, sample time -1440

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
10/11/2022 12:00 PM	00:00	7.08 pH	27.81 °C	20.54 µS/cm	7.90 mg/L	276.00 NTU	224.3 mV	36.47 ft	150.00 ml/min
10/11/2022 12:05 PM	05:00	5.89 pH	23.74 °C	2,776.6 µS/cm	0.36 mg/L	189.00 NTU	17.4 mV	37.50 ft	150.00 ml/min
10/11/2022 12:10 PM	10:00	5.89 pH	23.48 °C	2,774.0 µS/cm	0.18 mg/L	131.00 NTU	9.0 mV	38.00 ft	150.00 ml/min
10/11/2022 12:15 PM	15:00	5.89 pH	23.53 °C	2,785.7 µS/cm	0.12 mg/L	102.00 NTU	7.0 mV	38.20 ft	150.00 ml/min
10/11/2022 12:20 PM	20:00	5.91 pH	23.57 °C	2,803.2 µS/cm	0.09 mg/L	86.00 NTU	6.2 mV	38.50 ft	150.00 ml/min
10/11/2022 12:25 PM	25:00	5.86 pH	23.99 °C	2,715.3 µS/cm	0.08 mg/L	71.00 NTU	4.7 mV	38.70 ft	150.00 ml/min
10/11/2022 12:30 PM	30:00	5.66 pH	24.20 °C	2,512.8 µS/cm	0.08 mg/L	65.00 NTU	10.8 mV	38.80 ft	150.00 ml/min
10/11/2022 12:35 PM	35:00	5.66 pH	24.33 °C	2,500.3 µS/cm	0.06 mg/L	56.00 NTU	14.3 mV	38.80 ft	150.00 ml/min
10/11/2022 12:40 PM	40:00	5.67 pH	24.15 °C	2,517.6 µS/cm	0.06 mg/L	58.00 NTU	17.3 mV	38.80 ft	150.00 ml/min
10/11/2022 12:45 PM	45:00	5.75 pH	23.62 °C	2,590.6 µS/cm	0.06 mg/L	65.00 NTU	18.8 mV	38.80 ft	150.00 ml/min
10/11/2022 12:50 PM	50:00	5.81 pH	24.34 °C	2,652.1 µS/cm	0.04 mg/L	60.00 NTU	13.4 mV	38.80 ft	150.00 ml/min
10/11/2022 12:55 PM	55:00	5.81 pH	24.02 °C	2,206.7 µS/cm	0.05 mg/L	39.00 NTU	-26.4 mV	38.80 ft	150.00 ml/min
10/11/2022 1:00 PM	01:00:00	5.76 pH	24.58 °C	2,322.1 µS/cm	0.04 mg/L	22.00 NTU	-31.1 mV	38.80 ft	150.00 ml/min
10/11/2022 1:05 PM	01:05:00	5.72 pH	24.79 °C	2,418.7 µS/cm	0.04 mg/L	26.00 NTU	-25.0 mV	38.80 ft	150.00 ml/min
10/11/2022 1:10 PM	01:10:00	5.69 pH	25.02 °C	2,492.7 µS/cm	0.04 mg/L	24.00 NTU	-24.2 mV	38.80 ft	150.00 ml/min

10/11/2022 1:15 PM	01:15:00	5.72 pH	25.06 °C	2,545.5 µS/cm	0.02 mg/L	23.00 NTU	-6.6 mV	38.80 ft	150.00 ml/min
10/11/2022 1:20 PM	01:20:00	5.88 pH	24.87 °C	2,779.4 µS/cm	-0.01 mg/L	25.00 NTU	-10.9 mV	38.80 ft	150.00 ml/min
10/11/2022 1:25 PM	01:25:00	5.92 pH	25.11 °C	2,816.4 µS/cm	-0.02 mg/L	24.00 NTU	-3.2 mV	38.80 ft	150.00 ml/min
10/11/2022 1:30 PM	01:30:00	5.92 pH	24.57 °C	2,805.9 µS/cm	0.00 mg/L	15.00 NTU	9.1 mV	39.20 ft	225.00 ml/min
10/11/2022 1:35 PM	01:35:00	5.91 pH	24.56 °C	2,727.8 µS/cm	-0.02 mg/L	16.00 NTU	4.6 mV	39.20 ft	225.00 ml/min
10/11/2022 1:40 PM	01:40:00	5.91 pH	23.80 °C	2,762.5 µS/cm	0.00 mg/L	17.00 NTU	8.5 mV	39.20 ft	225.00 ml/min
10/11/2022 1:45 PM	01:45:00	5.90 pH	24.33 °C	2,793.2 µS/cm	0.04 mg/L	14.00 NTU	11.3 mV	39.20 ft	225.00 ml/min
10/11/2022 1:50 PM	01:50:00	5.89 pH	23.61 °C	2,795.0 µS/cm	-0.01 mg/L	11.00 NTU	19.3 mV	39.20 ft	225.00 ml/min
10/11/2022 1:55 PM	01:55:00	5.87 pH	24.38 °C	2,808.2 µS/cm	0.11 mg/L	9.84 NTU	22.8 mV	39.20 ft	225.00 ml/min
10/11/2022 2:00 PM	02:00:00	5.86 pH	23.90 °C	2,812.6 µS/cm	-0.03 mg/L	8.12 NTU	28.6 mV	39.20 ft	225.00 ml/min
10/11/2022 2:05 PM	02:05:00	5.85 pH	23.25 °C	2,819.1 µS/cm	-0.03 mg/L	7.59 NTU	31.7 mV	39.20 ft	225.00 ml/min
10/11/2022 2:10 PM	02:10:00	5.83 pH	23.19 °C	2,821.6 µS/cm	-0.02 mg/L	6.11 NTU	32.7 mV	39.20 ft	225.00 ml/min
10/11/2022 2:15 PM	02:15:00	5.82 pH	23.49 °C	2,824.2 µS/cm	-0.01 mg/L	5.46 NTU	32.4 mV	39.20 ft	225.00 ml/min
10/11/2022 2:20 PM	02:20:00	5.81 pH	23.62 °C	2,816.1 µS/cm	0.00 mg/L	4.31 NTU	32.9 mV	39.20 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 10/6/2022 2:28:22 PM

Project: Plant Branch Ash Pond

Operator Name: Taylor Goble

<b>Location Name: PZ-67</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 31.22 ft</b> <b>Total Depth: 41.22 ft</b> <b>Initial Depth to Water: 31.17 ft</b>	<b>Pump Type: Mega Monsoon Pro</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 36 ft</b> <b>Estimated Total Volume Pumped: 8022.667 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 60 ml/min</b> <b>Final Draw Down: 3.53 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
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## Test Notes:

No sample. Field parameters only.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
10/6/2022 2:28 PM	00:00	4.49 pH	32.24 °C	3,401.2 µS/cm	4.11 mg/L	57.50 NTU	98.7 mV	31.55 ft	110.00 ml/min
10/6/2022 2:33 PM	05:00	3.98 pH	24.95 °C	3,843.2 µS/cm	0.88 mg/L	53.40 NTU	99.3 mV	31.82 ft	110.00 ml/min
10/6/2022 2:38 PM	10:00	3.92 pH	25.23 °C	3,896.8 µS/cm	0.23 mg/L	47.20 NTU	103.7 mV	32.17 ft	110.00 ml/min
10/6/2022 2:42 PM	14:05	3.90 pH	25.34 °C	3,930.9 µS/cm	0.18 mg/L	46.10 NTU	107.2 mV	32.28 ft	110.00 ml/min
10/6/2022 2:43 PM	15:12	3.90 pH	25.39 °C	3,948.3 µS/cm	0.17 mg/L	46.70 NTU	108.0 mV	32.52 ft	110.00 ml/min
10/6/2022 2:48 PM	20:12	3.90 pH	25.62 °C	3,976.8 µS/cm	0.14 mg/L	42.80 NTU	111.3 mV	32.78 ft	110.00 ml/min
10/6/2022 2:51 PM	22:49	3.91 pH	25.77 °C	3,973.6 µS/cm	0.13 mg/L	41.50 NTU	112.5 mV	32.87 ft	110.00 ml/min
10/6/2022 2:56 PM	27:54	3.92 pH	26.14 °C	3,930.8 µS/cm	0.13 mg/L	38.70 NTU	115.0 mV	32.96 ft	70.00 ml/min
10/6/2022 3:01 PM	32:54	3.91 pH	26.86 °C	3,950.3 µS/cm	0.11 mg/L	36.60 NTU	116.2 mV	33.08 ft	70.00 ml/min
10/6/2022 3:06 PM	37:54	3.91 pH	26.66 °C	3,928.1 µS/cm	0.11 mg/L	35.90 NTU	118.4 mV	33.20 ft	70.00 ml/min
10/6/2022 3:11 PM	42:54	3.91 pH	26.78 °C	3,918.0 µS/cm	0.10 mg/L	35.60 NTU	119.9 mV	33.31 ft	70.00 ml/min
10/6/2022 3:16 PM	47:54	3.91 pH	27.24 °C	3,905.1 µS/cm	0.08 mg/L	28.60 NTU	121.3 mV	33.50 ft	70.00 ml/min
10/6/2022 3:21 PM	52:54	3.91 pH	27.28 °C	3,912.5 µS/cm	0.07 mg/L	22.20 NTU	122.7 mV	33.69 ft	70.00 ml/min
10/6/2022 3:26 PM	57:54	3.92 pH	27.48 °C	3,910.8 µS/cm	0.07 mg/L	20.50 NTU	124.0 mV	33.75 ft	70.00 ml/min
10/6/2022 3:32 PM	01:03:40	4.45 pH	28.28 °C	31.24 µS/cm	7.38 mg/L	19.30 NTU	155.9 mV	33.92 ft	70.00 ml/min



10/6/2022 3:37 PM	01:08:40	3.93 pH	28.06 °C	3,908.8 µS/cm	0.85 mg/L	18.80 NTU	127.3 mV	34.09 ft	60.00 ml/min
10/6/2022 3:42 PM	01:13:40	3.94 pH	28.26 °C	3,868.7 µS/cm	0.09 mg/L	16.40 NTU	128.0 mV	34.16 ft	60.00 ml/min
10/6/2022 3:47 PM	01:18:40	3.94 pH	28.40 °C	3,826.6 µS/cm	0.05 mg/L	11.10 NTU	128.5 mV	34.24 ft	60.00 ml/min
10/6/2022 3:52 PM	01:23:40	3.93 pH	29.95 °C	3,808.7 µS/cm	0.02 mg/L	10.40 NTU	128.7 mV	34.30 ft	60.00 ml/min
10/6/2022 3:57 PM	01:28:40	4.00 pH	28.01 °C	3,647.3 µS/cm	0.15 mg/L	7.52 NTU	130.8 mV	34.40 ft	60.00 ml/min
10/6/2022 4:02 PM	01:33:40	3.97 pH	28.54 °C	3,724.4 µS/cm	0.07 mg/L	6.12 NTU	130.4 mV	34.50 ft	60.00 ml/min
10/6/2022 4:07 PM	01:38:40	4.00 pH	29.01 °C	3,589.4 µS/cm	1.05 mg/L	6.65 NTU	132.0 mV	34.60 ft	60.00 ml/min
10/6/2022 4:12 PM	01:43:40	3.97 pH	29.32 °C	3,688.0 µS/cm	0.10 mg/L	4.88 NTU	132.0 mV	34.70 ft	60.00 ml/min

## Samples

Sample ID:	Description:
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## Plant Branch Surface Water Samples 08/24/2022

Sample ID	Total Depth (ft)	Sample Depth (ft)	Time	Temp(F)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance (mS/cm)	Coordinates
LR-1 (surface)	44.3	Surface	1152	84.56	6.99	133.1	5.03	4.81	0.078	33.178603, -83.317692
LR-1 (mid)		22.1	1150	84.02	7.10	143.2	5.39	7.43	0.080	
LR-1 (bottom)		44.3	1145	83.84	7.12	144.6	5.41	8.57	0.079	
LR+8A (surface)	9.8	Surface	1205	84.92	7.11	137.9	6.08	3.42	0.075	33.188793, -83.298479
LR+9A (surface)	9.8	Surface	1211	84.92	7.11	137.1	6.08	3.65	0.076	33.190136, -83.297139
LR+8 (surface)	22.1	Surface	1133	84.73	7.10	136.3	5.93	3.90	0.076	33.187322, -83.296928
LR+8 (mid)		11.0	1124	84.02	7.18	145.5	6.19	4.79	0.077	
LR+8 (bottom)		22.1	1130	84.38	7.15	137.8	6.09	4.57	0.076	
LR+9 (surface)	52.9	Surface	1115	84.74	7.08	133.6	5.81	4.11	0.075	33.189500, -83.295199
LR+9 (mid)		26.0	1109	84.38	7.17	136.2	6.05	5.86	0.077	
LR+9 (bottom)		52.9	1113	84.56	7.14	134.2	6.09	8.32	0.076	
LR-10 (surface)	27.9	Surface	1045	84.56	7.05	157.0	5.82	4.24	0.073	33.188519, -83.284506
LR-10 (mid)		14.0	1058	71.42	7.15	140.9	6.17	4.93	0.074	
LR-10 (bottom)		27.9	1052	71.42	7.16	148.1	6.34	5.95	0.077	

January/February 2023

# Low-Flow Test Report:

**Test Date / Time:** 1/24/2023 10:10:21 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: BRGWA-2I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 54.3 ft</b> <b>Total Depth: 64.3 ft</b> <b>Initial Depth to Water: 10.63 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 59 ft</b> <b>Estimated Total Volume Pumped: 8.2 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 33 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Sunny, sample time-1105

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/24/2023 10:10 AM	00:00	6.83 pH	9.42 °C	107.72 µS/cm	3.45 mg/L	3.09 NTU	100.5 mV	10.63 ft	150.00 ml/min
1/24/2023 10:15 AM	05:00	6.67 pH	14.47 °C	105.20 µS/cm	0.75 mg/L	2.21 NTU	53.8 mV	11.80 ft	150.00 ml/min
1/24/2023 10:20 AM	10:00	6.81 pH	15.08 °C	105.35 µS/cm	0.73 mg/L	1.27 NTU	48.9 mV	12.50 ft	150.00 ml/min
1/24/2023 10:25 AM	15:00	6.88 pH	15.39 °C	105.76 µS/cm	0.63 mg/L	1.39 NTU	48.8 mV	13.00 ft	150.00 ml/min
1/24/2023 10:30 AM	20:00	6.90 pH	15.51 °C	105.92 µS/cm	0.49 mg/L	1.64 NTU	49.2 mV	13.20 ft	150.00 ml/min
1/24/2023 10:35 AM	25:00	6.91 pH	15.49 °C	107.98 µS/cm	0.34 mg/L	1.43 NTU	49.0 mV	13.30 ft	150.00 ml/min
1/24/2023 10:40 AM	30:00	6.93 pH	15.62 °C	115.36 µS/cm	0.29 mg/L	1.22 NTU	50.1 mV	13.30 ft	150.00 ml/min
1/24/2023 10:45 AM	35:00	6.91 pH	15.62 °C	114.77 µS/cm	0.37 mg/L	1.83 NTU	44.8 mV	13.30 ft	150.00 ml/min
1/24/2023 10:50 AM	40:00	6.82 pH	15.73 °C	109.74 µS/cm	0.53 mg/L	1.68 NTU	43.7 mV	13.30 ft	150.00 ml/min
1/24/2023 10:55 AM	45:00	6.75 pH	16.02 °C	105.52 µS/cm	0.66 mg/L	1.22 NTU	42.9 mV	13.30 ft	150.00 ml/min
1/24/2023 11:00 AM	50:00	6.72 pH	16.11 °C	103.10 µS/cm	0.74 mg/L	1.77 NTU	42.4 mV	13.30 ft	150.00 ml/min
1/24/2023 11:05 AM	55:00	6.70 pH	15.89 °C	102.25 µS/cm	0.79 mg/L	1.69 NTU	42.8 mV	13.30 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/24/2023 10:15:35 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Dever Johnson

<b>Location Name: BRGWA-2S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 34.6 ft</b> <b>Total Depth: 44.6 ft</b> <b>Initial Depth to Water: 10.67 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 39.6 ft</b> <b>Estimated Total Volume Pumped: 6.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 0.3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sunny, sample time-1045

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/24/2023 10:15 AM	00:00	5.69 pH	16.76 °C	67.30 µS/cm	3.71 mg/L	1.08 NTU	116.8 mV	10.69 ft	225.00 ml/min
1/24/2023 10:16 AM	00:30	5.63 pH	16.48 °C	67.03 µS/cm	3.77 mg/L	0.59 NTU	112.3 mV	10.92 ft	225.00 ml/min
1/24/2023 10:20 AM	05:13	5.46 pH	16.42 °C	51.66 µS/cm	3.80 mg/L	0.60 NTU	109.3 mV	10.92 ft	225.00 ml/min
1/24/2023 10:25 AM	10:13	5.39 pH	16.04 °C	65.43 µS/cm	3.94 mg/L	0.50 NTU	108.0 mV	10.92 ft	225.00 ml/min
1/24/2023 10:30 AM	15:13	5.33 pH	15.41 °C	65.70 µS/cm	4.23 mg/L	0.53 NTU	106.6 mV	10.92 ft	225.00 ml/min
1/24/2023 10:35 AM	20:13	5.29 pH	15.71 °C	65.21 µS/cm	4.19 mg/L	0.71 NTU	106.7 mV	10.92 ft	225.00 ml/min
1/24/2023 10:40 AM	25:13	5.27 pH	15.86 °C	64.65 µS/cm	4.23 mg/L	0.54 NTU	105.7 mV	10.92 ft	225.00 ml/min
1/24/2023 10:45 AM	30:13	5.26 pH	15.58 °C	65.34 µS/cm	4.39 mg/L	0.64 NTU	105.1 mV	10.92 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:10:28 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: BRGWA-5I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.89 ft</b> <b>Total Depth: 63.89 ft</b> <b>Initial Depth to Water: 12.4 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 10 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884186</b>
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## Test Notes:

Sample time 10:50. Sunny 40s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/24/2023 10:10 AM	00:00	6.59 pH	14.22 °C	125.40 µS/cm	5.07 mg/L	3.04 NTU	158.5 mV	12.40 ft	250.00 ml/min
1/24/2023 10:15 AM	05:00	6.46 pH	16.39 °C	145.68 µS/cm	2.10 mg/L	2.72 NTU	130.1 mV	12.70 ft	250.00 ml/min
1/24/2023 10:20 AM	10:00	6.45 pH	16.64 °C	147.40 µS/cm	1.50 mg/L	2.84 NTU	120.0 mV	12.70 ft	250.00 ml/min
1/24/2023 10:25 AM	15:00	6.45 pH	16.83 °C	145.94 µS/cm	1.89 mg/L	2.35 NTU	134.0 mV	12.70 ft	250.00 ml/min
1/24/2023 10:30 AM	20:00	6.44 pH	16.79 °C	141.85 µS/cm	2.45 mg/L	1.57 NTU	136.5 mV	12.70 ft	250.00 ml/min
1/24/2023 10:35 AM	25:00	6.43 pH	16.75 °C	139.76 µS/cm	2.82 mg/L	1.87 NTU	137.8 mV	12.70 ft	250.00 ml/min
1/24/2023 10:40 AM	30:00	6.40 pH	16.88 °C	138.24 µS/cm	3.00 mg/L	1.58 NTU	138.1 mV	12.70 ft	250.00 ml/min
1/24/2023 10:45 AM	35:00	6.43 pH	16.92 °C	137.16 µS/cm	3.16 mg/L	0.79 NTU	135.5 mV	12.70 ft	250.00 ml/min
1/24/2023 10:50 AM	40:00	6.42 pH	17.02 °C	135.71 µS/cm	3.33 mg/L	1.13 NTU	135.3 mV	12.70 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:00:50 AM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: BRGWA-5S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33.06 ft</b> <b>Total Depth: 43.06 ft</b> <b>Initial Depth to Water: 12.54 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 38 ft</b> <b>Estimated Total Volume Pumped: 5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 175 ml/min</b> <b>Final Draw Down: 0.72 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sunny, sampled at 1031, Fe2+=0.0mg

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/24/2023 10:00 AM	00:00	6.68 pH	13.08 °C	160.99 µS/cm	8.96 mg/L	3.99 NTU	161.4 mV	12.54 ft	150.00 ml/min
1/24/2023 10:05 AM	05:00	6.37 pH	14.65 °C	148.88 µS/cm	4.38 mg/L	3.07 NTU	88.3 mV	12.60 ft	150.00 ml/min
1/24/2023 10:10 AM	10:00	6.40 pH	17.14 °C	148.81 µS/cm	2.47 mg/L	4.09 NTU	78.1 mV	12.60 ft	175.00 ml/min
1/24/2023 10:15 AM	15:00	6.42 pH	17.54 °C	153.45 µS/cm	2.25 mg/L	5.11 NTU	69.7 mV	12.60 ft	175.00 ml/min
1/24/2023 10:20 AM	20:00	6.45 pH	17.50 °C	155.42 µS/cm	1.97 mg/L	3.61 NTU	67.1 mV	12.60 ft	175.00 ml/min
1/24/2023 10:25 AM	25:00	6.47 pH	17.63 °C	156.95 µS/cm	1.93 mg/L	4.72 NTU	65.6 mV	12.60 ft	175.00 ml/min
1/24/2023 10:30 AM	30:00	6.47 pH	17.59 °C	157.20 µS/cm	1.90 mg/L	3.61 NTU	65.0 mV	12.60 ft	175.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:22:37 AM

Project: Plant Branch Ash Ponds

Operator Name: Taylor Goble

<b>Location Name: BRGWA-6S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.86 ft</b> <b>Total Depth: 52.86 ft</b> <b>Initial Depth to Water: 25.69 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 47 ft</b> <b>Estimated Total Volume Pumped: 6900 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 230 ml/min</b> <b>Final Draw Down: 0.7 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 877800</b>
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## Test Notes:

Sampled at 1053. Sunny 40 degrees.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/24/2023 10:22 AM	00:00	8.04 pH	17.32 °C	83.76 µS/cm	7.59 mg/L	3.14 NTU	113.7 mV	26.19 ft	230.00 ml/min
1/24/2023 10:27 AM	05:00	6.93 pH	17.45 °C	52.65 µS/cm	6.54 mg/L	3.01 NTU	13.9 mV	26.27 ft	230.00 ml/min
1/24/2023 10:32 AM	10:00	6.66 pH	17.57 °C	52.60 µS/cm	6.38 mg/L	1.40 NTU	15.5 mV	26.39 ft	230.00 ml/min
1/24/2023 10:37 AM	15:00	6.59 pH	17.51 °C	52.57 µS/cm	6.34 mg/L	1.28 NTU	18.2 mV	26.39 ft	230.00 ml/min
1/24/2023 10:42 AM	20:00	6.57 pH	17.63 °C	52.18 µS/cm	6.29 mg/L	1.02 NTU	20.8 mV	26.39 ft	230.00 ml/min
1/24/2023 10:47 AM	25:00	6.56 pH	17.50 °C	52.74 µS/cm	6.34 mg/L	1.07 NTU	22.8 mV	26.39 ft	230.00 ml/min
1/24/2023 10:52 AM	30:00	6.54 pH	17.51 °C	53.27 µS/cm	6.98 mg/L	0.96 NTU	27.6 mV	26.39 ft	230.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/24/2023 2:10:12 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: BRGWA-12I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 67.6 ft</b> <b>Total Depth: 77.6 ft</b> <b>Initial Depth to Water: 49.5 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 72 ft</b> <b>Estimated Total Volume Pumped: 4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 31.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sunny, sampled at 1450, Fe2+= 0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/24/2023 2:10 PM	00:00	7.34 pH	21.41 °C	119.99 µS/cm	7.71 mg/L	0.93 NTU	100.1 mV	49.50 ft	100.00 ml/min
1/24/2023 2:15 PM	05:00	6.68 pH	19.64 °C	129.55 µS/cm	5.29 mg/L	0.47 NTU	98.0 mV	50.40 ft	100.00 ml/min
1/24/2023 2:20 PM	10:00	6.52 pH	19.48 °C	153.81 µS/cm	2.14 mg/L	1.74 NTU	95.7 mV	50.90 ft	100.00 ml/min
1/24/2023 2:25 PM	15:00	6.53 pH	19.59 °C	159.34 µS/cm	1.47 mg/L	5.93 NTU	93.4 mV	51.80 ft	100.00 ml/min
1/24/2023 2:30 PM	20:00	6.50 pH	19.68 °C	147.79 µS/cm	1.41 mg/L	5.63 NTU	90.8 mV	52.00 ft	100.00 ml/min
1/24/2023 2:35 PM	25:00	6.49 pH	19.70 °C	144.51 µS/cm	1.61 mg/L	3.72 NTU	89.8 mV	52.10 ft	100.00 ml/min
1/24/2023 2:40 PM	30:00	6.49 pH	19.70 °C	142.80 µS/cm	1.79 mg/L	2.67 NTU	88.2 mV	52.10 ft	100.00 ml/min
1/24/2023 2:45 PM	35:00	6.48 pH	19.75 °C	142.21 µS/cm	1.82 mg/L	1.44 NTU	96.1 mV	52.10 ft	100.00 ml/min
1/24/2023 2:50 PM	40:00	6.48 pH	19.75 °C	142.03 µS/cm	1.86 mg/L	1.28 NTU	95.4 mV	52.10 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/24/2023 12:10:08 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: BRGWA-12S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 48.3 ft</b> <b>Total Depth: 58.3 ft</b> <b>Initial Depth to Water: 49.88 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 53 ft</b> <b>Estimated Total Volume Pumped: 18 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 6.24 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sunny, sampled at 1310, Fe2+= 0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/24/2023 12:10 PM	00:00	5.88 pH	18.81 °C	65.16 µS/cm	7.15 mg/L	5.34 NTU	103.5 mV	49.88 ft	300.00 ml/min
1/24/2023 12:15 PM	05:00	5.89 pH	18.90 °C	70.99 µS/cm	6.75 mg/L	3.27 NTU	101.3 mV	50.40 ft	300.00 ml/min
1/24/2023 12:20 PM	10:00	5.96 pH	18.86 °C	75.48 µS/cm	6.93 mg/L	2.04 NTU	98.0 mV	50.40 ft	300.00 ml/min
1/24/2023 12:25 PM	15:00	5.95 pH	18.88 °C	75.60 µS/cm	6.90 mg/L	1.38 NTU	96.8 mV	50.40 ft	300.00 ml/min
1/24/2023 12:30 PM	20:00	5.97 pH	18.90 °C	76.47 µS/cm	7.01 mg/L	0.91 NTU	95.2 mV	50.40 ft	300.00 ml/min
1/24/2023 12:35 PM	25:00	5.96 pH	18.91 °C	77.43 µS/cm	7.04 mg/L	0.89 NTU	94.6 mV	50.40 ft	300.00 ml/min
1/24/2023 12:40 PM	30:00	5.95 pH	18.95 °C	77.85 µS/cm	7.05 mg/L	0.74 NTU	94.3 mV	50.40 ft	300.00 ml/min
1/24/2023 12:45 PM	35:00	5.97 pH	18.95 °C	78.66 µS/cm	7.07 mg/L	0.59 NTU	92.9 mV	50.40 ft	300.00 ml/min
1/24/2023 12:50 PM	40:00	5.96 pH	18.96 °C	79.02 µS/cm	7.09 mg/L	0.41 NTU	92.4 mV	50.40 ft	300.00 ml/min
1/24/2023 12:55 PM	45:00	5.97 pH	19.01 °C	79.42 µS/cm	7.10 mg/L	0.66 NTU	103.9 mV	50.40 ft	300.00 ml/min
1/24/2023 1:00 PM	50:00	5.97 pH	18.99 °C	79.59 µS/cm	7.10 mg/L	0.67 NTU	92.1 mV	50.40 ft	300.00 ml/min
1/24/2023 1:05 PM	55:00	5.96 pH	19.00 °C	79.54 µS/cm	7.06 mg/L	0.34 NTU	92.5 mV	50.40 ft	300.00 ml/min
1/24/2023 1:10 PM	01:00:00	5.97 pH	19.10 °C	79.98 µS/cm	7.10 mg/L	0.47 NTU	102.8 mV	50.40 ft	300.00 ml/min

**Samples**

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 1/24/2023 12:30:08 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Dever Johnson

<b>Location Name: BRGWA-23S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33.87 ft</b> <b>Total Depth: 43.87 ft</b> <b>Initial Depth to Water: 40.78 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 35.78 m</b> <b>Estimated Total Volume Pumped: 8.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 125 ml/min</b> <b>Final Draw Down: 28.35 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

No sample taken. Changed water quality meter.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/24/2023 12:30 PM	00:00	5.32 pH	20.06 °C	111.04 µS/cm	4.37 mg/L	18.00 NTU	141.6 mV	40.78 ft	125.00 ml/min
1/24/2023 12:35 PM	05:00	5.09 pH	18.37 °C	112.48 µS/cm	2.67 mg/L	17.90 NTU	143.3 mV	40.78 ft	125.00 ml/min
1/24/2023 12:40 PM	10:00	5.00 pH	18.04 °C	115.94 µS/cm	1.93 mg/L	11.90 NTU	142.7 mV	40.78 ft	125.00 ml/min
1/24/2023 12:45 PM	15:00	4.98 pH	18.08 °C	116.74 µS/cm	2.04 mg/L	5.48 NTU	140.2 mV	40.78 ft	125.00 ml/min
1/24/2023 12:50 PM	20:00	4.98 pH	18.16 °C	114.99 µS/cm	2.43 mg/L	3.61 NTU	138.3 mV	40.78 ft	125.00 ml/min
1/24/2023 12:55 PM	25:00	4.97 pH	17.80 °C	112.16 µS/cm	2.91 mg/L	2.29 NTU	137.2 mV	40.78 ft	125.00 ml/min
1/24/2023 1:00 PM	30:00	4.94 pH	17.63 °C	109.76 µS/cm	3.30 mg/L	2.14 NTU	136.1 mV	40.78 ft	125.00 ml/min
1/24/2023 1:05 PM	35:00	4.93 pH	17.84 °C	108.21 µS/cm	3.53 mg/L	1.56 NTU	134.9 mV	40.78 ft	125.00 ml/min
1/24/2023 1:10 PM	40:00	4.93 pH	17.90 °C	105.73 µS/cm	3.68 mg/L	1.47 NTU	133.9 mV	40.78 ft	125.00 ml/min
1/24/2023 1:15 PM	45:00	4.92 pH	17.63 °C	105.38 µS/cm	3.87 mg/L	1.29 NTU	133.6 mV	40.78 ft	125.00 ml/min
1/24/2023 1:20 PM	50:00	4.92 pH	17.28 °C	104.49 µS/cm	4.05 mg/L	1.19 NTU	133.3 mV	40.78 ft	125.00 ml/min
1/24/2023 1:25 PM	55:00	4.92 pH	16.96 °C	104.59 µS/cm	4.25 mg/L	1.14 NTU	132.8 mV	40.78 ft	125.00 ml/min
1/24/2023 1:30 PM	01:00:00	4.92 pH	16.91 °C	103.69 µS/cm	4.37 mg/L	1.83 NTU	132.6 mV	40.78 ft	125.00 ml/min
1/24/2023 1:35 PM	01:05:00	4.92 pH	17.00 °C	103.56 µS/cm	4.47 mg/L	2.06 NTU	132.5 mV	40.78 ft	125.00 ml/min
1/24/2023 1:40 PM	01:10:00	4.92 pH	16.75 °C	104.00 µS/cm	4.57 mg/L	1.12 NTU	132.7 mV	40.78 ft	125.00 ml/min

**Samples**

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 1/24/2023 1:45:08 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Dever Johnson

<b>Location Name: BRGWA-23S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33.87 ft</b> <b>Total Depth: 43.87 ft</b> <b>Initial Depth to Water: 40.78 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 38.87 ft</b> <b>Estimated Total Volume Pumped: 6.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843285</b>
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## Test Notes:

Water level below pump. Final draw down NA. Sunny, sample time 1415.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/24/2023 1:45 PM	00:00	8.03 pH	12.84 °C	74.55 µS/cm	10.74 mg/L	1.02 NTU	221.4 mV	NA	225.00 ml/min
1/24/2023 1:50 PM	05:00	5.75 pH	16.80 °C	69.42 µS/cm	4.80 mg/L	0.65 NTU	170.8 mV	NA	225.00 ml/min
1/24/2023 1:55 PM	10:00	5.75 pH	17.12 °C	70.15 µS/cm	4.84 mg/L	0.40 NTU	166.0 mV	NA	225.00 ml/min
1/24/2023 2:00 PM	15:00	5.75 pH	16.68 °C	69.70 µS/cm	4.85 mg/L	0.41 NTU	168.1 mV	NA	225.00 ml/min
1/24/2023 2:05 PM	20:00	5.75 pH	16.48 °C	69.73 µS/cm	4.92 mg/L	0.43 NTU	168.8 mV	NA	225.00 ml/min
1/24/2023 2:10 PM	25:00	5.76 pH	16.50 °C	68.09 µS/cm	5.01 mg/L	0.44 NTU	166.3 mV	NA	225.00 ml/min
1/24/2023 2:15 PM	30:00	5.76 pH	16.63 °C	67.22 µS/cm	5.15 mg/L	0.35 NTU	164.3 mV	NA	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 9:35:33 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: BRGWC-25I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 10.5 ft</b> <b>Total Depth: 20.5 ft</b> <b>Initial Depth to Water: 9.86 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 15 ft</b> <b>Estimated Total Volume Pumped: 12 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 0.14 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Sunny, sample time-1015

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/26/2023 9:35 AM	00:00	6.34 pH	7.24 °C	8.05 µS/cm	12.03 mg/L	4.11 NTU	283.1 mV	9.86 ft	300.00 ml/min
1/26/2023 9:40 AM	05:00	6.15 pH	14.63 °C	370.71 µS/cm	2.95 mg/L	3.62 NTU	139.8 mV	10.00 ft	300.00 ml/min
1/26/2023 9:45 AM	10:00	6.14 pH	15.66 °C	376.35 µS/cm	0.73 mg/L	3.88 NTU	122.7 mV	10.00 ft	300.00 ml/min
1/26/2023 9:50 AM	15:00	6.15 pH	15.76 °C	376.31 µS/cm	0.43 mg/L	2.31 NTU	153.8 mV	10.00 ft	300.00 ml/min
1/26/2023 9:55 AM	20:00	6.16 pH	15.79 °C	377.80 µS/cm	0.36 mg/L	1.97 NTU	103.1 mV	10.00 ft	300.00 ml/min
1/26/2023 10:00 AM	25:00	6.17 pH	15.87 °C	378.50 µS/cm	0.34 mg/L	1.59 NTU	134.1 mV	10.00 ft	300.00 ml/min
1/26/2023 10:05 AM	30:00	6.17 pH	16.18 °C	378.79 µS/cm	0.33 mg/L	1.75 NTU	93.2 mV	10.00 ft	300.00 ml/min
1/26/2023 10:10 AM	35:00	6.18 pH	16.28 °C	378.41 µS/cm	0.33 mg/L	1.11 NTU	88.6 mV	10.00 ft	300.00 ml/min
1/26/2023 10:15 AM	40:00	6.18 pH	16.04 °C	378.43 µS/cm	0.32 mg/L	1.24 NTU	84.9 mV	10.00 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/25/2023 12:55:02 PM

Project: Plant Branch Ash Ponds

Operator Name: Dever Johnson

<b>Location Name: BRGWC-271</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14 ft</b> <b>Total Depth: 24 ft</b> <b>Initial Depth to Water: 10.43 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 19 ft</b> <b>Estimated Total Volume Pumped: 10 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.48 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843285</b>
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## Test Notes:

Light rain, sample time 1345

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/25/2023 12:55 PM	00:00	6.27 pH	17.83 °C	396.49 µS/cm	6.39 mg/L	0.41 NTU	177.4 mV	10.43 ft	200.00 ml/min
1/25/2023 1:00 PM	05:00	5.57 pH	18.53 °C	314.54 µS/cm	0.33 mg/L	0.23 NTU	170.1 mV	10.43 ft	200.00 ml/min
1/25/2023 1:05 PM	10:00	5.55 pH	18.43 °C	314.77 µS/cm	0.27 mg/L	0.15 NTU	166.2 mV	10.47 ft	200.00 ml/min
1/25/2023 1:10 PM	15:00	5.55 pH	18.58 °C	326.60 µS/cm	0.26 mg/L	0.30 NTU	181.5 mV	10.47 ft	200.00 ml/min
1/25/2023 1:15 PM	20:00	5.57 pH	18.60 °C	330.42 µS/cm	0.23 mg/L	0.11 NTU	178.9 mV	10.47 ft	200.00 ml/min
1/25/2023 1:20 PM	25:00	5.57 pH	18.65 °C	332.26 µS/cm	0.22 mg/L	0.11 NTU	177.0 mV	10.47 ft	200.00 ml/min
1/25/2023 1:25 PM	30:00	5.58 pH	18.64 °C	329.98 µS/cm	0.22 mg/L	0.12 NTU	156.6 mV	10.47 ft	200.00 ml/min
1/25/2023 1:30 PM	35:00	5.59 pH	18.64 °C	331.18 µS/cm	0.21 mg/L	0.24 NTU	153.9 mV	10.47 ft	200.00 ml/min
1/25/2023 1:35 PM	40:00	5.61 pH	18.67 °C	340.79 µS/cm	0.20 mg/L	0.22 NTU	169.3 mV	10.47 ft	200.00 ml/min
1/25/2023 1:40 PM	45:00	5.62 pH	18.63 °C	344.35 µS/cm	0.20 mg/L	0.11 NTU	167.1 mV	10.47 ft	200.00 ml/min
1/25/2023 1:45 PM	50:00	5.63 pH	18.59 °C	343.18 µS/cm	0.20 mg/L	0.13 NTU	148.3 mV	10.47 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 11:00:05 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: BRGWC-29I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 10 ft</b> <b>Total Depth: 20 ft</b> <b>Initial Depth to Water: 9.87 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 15 ft</b> <b>Estimated Total Volume Pumped: 9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Sunny, sample time-1130, Fe2+=5.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/26/2023 11:00 AM	00:00	6.83 pH	16.74 °C	0.25 µS/cm	9.75 mg/L	2.81 NTU	98.1 mV	9.87 ft	300.00 ml/min
1/26/2023 11:05 AM	05:00	3.52 pH	17.14 °C	443.84 µS/cm	2.49 mg/L	2.10 NTU	236.6 mV	9.95 ft	300.00 ml/min
1/26/2023 11:10 AM	10:00	3.99 pH	17.55 °C	426.15 µS/cm	0.63 mg/L	0.96 NTU	230.4 mV	9.95 ft	300.00 ml/min
1/26/2023 11:15 AM	15:00	4.19 pH	17.63 °C	423.06 µS/cm	0.27 mg/L	0.62 NTU	214.4 mV	9.95 ft	300.00 ml/min
1/26/2023 11:20 AM	20:00	4.25 pH	17.82 °C	422.08 µS/cm	0.23 mg/L	0.74 NTU	182.2 mV	9.95 ft	300.00 ml/min
1/26/2023 11:25 AM	25:00	4.27 pH	17.76 °C	422.31 µS/cm	0.21 mg/L	0.59 NTU	207.9 mV	9.95 ft	300.00 ml/min
1/26/2023 11:30 AM	30:00	4.30 pH	17.68 °C	423.84 µS/cm	0.20 mg/L	0.44 NTU	178.5 mV	9.95 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/25/2023 3:15:21 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Dever Johnson

<p><b>Location Name: BRGWC-30I</b>  <b>Well Diameter: 2 in</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 ft</b>  <b>Top of Screen: 10.3 ft</b>  <b>Total Depth: 20.3 ft</b>  <b>Initial Depth to Water: 4.69 ft</b></p>	<p><b>Pump Type: Ded Bladder Pump</b>  <b>Tubing Type: Poly</b>  <b>Pump Intake From TOC: 15.3 ft</b>  <b>Estimated Total Volume Pumped: 21.375 liter</b>  <b>Flow Cell Volume: 90 ml</b>  <b>Final Flow Rate: 225 ml/min</b>  <b>Final Draw Down: 2.88 in</b></p>	<p><b>Instrument Used: Aqua TROLL 400</b>  <b>Serial Number: 843285</b></p>
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**Test Notes:**

Site closing. Will resume purging 1/26/2023 in morning.

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/25/2023 3:15 PM	00:00	6.24 pH	18.35 °C	1,657.8 µS/cm	0.37 mg/L	105.00 NTU	122.5 mV	4.69 ft	225.00 ml/min
1/25/2023 3:20 PM	05:00	6.27 pH	17.75 °C	1,672.7 µS/cm	0.21 mg/L	103.00 NTU	126.2 mV	4.69 ft	225.00 ml/min
1/25/2023 3:25 PM	10:00	6.27 pH	17.61 °C	1,661.6 µS/cm	0.21 mg/L	106.00 NTU	110.4 mV	4.69 ft	225.00 ml/min
1/25/2023 3:30 PM	15:00	6.27 pH	17.62 °C	1,651.6 µS/cm	0.23 mg/L	103.00 NTU	106.6 mV	4.93 ft	225.00 ml/min
1/25/2023 3:35 PM	20:00	6.27 pH	17.57 °C	1,651.6 µS/cm	0.23 mg/L	56.80 NTU	104.6 mV	4.93 ft	225.00 ml/min
1/25/2023 3:40 PM	25:00	6.27 pH	17.64 °C	1,654.8 µS/cm	0.22 mg/L	46.00 NTU	102.9 mV	4.93 ft	225.00 ml/min
1/25/2023 3:45 PM	30:00	6.27 pH	17.71 °C	1,654.3 µS/cm	0.22 mg/L	35.60 NTU	101.3 mV	4.93 ft	225.00 ml/min
1/25/2023 3:50 PM	35:00	6.27 pH	17.66 °C	1,653.6 µS/cm	0.21 mg/L	29.00 NTU	100.3 mV	4.93 ft	225.00 ml/min
1/25/2023 3:55 PM	40:00	6.27 pH	17.65 °C	1,625.1 µS/cm	0.21 mg/L	23.90 NTU	106.7 mV	4.93 ft	225.00 ml/min
1/25/2023 4:00 PM	45:00	6.27 pH	17.66 °C	1,627.6 µS/cm	0.22 mg/L	17.90 NTU	106.5 mV	4.93 ft	225.00 ml/min
1/25/2023 4:05 PM	50:00	6.27 pH	17.66 °C	1,651.0 µS/cm	0.20 mg/L	19.70 NTU	98.5 mV	4.93 ft	225.00 ml/min
1/25/2023 4:10 PM	55:00	6.27 pH	17.66 °C	1,657.4 µS/cm	0.20 mg/L	17.50 NTU	97.4 mV	4.93 ft	225.00 ml/min
1/25/2023 4:15 PM	01:00:00	6.30 pH	17.70 °C	1,654.8 µS/cm	0.32 mg/L	17.30 NTU	95.0 mV	4.93 ft	225.00 ml/min
1/25/2023 4:20 PM	01:05:00	6.28 pH	17.73 °C	1,642.6 µS/cm	0.20 mg/L	14.40 NTU	94.4 mV	4.93 ft	225.00 ml/min
1/25/2023 4:25 PM	01:10:00	6.27 pH	17.73 °C	1,652.1 µS/cm	0.18 mg/L	16.10 NTU	93.0 mV	4.93 ft	225.00 ml/min

1/25/2023 4:30 PM	01:15:00	6.27 pH	17.74 °C	1,661.4 µS/cm	0.19 mg/L	12.50 NTU	92.4 mV	4.93 ft	225.00 ml/min
1/25/2023 4:35 PM	01:20:00	6.27 pH	17.71 °C	1,661.9 µS/cm	0.19 mg/L	16.10 NTU	91.8 mV	4.93 ft	225.00 ml/min
1/25/2023 4:40 PM	01:25:00	6.27 pH	17.74 °C	1,659.7 µS/cm	0.19 mg/L	12.50 NTU	91.4 mV	4.93 ft	225.00 ml/min
1/25/2023 4:45 PM	01:30:00	6.27 pH	17.73 °C	1,656.2 µS/cm	0.19 mg/L	11.30 NTU	91.0 mV	4.93 ft	225.00 ml/min
1/25/2023 4:50 PM	01:35:00	6.27 pH	17.71 °C	1,650.7 µS/cm	0.19 mg/L	11.00 NTU	90.8 mV	4.93 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 9:40:14 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Dever Johnson

<b>Location Name: BRGWC-30I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 10.3 ft</b> <b>Total Depth: 20.3 ft</b> <b>Initial Depth to Water: 4.91 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 15.3 ft</b> <b>Estimated Total Volume Pumped: 19.125 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 1.8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843285</b>
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## Test Notes:

Sunny Sampled at 1105.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/26/2023 9:40 AM	00:00	8.28 pH	15.45 °C	0.13 µS/cm	10.03 mg/L	17.80 NTU	40.8 mV	4.91 ft	225.00 ml/min
1/26/2023 9:45 AM	05:00	6.28 pH	16.47 °C	1,362.1 µS/cm	1.65 mg/L	18.50 NTU	118.2 mV	5.04 ft	225.00 ml/min
1/26/2023 9:50 AM	10:00	6.27 pH	17.17 °C	1,406.0 µS/cm	0.61 mg/L	14.40 NTU	128.7 mV	5.04 ft	225.00 ml/min
1/26/2023 9:55 AM	15:00	6.27 pH	17.42 °C	1,430.5 µS/cm	0.25 mg/L	11.90 NTU	115.6 mV	5.06 ft	225.00 ml/min
1/26/2023 10:00 AM	20:00	6.27 pH	17.63 °C	1,447.1 µS/cm	0.20 mg/L	9.50 NTU	111.5 mV	5.06 ft	225.00 ml/min
1/26/2023 10:05 AM	25:00	6.27 pH	17.79 °C	1,442.0 µS/cm	0.17 mg/L	14.40 NTU	107.5 mV	5.06 ft	225.00 ml/min
1/26/2023 10:10 AM	30:00	6.28 pH	17.79 °C	1,431.5 µS/cm	0.16 mg/L	11.50 NTU	104.3 mV	5.06 ft	225.00 ml/min
1/26/2023 10:15 AM	35:00	6.28 pH	17.35 °C	1,445.4 µS/cm	0.15 mg/L	8.13 NTU	101.4 mV	5.06 ft	225.00 ml/min
1/26/2023 10:20 AM	40:00	6.28 pH	17.72 °C	1,442.5 µS/cm	0.14 mg/L	5.96 NTU	98.5 mV	5.06 ft	225.00 ml/min
1/26/2023 10:25 AM	45:00	6.28 pH	17.84 °C	1,443.4 µS/cm	0.14 mg/L	6.29 NTU	96.3 mV	5.06 ft	225.00 ml/min
1/26/2023 10:30 AM	50:00	6.28 pH	17.85 °C	1,436.1 µS/cm	0.14 mg/L	5.39 NTU	94.8 mV	5.06 ft	225.00 ml/min
1/26/2023 10:35 AM	55:00	6.28 pH	17.75 °C	1,433.8 µS/cm	0.14 mg/L	5.15 NTU	92.8 mV	5.06 ft	225.00 ml/min
1/26/2023 10:40 AM	01:00:00	6.28 pH	17.55 °C	1,446.9 µS/cm	0.14 mg/L	4.70 NTU	90.8 mV	5.06 ft	225.00 ml/min
1/26/2023 10:45 AM	01:05:00	6.28 pH	17.89 °C	1,438.0 µS/cm	0.14 mg/L	6.05 NTU	89.6 mV	5.06 ft	225.00 ml/min
1/26/2023 10:50 AM	01:10:00	6.28 pH	17.79 °C	1,437.7 µS/cm	0.14 mg/L	4.81 NTU	87.7 mV	5.06 ft	225.00 ml/min

1/26/2023 10:55 AM	01:15:00	6.28 pH	17.76 °C	1,437.6 µS/cm	0.14 mg/L	4.79 NTU	86.5 mV	5.06 ft	225.00 ml/min
1/26/2023 11:00 AM	01:20:00	6.28 pH	17.90 °C	1,429.9 µS/cm	0.14 mg/L	3.45 NTU	91.5 mV	5.06 ft	225.00 ml/min
1/26/2023 11:05 AM	01:25:00	6.28 pH	17.90 °C	1,440.5 µS/cm	0.14 mg/L	3.78 NTU	84.3 mV	5.06 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/24/2023 2:26:08 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: BRGWC-32S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 38 ft</b> <b>Total Depth: 48.35 ft</b> <b>Initial Depth to Water: 42.28 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 46 ft</b> <b>Estimated Total Volume Pumped: 12.7 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 170 ml/min</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Sunny, sample time 1541, WL below top of pump, ferrous iron -0.0 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/24/2023 2:26 PM	00:00	6.45 pH	33.67 °C	0.00 µS/cm	7.12 mg/L	18.00 NTU	110.3 mV	44.00 ft	170.00 ml/min
1/24/2023 2:31 PM	05:00	6.14 pH	20.07 °C	375.30 µS/cm	5.91 mg/L	13.00 NTU	32.8 mV	44.00 ft	170.00 ml/min
1/24/2023 2:33 PM	07:50	6.10 pH	18.75 °C	388.40 µS/cm	4.72 mg/L	8.47 NTU	38.4 mV	44.00 ft	170.00 ml/min
1/24/2023 2:36 PM	10:10	6.09 pH	18.48 °C	389.45 µS/cm	4.37 mg/L	2.96 NTU	40.8 mV	44.00 ft	170.00 ml/min
1/24/2023 2:41 PM	15:10	6.09 pH	17.90 °C	391.09 µS/cm	7.97 mg/L	2.51 NTU	45.2 mV	44.00 ft	170.00 ml/min
1/24/2023 2:46 PM	20:10	6.05 pH	17.89 °C	394.17 µS/cm	9.19 mg/L	1.93 NTU	49.6 mV	44.00 ft	170.00 ml/min
1/24/2023 2:51 PM	25:10	6.05 pH	17.79 °C	394.86 µS/cm	9.11 mg/L	1.11 NTU	52.3 mV	44.00 ft	170.00 ml/min
1/24/2023 2:56 PM	30:10	6.05 pH	17.99 °C	396.70 µS/cm	9.09 mg/L	1.01 NTU	62.5 mV	44.00 ft	170.00 ml/min
1/24/2023 3:01 PM	35:10	6.04 pH	19.77 °C	401.02 µS/cm	9.09 mg/L	0.78 NTU	65.2 mV	44.00 ft	170.00 ml/min
1/24/2023 3:06 PM	40:10	6.04 pH	21.91 °C	399.24 µS/cm	8.70 mg/L	0.54 NTU	68.2 mV	44.00 ft	170.00 ml/min
1/24/2023 3:11 PM	45:10	6.04 pH	17.94 °C	394.15 µS/cm	9.24 mg/L	0.59 NTU	72.0 mV	44.00 ft	170.00 ml/min
1/24/2023 3:16 PM	50:10	6.06 pH	17.15 °C	395.51 µS/cm	8.30 mg/L	0.76 NTU	73.3 mV	44.00 ft	170.00 ml/min
1/24/2023 3:21 PM	55:10	6.09 pH	17.37 °C	399.27 µS/cm	4.52 mg/L	0.55 NTU	60.1 mV	44.00 ft	170.00 ml/min
1/24/2023 3:26 PM	01:00:10	6.09 pH	17.18 °C	389.46 µS/cm	5.41 mg/L	0.43 NTU	69.5 mV	44.00 ft	170.00 ml/min
1/24/2023 3:31 PM	01:05:10	6.06 pH	16.79 °C	399.54 µS/cm	9.19 mg/L	0.52 NTU	74.4 mV	44.00 ft	170.00 ml/min
1/24/2023 3:36 PM	01:10:10	6.05 pH	16.68 °C	400.02 µS/cm	9.34 mg/L	0.63 NTU	75.9 mV	44.00 ft	170.00 ml/min

1/24/2023 3:41 PM	01:15:10	6.05 pH	16.60 °C	400.49 µS/cm	9.37 mg/L	0.82 NTU	77.2 mV	44.00 ft	170.00 ml/min
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**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/25/2023 2:10:06 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: BRGWC-45</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 47 ft</b> <b>Total Depth: 57 ft</b> <b>Initial Depth to Water: 10.57 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 52 ft</b> <b>Estimated Total Volume Pumped: 7.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Light rain, sample time-1440, fe2+= 0.0mg/L, BRA-APBCD-FD-01 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/25/2023 2:10 PM	00:00	6.65 pH	21.02 °C	0.37 µS/cm	8.09 mg/L	2.57 NTU	90.2 mV	10.57 ft	250.00 ml/min
1/25/2023 2:15 PM	05:00	5.85 pH	20.54 °C	299.52 µS/cm	0.58 mg/L	3.91 NTU	98.9 mV	10.90 ft	250.00 ml/min
1/25/2023 2:20 PM	10:00	5.83 pH	20.39 °C	294.26 µS/cm	0.29 mg/L	4.12 NTU	125.1 mV	11.00 ft	250.00 ml/min
1/25/2023 2:25 PM	15:00	5.82 pH	20.41 °C	293.45 µS/cm	0.21 mg/L	3.33 NTU	89.9 mV	11.00 ft	250.00 ml/min
1/25/2023 2:30 PM	20:00	5.82 pH	20.44 °C	291.89 µS/cm	0.20 mg/L	2.09 NTU	86.0 mV	11.00 ft	250.00 ml/min
1/25/2023 2:35 PM	25:00	5.82 pH	20.44 °C	290.46 µS/cm	0.20 mg/L	1.63 NTU	83.1 mV	11.00 ft	250.00 ml/min
1/25/2023 2:40 PM	30:00	5.82 pH	20.48 °C	288.62 µS/cm	0.20 mg/L	1.27 NTU	103.7 mV	11.00 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 12:15:07 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Dever Johnson

<b>Location Name: BRGWC-47</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 82 ft</b> <b>Total Depth: 92 ft</b> <b>Initial Depth to Water: 28.63 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 87 ft</b> <b>Estimated Total Volume Pumped: 11.66 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 8.28 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843285</b>
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## Test Notes:

Sunny. Sampled at 1333.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/26/2023 12:15 PM	00:00	5.82 pH	18.82 °C	1,720.6 µS/cm	0.84 mg/L	3.90 NTU	-24.2 mV	28.63 ft	150.00 ml/min
1/26/2023 12:20 PM	05:00	5.71 pH	18.32 °C	1,647.3 µS/cm	0.40 mg/L	3.86 NTU	37.4 mV	29.32 ft	150.00 ml/min
1/26/2023 12:25 PM	10:00	5.69 pH	18.39 °C	1,639.7 µS/cm	0.30 mg/L	2.47 NTU	60.6 mV	29.32 ft	150.00 ml/min
1/26/2023 12:30 PM	15:00	5.69 pH	18.28 °C	1,641.1 µS/cm	0.26 mg/L	1.31 NTU	71.7 mV	29.32 ft	150.00 ml/min
1/26/2023 12:35 PM	20:00	5.69 pH	18.15 °C	1,650.3 µS/cm	0.24 mg/L	1.11 NTU	72.4 mV	29.32 ft	150.00 ml/min
1/26/2023 12:40 PM	25:00	5.68 pH	18.11 °C	1,635.8 µS/cm	0.25 mg/L	0.79 NTU	80.4 mV	29.32 ft	150.00 ml/min
1/26/2023 12:42 PM	27:44	5.67 pH	18.02 °C	1,659.3 µS/cm	0.26 mg/L	0.75 NTU	80.6 mV	29.32 ft	150.00 ml/min
1/26/2023 12:47 PM	32:44	5.67 pH	18.21 °C	1,657.0 µS/cm	0.28 mg/L	0.49 NTU	84.4 mV	29.32 ft	150.00 ml/min
1/26/2023 12:52 PM	37:44	5.66 pH	18.11 °C	1,655.2 µS/cm	0.28 mg/L	0.38 NTU	81.0 mV	29.32 ft	150.00 ml/min
1/26/2023 12:57 PM	42:44	5.66 pH	18.37 °C	1,653.2 µS/cm	0.29 mg/L	0.46 NTU	82.7 mV	29.32 ft	150.00 ml/min
1/26/2023 1:02 PM	47:44	5.66 pH	18.25 °C	1,650.3 µS/cm	0.28 mg/L	0.44 NTU	83.8 mV	29.32 ft	150.00 ml/min
1/26/2023 1:07 PM	52:44	5.66 pH	18.24 °C	1,656.2 µS/cm	0.29 mg/L	0.42 NTU	84.2 mV	29.32 ft	150.00 ml/min
1/26/2023 1:12 PM	57:44	5.66 pH	18.27 °C	1,654.4 µS/cm	0.31 mg/L	0.50 NTU	85.3 mV	29.32 ft	150.00 ml/min
1/26/2023 1:17 PM	01:02:44	5.66 pH	17.93 °C	1,654.7 µS/cm	0.30 mg/L	0.45 NTU	86.5 mV	29.32 ft	150.00 ml/min
1/26/2023 1:22 PM	01:07:44	5.66 pH	17.70 °C	1,657.0 µS/cm	0.30 mg/L	0.47 NTU	86.4 mV	29.32 ft	150.00 ml/min

1/26/2023 1:27 PM	01:12:44	5.65 pH	17.97 °C	1,663.7 μS/cm	0.30 mg/L	0.42 NTU	86.4 mV	29.32 ft	150.00 ml/min
1/26/2023 1:32 PM	01:17:44	5.65 pH	18.20 °C	1,665.0 μS/cm	0.30 mg/L	0.50 NTU	86.5 mV	29.32 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/25/2023 12:40:38 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: BRGWC-50</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 55 ft</b> <b>Total Depth: 65 ft</b> <b>Initial Depth to Water: 38.09 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 60 ft</b> <b>Estimated Total Volume Pumped: 11.25 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 1.32 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Cloudy, sampled at 1325, BRA-APBCD-FB-01 here at 1305

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/25/2023 12:40 PM	00:00	5.35 pH	18.61 °C	2,099.8 µS/cm	6.40 mg/L	3.89 NTU	299.2 mV	38.09 ft	250.00 ml/min
1/25/2023 12:45 PM	05:00	5.21 pH	19.54 °C	2,052.6 µS/cm	1.42 mg/L	2.59 NTU	193.4 mV	38.10 ft	250.00 ml/min
1/25/2023 12:50 PM	10:00	5.21 pH	19.86 °C	2,051.6 µS/cm	1.11 mg/L	2.41 NTU	168.5 mV	38.20 ft	250.00 ml/min
1/25/2023 12:55 PM	15:00	5.20 pH	19.95 °C	2,054.0 µS/cm	0.63 mg/L	2.22 NTU	206.0 mV	38.20 ft	250.00 ml/min
1/25/2023 1:00 PM	20:00	5.20 pH	20.02 °C	2,056.3 µS/cm	0.38 mg/L	1.82 NTU	153.1 mV	38.20 ft	250.00 ml/min
1/25/2023 1:05 PM	25:00	5.20 pH	20.10 °C	2,054.2 µS/cm	0.34 mg/L	1.49 NTU	146.5 mV	38.20 ft	250.00 ml/min
1/25/2023 1:10 PM	30:00	5.20 pH	20.10 °C	2,055.8 µS/cm	0.33 mg/L	1.27 NTU	144.5 mV	38.20 ft	250.00 ml/min
1/25/2023 1:15 PM	35:00	5.20 pH	20.16 °C	2,058.1 µS/cm	0.31 mg/L	0.73 NTU	141.2 mV	38.20 ft	250.00 ml/min
1/25/2023 1:20 PM	40:00	5.19 pH	20.12 °C	2,062.7 µS/cm	0.28 mg/L	0.58 NTU	139.3 mV	38.20 ft	250.00 ml/min
1/25/2023 1:25 PM	45:00	5.18 pH	20.09 °C	2,066.1 µS/cm	0.28 mg/L	0.62 NTU	137.0 mV	38.20 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/25/2023 2:20:06 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: BRGWC-52I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 63.9 ft</b> <b>Total Depth: 73.9 ft</b> <b>Initial Depth to Water: 39.57 ft</b>	<b>Pump Type: Dedicated Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 68 ft</b> <b>Estimated Total Volume Pumped: 12.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 7.56 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Rain, sampled at 1510, Fe2+=1.0 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/25/2023 2:20 PM	00:00	6.70 pH	18.78 °C	474.63 µS/cm	1.23 mg/L	5.98 NTU	18.6 mV	39.57 ft	250.00 ml/min
1/25/2023 2:25 PM	05:00	6.88 pH	18.78 °C	467.68 µS/cm	0.58 mg/L	3.13 NTU	-8.6 mV	40.10 ft	250.00 ml/min
1/25/2023 2:30 PM	10:00	7.08 pH	18.75 °C	427.39 µS/cm	0.36 mg/L	1.71 NTU	-25.9 mV	40.20 ft	250.00 ml/min
1/25/2023 2:35 PM	15:00	7.07 pH	18.74 °C	411.31 µS/cm	0.33 mg/L	2.89 NTU	-36.7 mV	40.20 ft	250.00 ml/min
1/25/2023 2:40 PM	20:00	6.87 pH	18.75 °C	407.94 µS/cm	0.32 mg/L	1.09 NTU	-26.5 mV	40.20 ft	250.00 ml/min
1/25/2023 2:45 PM	25:00	6.71 pH	18.77 °C	408.90 µS/cm	0.31 mg/L	0.97 NTU	-8.8 mV	40.20 ft	250.00 ml/min
1/25/2023 2:50 PM	30:00	6.57 pH	18.78 °C	411.49 µS/cm	0.31 mg/L	0.90 NTU	-1.4 mV	40.20 ft	250.00 ml/min
1/25/2023 2:55 PM	35:00	6.45 pH	18.79 °C	413.14 µS/cm	0.31 mg/L	0.77 NTU	4.5 mV	40.20 ft	250.00 ml/min
1/25/2023 3:00 PM	40:00	6.33 pH	18.78 °C	413.49 µS/cm	0.31 mg/L	0.67 NTU	9.4 mV	40.20 ft	250.00 ml/min
1/25/2023 3:05 PM	45:00	6.28 pH	18.75 °C	413.33 µS/cm	0.30 mg/L	0.82 NTU	12.6 mV	40.20 ft	250.00 ml/min
1/25/2023 3:10 PM	50:00	6.25 pH	18.78 °C	413.13 µS/cm	0.30 mg/L	0.55 NTU	14.9 mV	40.20 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/25/2023 12:55:21 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-44</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 49.58 ft</b> <b>Total Depth: 59.58 ft</b> <b>Initial Depth to Water: 27.35 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 54 ft</b> <b>Estimated Total Volume Pumped: 7.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Cloudy, sample time-1325. Fe2+=0.0 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/25/2023 12:55 PM	00:00	7.68 pH	20.51 °C	8.17 µS/cm	8.92 mg/L	5.77 NTU	258.6 mV	27.35 ft	250.00 ml/min
1/25/2023 1:00 PM	05:00	6.08 pH	20.35 °C	189.98 µS/cm	0.34 mg/L	4.22 NTU	111.0 mV	27.60 ft	250.00 ml/min
1/25/2023 1:05 PM	10:00	6.09 pH	20.46 °C	189.17 µS/cm	0.22 mg/L	4.76 NTU	124.9 mV	27.70 ft	250.00 ml/min
1/25/2023 1:10 PM	15:00	6.10 pH	20.53 °C	188.23 µS/cm	0.19 mg/L	3.72 NTU	91.9 mV	27.70 ft	250.00 ml/min
1/25/2023 1:15 PM	20:00	6.11 pH	20.50 °C	187.30 µS/cm	0.21 mg/L	1.30 NTU	87.7 mV	27.70 ft	250.00 ml/min
1/25/2023 1:20 PM	25:00	6.12 pH	20.51 °C	186.88 µS/cm	0.26 mg/L	1.48 NTU	83.9 mV	27.70 ft	250.00 ml/min
1/25/2023 1:25 PM	30:00	6.13 pH	20.42 °C	187.12 µS/cm	0.27 mg/L	1.43 NTU	81.2 mV	27.70 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/26/2023 3:15:09 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: PZ-50D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 99 ft</b> <b>Total Depth: 109 ft</b> <b>Initial Depth to Water: 36.78 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 104 ft</b> <b>Estimated Total Volume Pumped: 48.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 806.24 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sunny, purged dry no sample taken, BRA-APBCD-EB-05 at 1610

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/26/2023 3:15 PM	00:00	6.08 pH	17.14 °C	1,768.2 µS/cm	3.34 mg/L	2.64 NTU	37.1 mV	36.78 ft	300.00 ml/min
1/26/2023 3:20 PM	05:00	6.07 pH	18.75 °C	1,764.2 µS/cm	0.90 mg/L	3.38 NTU	35.2 mV	38.70 ft	300.00 ml/min
1/26/2023 3:25 PM	10:00	6.09 pH	18.70 °C	1,761.5 µS/cm	0.64 mg/L	1.98 NTU	25.2 mV	39.90 ft	300.00 ml/min
1/26/2023 3:30 PM	15:00	6.10 pH	18.91 °C	1,764.5 µS/cm	0.66 mg/L	2.08 NTU	16.0 mV	41.30 ft	300.00 ml/min
1/26/2023 3:35 PM	20:00	6.11 pH	19.01 °C	1,756.4 µS/cm	0.55 mg/L	2.29 NTU	9.6 mV	42.90 ft	300.00 ml/min
1/26/2023 3:40 PM	25:00	6.11 pH	18.92 °C	1,756.0 µS/cm	0.54 mg/L	2.14 NTU	5.2 mV	45.30 ft	300.00 ml/min
1/26/2023 3:45 PM	30:00	6.11 pH	18.98 °C	1,748.9 µS/cm	0.50 mg/L	2.91 NTU	2.7 mV	46.10 ft	300.00 ml/min
1/26/2023 3:50 PM	35:00	6.11 pH	18.91 °C	1,747.4 µS/cm	0.47 mg/L	2.05 NTU	0.9 mV	47.70 ft	300.00 ml/min
1/26/2023 3:55 PM	40:00	6.11 pH	18.87 °C	1,743.5 µS/cm	0.45 mg/L	1.80 NTU	-0.3 mV	49.90 ft	300.00 ml/min
1/26/2023 4:00 PM	45:00	6.11 pH	18.80 °C	1,745.2 µS/cm	0.46 mg/L	2.09 NTU	-1.7 mV	51.00 ft	300.00 ml/min
1/26/2023 4:05 PM	50:00	6.11 pH	18.84 °C	1,734.3 µS/cm	0.45 mg/L	2.33 NTU	-2.8 mV	53.30 ft	300.00 ml/min
1/26/2023 4:10 PM	55:00	6.11 pH	18.78 °C	1,738.9 µS/cm	0.45 mg/L	2.12 NTU	-3.2 mV	55.00 ft	300.00 ml/min
1/26/2023 4:15 PM	01:00:00	6.11 pH	18.61 °C	1,736.6 µS/cm	0.45 mg/L	2.21 NTU	-4.3 mV	55.90 ft	300.00 ml/min
1/26/2023 4:20 PM	01:05:00	6.12 pH	19.09 °C	1,735.2 µS/cm	0.48 mg/L	2.62 NTU	-5.5 mV	57.60 ft	300.00 ml/min
1/26/2023 4:25 PM	01:10:00	6.12 pH	19.10 °C	1,728.3 µS/cm	0.47 mg/L	3.17 NTU	-6.1 mV	60.20 ft	300.00 ml/min

1/26/2023 4:30 PM	01:15:00	6.12 pH	19.14 °C	1,728.3 µS/cm	0.50 mg/L	4.25 NTU	-6.2 mV	62.70 ft	300.00 ml/min
1/26/2023 4:35 PM	01:20:00	6.06 pH	19.15 °C	1,724.1 µS/cm	0.55 mg/L	2.79 NTU	-21.7 mV	62.70 ft	300.00 ml/min
1/26/2023 4:40 PM	01:25:00	6.11 pH	19.06 °C	1,724.7 µS/cm	0.62 mg/L	4.32 NTU	-5.9 mV	67.10 ft	300.00 ml/min
1/26/2023 4:45 PM	01:30:00	6.11 pH	19.06 °C	1,729.4 µS/cm	0.62 mg/L	3.36 NTU	-5.3 mV	69.00 ft	300.00 ml/min
1/26/2023 4:50 PM	01:35:00	6.11 pH	19.00 °C	1,728.5 µS/cm	0.62 mg/L	2.83 NTU	-4.8 mV	71.80 ft	300.00 ml/min
1/26/2023 4:55 PM	01:40:00	6.12 pH	19.00 °C	1,728.4 µS/cm	0.75 mg/L	4.14 NTU	-3.3 mV	74.00 ft	300.00 ml/min
1/26/2023 5:00 PM	01:45:00	6.12 pH	18.92 °C	1,726.1 µS/cm	0.94 mg/L	4.31 NTU	-1.0 mV	75.80 ft	300.00 ml/min
1/26/2023 5:05 PM	01:50:00	6.12 pH	18.92 °C	1,723.2 µS/cm	1.05 mg/L	5.84 NTU	1.6 mV	78.80 ft	300.00 ml/min
1/26/2023 5:10 PM	01:55:00	6.12 pH	18.95 °C	1,723.0 µS/cm	1.07 mg/L	6.03 NTU	4.6 mV	78.80 ft	300.00 ml/min
1/26/2023 5:15 PM	02:00:00	6.13 pH	18.95 °C	1,725.3 µS/cm	1.11 mg/L	8.04 NTU	7.9 mV	82.40 ft	300.00 ml/min
1/26/2023 5:20 PM	02:05:00	6.14 pH	18.96 °C	1,720.4 µS/cm	1.26 mg/L	8.92 NTU	11.5 mV	82.90 ft	50.00 ml/min
1/26/2023 5:25 PM	02:10:00	6.15 pH	18.98 °C	1,719.3 µS/cm	1.61 mg/L	9.68 NTU	15.7 mV	83.30 ft	50.00 ml/min
1/26/2023 5:30 PM	02:15:00	6.16 pH	18.79 °C	1,717.1 µS/cm	1.83 mg/L	11.80 NTU	19.7 mV	83.80 ft	50.00 ml/min
1/26/2023 5:35 PM	02:20:00	6.16 pH	18.61 °C	1,718.4 µS/cm	1.95 mg/L	12.20 NTU	22.7 mV	85.80 ft	300.00 ml/min
1/26/2023 5:40 PM	02:25:00	6.18 pH	18.75 °C	1,719.3 µS/cm	2.10 mg/L	13.80 NTU	24.4 mV	88.10 ft	300.00 ml/min
1/26/2023 5:45 PM	02:30:00	6.18 pH	18.70 °C	1,715.8 µS/cm	2.27 mg/L	14.60 NTU	26.0 mV	90.50 ft	300.00 ml/min
1/26/2023 5:50 PM	02:35:00	6.19 pH	18.66 °C	1,719.7 µS/cm	2.44 mg/L	28.30 NTU	18.7 mV	93.50 ft	300.00 ml/min
1/26/2023 5:55 PM	02:40:00	6.19 pH	18.53 °C	1,723.1 µS/cm	2.59 mg/L	24.20 NTU	27.3 mV	96.30 ft	300.00 ml/min
1/26/2023 6:00 PM	02:45:00	6.20 pH	18.46 °C	1,723.5 µS/cm	2.71 mg/L	20.90 NTU	19.3 mV	98.80 ft	300.00 ml/min
1/26/2023 6:05 PM	02:50:00	6.18 pH	18.39 °C	1,748.8 µS/cm	2.17 mg/L	18.20 NTU	26.6 mV	101.10 ft	300.00 ml/min
1/26/2023 6:10 PM	02:55:00	6.15 pH	18.34 °C	1,780.4 µS/cm	0.71 mg/L	12.40 NTU	14.0 mV	104.00 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/27/2023 8:25:05 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Toby Johnson

<b>Location Name:</b> PZ-50D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 99 ft <b>Total Depth:</b> 109 ft <b>Initial Depth to Water:</b> 76.08 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 104 ft <b>Estimated Total Volume Pumped:</b> 1.875 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 125 ml/min <b>Final Draw Down:</b> 25.44 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965658
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## Test Notes:

Sunny, sampled at 0840, Fe2+=4.5 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/27/2023 8:25 AM	00:00	6.03 pH	10.45 °C	1,843.2 µS/cm	8.43 mg/L	17.10 NTU	89.2 mV	76.08 ft	125.00 ml/min
1/27/2023 8:30 AM	05:00	6.20 pH	14.49 °C	1,538.4 µS/cm	2.59 mg/L	6.37 NTU	38.8 mV	77.00 ft	125.00 ml/min
1/27/2023 8:35 AM	10:00	6.23 pH	15.03 °C	1,456.1 µS/cm	0.82 mg/L	4.96 NTU	16.8 mV	77.70 ft	125.00 ml/min
1/27/2023 8:40 AM	15:00	6.24 pH	15.16 °C	1,446.5 µS/cm	0.65 mg/L	4.76 NTU	12.3 mV	78.20 ft	125.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/26/2023 9:15:11 AM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: PZ-51D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 96 ft</b> <b>Total Depth: 106 ft</b> <b>Initial Depth to Water: 38.04 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 101 ft</b> <b>Estimated Total Volume Pumped: 3.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 10.32 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sunny, sampled at 0950, Fe2+=1.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/26/2023 9:15 AM	00:00	7.07 pH	13.85 °C	918.32 µS/cm	2.85 mg/L	2.18 NTU	56.4 mV	38.04 ft	100.00 ml/min
1/26/2023 9:20 AM	05:00	7.02 pH	16.04 °C	913.41 µS/cm	1.37 mg/L	3.35 NTU	-12.4 mV	38.30 ft	100.00 ml/min
1/26/2023 9:25 AM	10:00	7.09 pH	16.51 °C	915.54 µS/cm	1.18 mg/L	3.22 NTU	-23.7 mV	38.60 ft	100.00 ml/min
1/26/2023 9:30 AM	15:00	7.14 pH	16.51 °C	913.19 µS/cm	1.20 mg/L	2.99 NTU	-35.4 mV	38.80 ft	100.00 ml/min
1/26/2023 9:35 AM	20:00	7.17 pH	16.67 °C	914.04 µS/cm	0.78 mg/L	2.32 NTU	-43.0 mV	38.90 ft	100.00 ml/min
1/26/2023 9:40 AM	25:00	7.18 pH	16.88 °C	912.32 µS/cm	0.77 mg/L	2.38 NTU	-72.4 mV	38.90 ft	100.00 ml/min
1/26/2023 9:45 AM	30:00	7.19 pH	17.13 °C	917.23 µS/cm	0.76 mg/L	2.65 NTU	-55.0 mV	38.90 ft	100.00 ml/min
1/26/2023 9:50 AM	35:00	7.20 pH	17.14 °C	914.92 µS/cm	0.66 mg/L	2.43 NTU	-83.8 mV	38.90 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 11:30:20 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Toby Johnson

<b>Location Name:</b> PZ-511 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 55 ft <b>Total Depth:</b> 65 ft <b>Initial Depth to Water:</b> 38.41 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 60 ft <b>Estimated Total Volume Pumped:</b> 4.5 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 4.68 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965658
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## Test Notes:

Cloudy, sampled at 1200, Fe2+=0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/26/2023 11:30 AM	00:00	6.36 pH	21.40 °C	1,536.5 µS/cm	3.77 mg/L	5.04 NTU	14.9 mV	38.41 ft	150.00 ml/min
1/26/2023 11:35 AM	05:00	5.55 pH	18.46 °C	1,820.5 µS/cm	0.43 mg/L	3.43 NTU	49.3 mV	38.70 ft	150.00 ml/min
1/26/2023 11:40 AM	10:00	5.49 pH	18.36 °C	1,835.5 µS/cm	0.29 mg/L	2.93 NTU	49.8 mV	38.80 ft	150.00 ml/min
1/26/2023 11:45 AM	15:00	5.47 pH	18.43 °C	1,833.2 µS/cm	0.24 mg/L	1.80 NTU	41.3 mV	38.80 ft	150.00 ml/min
1/26/2023 11:50 AM	20:00	5.46 pH	18.48 °C	1,835.2 µS/cm	0.21 mg/L	2.34 NTU	39.7 mV	38.80 ft	150.00 ml/min
1/26/2023 11:55 AM	25:00	5.45 pH	18.34 °C	1,833.3 µS/cm	0.20 mg/L	3.64 NTU	35.8 mV	38.80 ft	150.00 ml/min
1/26/2023 12:00 PM	30:00	5.44 pH	18.20 °C	1,831.4 µS/cm	0.18 mg/L	1.19 NTU	32.3 mV	38.80 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/30/2023 3:00:11 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: PZ-51S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 40.4 ft</b> <b>Total Depth: 45.4 ft</b> <b>Initial Depth to Water: 37.92 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 42 ft</b> <b>Estimated Total Volume Pumped: 3.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 125 ml/min</b> <b>Final Draw Down: 15.36 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Overcast, sampled at 1530, Fe2+=0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/30/2023 3:00 PM	00:00	6.18 pH	18.02 °C	153.38 µS/cm	0.97 mg/L	6.43 NTU	71.8 mV	37.92 ft	125.00 ml/min
1/30/2023 3:05 PM	05:00	6.18 pH	18.17 °C	146.85 µS/cm	0.62 mg/L	4.82 NTU	70.4 mV	38.80 ft	125.00 ml/min
1/30/2023 3:10 PM	10:00	6.18 pH	18.43 °C	146.97 µS/cm	0.54 mg/L	4.20 NTU	69.7 mV	39.00 ft	125.00 ml/min
1/30/2023 3:15 PM	15:00	6.18 pH	18.64 °C	146.95 µS/cm	0.44 mg/L	3.93 NTU	69.2 mV	39.10 ft	125.00 ml/min
1/30/2023 3:20 PM	20:00	6.18 pH	18.56 °C	147.07 µS/cm	0.45 mg/L	3.47 NTU	69.2 mV	39.10 ft	125.00 ml/min
1/30/2023 3:25 PM	25:00	6.18 pH	18.56 °C	146.89 µS/cm	0.39 mg/L	3.76 NTU	68.8 mV	39.20 ft	125.00 ml/min
1/30/2023 3:30 PM	30:00	6.18 pH	18.54 °C	146.79 µS/cm	0.35 mg/L	3.20 NTU	68.7 mV	39.20 ft	125.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/30/2023 1:40:04 PM

Project: Plant Branch Ash Ponds

Operator Name: Dever Johnson

<b>Location Name: PZ-571</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 65.9 ft</b> <b>Total Depth: 75.9 ft</b> <b>Initial Depth to Water: 36.51 ft</b>	<b>Pump Type: Ded Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 31.51 ft</b> <b>Estimated Total Volume Pumped: 6.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 1.44 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 843285</b>
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## Test Notes:

Overcast, sampled at 1425

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 10	+/- 0.3	
1/30/2023 1:40 PM	00:00	5.77 pH	17.52 °C	551.15 µS/cm	1.94 mg/L	5.50 NTU	78.2 mV	36.51 ft	150.00 ml/min
1/30/2023 1:45 PM	05:00	5.48 pH	18.02 °C	654.99 µS/cm	0.84 mg/L	5.40 NTU	-44.1 mV	36.63 ft	150.00 ml/min
1/30/2023 1:50 PM	10:00	5.48 pH	17.88 °C	652.27 µS/cm	0.69 mg/L	2.30 NTU	-66.5 mV	36.63 ft	150.00 ml/min
1/30/2023 1:55 PM	15:00	5.48 pH	17.73 °C	655.36 µS/cm	0.51 mg/L	1.40 NTU	-76.9 mV	36.63 ft	150.00 ml/min
1/30/2023 2:00 PM	20:00	5.48 pH	17.73 °C	655.95 µS/cm	0.42 mg/L	2.00 NTU	-80.9 mV	36.63 ft	150.00 ml/min
1/30/2023 2:05 PM	25:00	5.48 pH	17.51 °C	661.93 µS/cm	0.40 mg/L	1.34 NTU	-106.7 mV	36.63 ft	150.00 ml/min
1/30/2023 2:10 PM	30:00	5.48 pH	17.70 °C	660.54 µS/cm	0.33 mg/L	1.25 NTU	-85.0 mV	36.63 ft	150.00 ml/min
1/30/2023 2:15 PM	35:00	5.48 pH	17.87 °C	659.15 µS/cm	0.31 mg/L	1.42 NTU	-85.4 mV	36.63 ft	150.00 ml/min
1/30/2023 2:20 PM	40:00	5.43 pH	17.96 °C	674.89 µS/cm	0.28 mg/L	1.39 NTU	-81.6 mV	36.63 ft	150.00 ml/min
1/30/2023 2:25 PM	45:00	5.39 pH	17.93 °C	692.31 µS/cm	0.25 mg/L	1.84 NTU	-75.9 mV	36.63 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/26/2023 2:15:06 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-58I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.9 ft</b> <b>Total Depth: 63.9 ft</b> <b>Initial Depth to Water: 38.58 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 11.2 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884186</b>
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## Test Notes:

Ferrous iron: 4.0 mg/L. Sample time 1500. Sunny 50s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/26/2023 2:15 PM	00:00	3.95 pH	19.41 °C	979.84 µS/cm	0.02 mg/L	1.21 NTU	207.5 mV	38.58 ft	250.00 ml/min
1/26/2023 2:20 PM	05:00	3.94 pH	19.26 °C	985.98 µS/cm	-0.01 mg/L	1.12 NTU	198.3 mV	38.60 ft	250.00 ml/min
1/26/2023 2:25 PM	10:00	3.93 pH	19.07 °C	991.44 µS/cm	-0.03 mg/L	3.90 NTU	210.3 mV	38.60 ft	250.00 ml/min
1/26/2023 2:30 PM	15:00	3.93 pH	19.14 °C	993.36 µS/cm	-0.03 mg/L	5.67 NTU	207.7 mV	38.60 ft	250.00 ml/min
1/26/2023 2:35 PM	20:00	3.93 pH	19.02 °C	999.54 µS/cm	-0.04 mg/L	5.00 NTU	187.0 mV	38.60 ft	250.00 ml/min
1/26/2023 2:40 PM	25:00	4.30 pH	19.15 °C	865.18 µS/cm	-0.04 mg/L	2.37 NTU	181.7 mV	38.60 ft	250.00 ml/min
1/26/2023 2:45 PM	30:00	4.36 pH	18.56 °C	852.24 µS/cm	0.08 mg/L	2.26 NTU	177.6 mV	38.60 ft	250.00 ml/min
1/26/2023 2:50 PM	35:00	3.98 pH	19.08 °C	966.04 µS/cm	-0.04 mg/L	2.98 NTU	192.6 mV	38.60 ft	250.00 ml/min
1/26/2023 2:55 PM	40:00	3.94 pH	19.02 °C	986.59 µS/cm	-0.04 mg/L	2.76 NTU	191.7 mV	38.60 ft	250.00 ml/min
1/26/2023 3:00 PM	45:00	3.93 pH	19.15 °C	998.46 µS/cm	-0.05 mg/L	2.87 NTU	172.4 mV	38.60 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 12:17:08 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Taylor Goble

<b>Location Name: PZ-59I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 56 ft</b> <b>Total Depth: 66 ft</b> <b>Initial Depth to Water: 40.01 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 61 ft</b> <b>Estimated Total Volume Pumped: 12000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.64 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 877800</b>
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## Test Notes:

Sampled at 1317. Cloudy 49 degrees. Ferrous iron 6.5 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
1/26/2023 12:17 PM	00:00	3.83 pH	16.83 °C	2,638.0 µS/cm	3.73 mg/L	32.70 NTU	37.5 mV	40.48 ft	200.00 ml/min
1/26/2023 12:22 PM	05:00	4.54 pH	18.89 °C	2,852.2 µS/cm	0.42 mg/L	12.60 NTU	-6.7 mV	40.65 ft	200.00 ml/min
1/26/2023 12:27 PM	10:00	4.47 pH	19.33 °C	3,006.0 µS/cm	0.45 mg/L	8.48 NTU	-15.6 mV	40.65 ft	200.00 ml/min
1/26/2023 12:32 PM	15:00	4.27 pH	19.37 °C	3,213.6 µS/cm	0.51 mg/L	7.78 NTU	-21.6 mV	40.65 ft	200.00 ml/min
1/26/2023 12:37 PM	20:00	3.89 pH	19.41 °C	3,593.7 µS/cm	0.61 mg/L	7.33 NTU	-5.5 mV	40.65 ft	200.00 ml/min
1/26/2023 12:42 PM	25:00	3.82 pH	19.53 °C	3,670.4 µS/cm	0.66 mg/L	6.33 NTU	-16.7 mV	40.65 ft	200.00 ml/min
1/26/2023 12:47 PM	30:00	3.80 pH	19.45 °C	3,672.3 µS/cm	0.74 mg/L	6.69 NTU	-20.8 mV	40.65 ft	200.00 ml/min
1/26/2023 12:52 PM	35:00	3.79 pH	19.70 °C	3,699.4 µS/cm	0.77 mg/L	7.26 NTU	-26.0 mV	40.65 ft	200.00 ml/min
1/26/2023 12:57 PM	40:00	3.79 pH	19.95 °C	3,701.5 µS/cm	0.83 mg/L	6.49 NTU	-28.8 mV	40.65 ft	200.00 ml/min
1/26/2023 1:02 PM	45:00	3.79 pH	19.77 °C	3,723.4 µS/cm	0.85 mg/L	6.27 NTU	-32.3 mV	40.65 ft	200.00 ml/min
1/26/2023 1:07 PM	50:00	3.78 pH	19.68 °C	3,723.3 µS/cm	0.89 mg/L	5.83 NTU	-26.5 mV	40.65 ft	200.00 ml/min
1/26/2023 1:12 PM	55:00	3.78 pH	19.71 °C	3,747.3 µS/cm	0.93 mg/L	5.51 NTU	-29.8 mV	40.65 ft	200.00 ml/min
1/26/2023 1:17 PM	01:00:00	3.78 pH	19.86 °C	3,752.5 µS/cm	0.98 mg/L	4.79 NTU	-27.9 mV	40.65 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/26/2023 2:35:11 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-60I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 54.15 ft <b>Total Depth:</b> 64.15 ft <b>Initial Depth to Water:</b> 38.35 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 59 ft <b>Estimated Total Volume Pumped:</b> 7.5 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 250 ml/min <b>Final Draw Down:</b> 2 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965678
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## Test Notes:

Sunny, sample time- 1505, fe2+= 0.5mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/26/2023 2:35 PM	00:00	5.13 pH	19.06 °C	1,755.5 µS/cm	5.97 mg/L	1.01 NTU	128.2 mV	38.35 ft	250.00 ml/min
1/26/2023 2:40 PM	05:00	5.23 pH	19.77 °C	1,843.7 µS/cm	0.29 mg/L	0.66 NTU	35.3 mV	38.50 ft	250.00 ml/min
1/26/2023 2:45 PM	10:00	5.07 pH	19.94 °C	1,860.0 µS/cm	0.21 mg/L	0.73 NTU	20.6 mV	38.50 ft	250.00 ml/min
1/26/2023 2:50 PM	15:00	4.68 pH	19.96 °C	1,966.3 µS/cm	0.17 mg/L	0.62 NTU	34.6 mV	38.50 ft	250.00 ml/min
1/26/2023 2:55 PM	20:00	4.63 pH	19.95 °C	1,982.9 µS/cm	0.14 mg/L	0.59 NTU	109.1 mV	38.50 ft	250.00 ml/min
1/26/2023 3:00 PM	25:00	4.61 pH	19.95 °C	1,983.5 µS/cm	0.12 mg/L	0.72 NTU	163.1 mV	38.50 ft	250.00 ml/min
1/26/2023 3:05 PM	30:00	4.60 pH	19.90 °C	1,980.7 µS/cm	0.11 mg/L	0.52 NTU	225.0 mV	38.50 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/26/2023 1:20:05 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: PZ-611</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 66 ft</b> <b>Total Depth: 76 ft</b> <b>Initial Depth to Water: 47.55 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 71 ft</b> <b>Estimated Total Volume Pumped: 8.375 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 175 ml/min</b> <b>Final Draw Down: 4.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Cloudy, sampled at 1410, Fe2+=0.5mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/26/2023 1:20 PM	00:00	5.53 pH	18.70 °C	1,914.0 µS/cm	1.65 mg/L	16.60 NTU	16.7 mV	47.55 ft	150.00 ml/min
1/26/2023 1:25 PM	05:00	5.43 pH	18.43 °C	2,071.5 µS/cm	0.36 mg/L	15.10 NTU	12.3 mV	47.90 ft	150.00 ml/min
1/26/2023 1:30 PM	10:00	5.38 pH	18.69 °C	2,077.9 µS/cm	0.27 mg/L	14.60 NTU	11.5 mV	47.90 ft	150.00 ml/min
1/26/2023 1:35 PM	15:00	5.30 pH	18.61 °C	2,088.8 µS/cm	0.25 mg/L	13.20 NTU	15.1 mV	47.90 ft	175.00 ml/min
1/26/2023 1:40 PM	20:00	5.25 pH	18.61 °C	2,103.4 µS/cm	0.22 mg/L	11.00 NTU	19.4 mV	47.90 ft	175.00 ml/min
1/26/2023 1:45 PM	25:00	5.22 pH	18.79 °C	2,123.4 µS/cm	0.20 mg/L	12.00 NTU	16.3 mV	47.90 ft	175.00 ml/min
1/26/2023 1:50 PM	30:00	5.20 pH	18.82 °C	2,136.8 µS/cm	0.17 mg/L	11.50 NTU	25.8 mV	47.90 ft	175.00 ml/min
1/26/2023 1:55 PM	35:00	5.18 pH	18.83 °C	2,150.1 µS/cm	0.16 mg/L	7.48 NTU	27.9 mV	47.90 ft	175.00 ml/min
1/26/2023 2:00 PM	40:00	5.18 pH	18.88 °C	2,158.5 µS/cm	0.15 mg/L	4.97 NTU	29.7 mV	47.90 ft	175.00 ml/min
1/26/2023 2:05 PM	45:00	5.17 pH	18.91 °C	2,172.1 µS/cm	0.14 mg/L	6.72 NTU	31.2 mV	47.90 ft	175.00 ml/min
1/26/2023 2:10 PM	50:00	5.16 pH	18.79 °C	2,178.2 µS/cm	0.14 mg/L	4.46 NTU	32.9 mV	47.90 ft	175.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/30/2023 12:35:04 PM

Project: Plant Branch Ash Ponds

Operator Name: Toby Johnson

<b>Location Name: PZ-62I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 62.68 ft</b> <b>Total Depth: 72.68 ft</b> <b>Initial Depth to Water: 39.1 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 67 ft</b> <b>Estimated Total Volume Pumped: 4.625 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 7.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Overcast, sampled at 1300, Fe2+=0.5mg/L, BRA-APBCD-FD-03 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
1/30/2023 12:35 PM	00:00	6.59 pH	16.02 °C	691.79 µS/cm	9.01 mg/L	7.61 NTU	86.6 mV	39.10 ft	175.00 ml/min
1/30/2023 12:40 PM	05:00	5.42 pH	17.81 °C	1,149.6 µS/cm	0.91 mg/L	6.51 NTU	84.6 mV	39.50 ft	175.00 ml/min
1/30/2023 12:45 PM	10:00	5.37 pH	18.31 °C	1,166.6 µS/cm	0.49 mg/L	3.47 NTU	83.6 mV	39.50 ft	175.00 ml/min
1/30/2023 12:50 PM	15:00	5.36 pH	18.74 °C	1,167.3 µS/cm	0.33 mg/L	2.77 NTU	83.3 mV	39.70 ft	200.00 ml/min
1/30/2023 12:55 PM	20:00	5.38 pH	18.96 °C	1,167.3 µS/cm	0.26 mg/L	2.28 NTU	82.4 mV	39.70 ft	200.00 ml/min
1/30/2023 1:00 PM	25:00	5.38 pH	19.01 °C	1,169.6 µS/cm	0.23 mg/L	1.69 NTU	84.5 mV	39.70 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/30/2023 1:10:06 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-63I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 46.5 ft</b> <b>Total Depth: 56.5 ft</b> <b>Initial Depth to Water: 39.38 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 51 ft</b> <b>Estimated Total Volume Pumped: 7.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 10 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884186</b>
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## Test Notes:

Ferrous iron: 1.0 mg/L. Sample time 1340. Rainy 50s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
1/30/2023 1:10 PM	00:00	5.93 pH	18.50 °C	502.33 µS/cm	2.52 mg/L	3.86 NTU	-15.3 mV	39.38 ft	250.00 ml/min
1/30/2023 1:15 PM	05:00	5.76 pH	18.48 °C	517.48 µS/cm	1.52 mg/L	3.11 NTU	-1.4 mV	40.20 ft	250.00 ml/min
1/30/2023 1:20 PM	10:00	5.69 pH	18.66 °C	509.08 µS/cm	1.02 mg/L	3.27 NTU	-5.3 mV	40.20 ft	250.00 ml/min
1/30/2023 1:25 PM	15:00	5.67 pH	18.73 °C	514.54 µS/cm	0.25 mg/L	2.85 NTU	13.7 mV	40.20 ft	250.00 ml/min
1/30/2023 1:30 PM	20:00	5.66 pH	18.79 °C	509.25 µS/cm	0.18 mg/L	2.16 NTU	4.7 mV	40.20 ft	250.00 ml/min
1/30/2023 1:35 PM	25:00	5.66 pH	18.83 °C	508.00 µS/cm	0.15 mg/L	1.08 NTU	7.3 mV	40.20 ft	250.00 ml/min
1/30/2023 1:40 PM	30:00	5.66 pH	18.83 °C	506.93 µS/cm	0.13 mg/L	0.97 NTU	20.0 mV	40.20 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/30/2023 3:10:04 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: PZ-64I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 61.58 ft</b> <b>Total Depth: 71.58 ft</b> <b>Initial Depth to Water: 38.63 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 65 ft</b> <b>Estimated Total Volume Pumped: 22 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 96.8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Cloudy, sample time-1700, fe2+=0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/30/2023 3:10 PM	00:00	5.31 pH	19.08 °C	2,510.4 µS/cm	0.51 mg/L	147.00 NTU	28.9 mV	38.63 ft	200.00 ml/min
1/30/2023 3:15 PM	05:00	5.32 pH	19.46 °C	2,511.6 µS/cm	0.32 mg/L	123.00 NTU	37.2 mV	39.70 ft	200.00 ml/min
1/30/2023 3:20 PM	10:00	5.37 pH	19.41 °C	2,511.8 µS/cm	0.26 mg/L	52.00 NTU	41.4 mV	41.70 ft	200.00 ml/min
1/30/2023 3:25 PM	15:00	5.39 pH	19.41 °C	2,512.2 µS/cm	0.23 mg/L	45.00 NTU	44.6 mV	42.20 ft	200.00 ml/min
1/30/2023 3:30 PM	20:00	5.40 pH	19.37 °C	2,511.5 µS/cm	0.21 mg/L	32.00 NTU	47.1 mV	43.40 ft	200.00 ml/min
1/30/2023 3:35 PM	25:00	5.39 pH	19.35 °C	2,513.9 µS/cm	0.20 mg/L	27.00 NTU	49.2 mV	43.80 ft	200.00 ml/min
1/30/2023 3:40 PM	30:00	5.38 pH	19.37 °C	2,512.4 µS/cm	0.18 mg/L	16.00 NTU	50.9 mV	44.20 ft	200.00 ml/min
1/30/2023 3:45 PM	35:00	5.37 pH	19.33 °C	2,510.1 µS/cm	0.17 mg/L	15.00 NTU	51.0 mV	44.80 ft	200.00 ml/min
1/30/2023 3:50 PM	40:00	5.36 pH	19.24 °C	2,508.5 µS/cm	0.16 mg/L	13.00 NTU	51.6 mV	45.10 ft	200.00 ml/min
1/30/2023 3:55 PM	45:00	5.35 pH	19.24 °C	2,513.1 µS/cm	0.15 mg/L	13.00 NTU	51.8 mV	45.40 ft	200.00 ml/min
1/30/2023 4:00 PM	50:00	5.35 pH	19.28 °C	2,515.3 µS/cm	0.15 mg/L	11.00 NTU	52.1 mV	45.60 ft	200.00 ml/min
1/30/2023 4:05 PM	55:00	5.34 pH	19.23 °C	2,503.8 µS/cm	0.15 mg/L	9.64 NTU	52.7 mV	45.70 ft	200.00 ml/min
1/30/2023 4:10 PM	01:00:00	5.33 pH	19.09 °C	2,510.6 µS/cm	0.14 mg/L	8.93 NTU	52.7 mV	45.70 ft	200.00 ml/min
1/30/2023 4:15 PM	01:05:00	5.33 pH	19.14 °C	2,509.0 µS/cm	0.14 mg/L	9.02 NTU	52.8 mV	45.70 ft	200.00 ml/min
1/30/2023 4:20 PM	01:10:00	5.32 pH	19.10 °C	2,510.3 µS/cm	0.13 mg/L	8.73 NTU	53.0 mV	45.70 ft	200.00 ml/min

1/30/2023 4:25 PM	01:15:00	5.32 pH	19.06 °C	2,516.0 µS/cm	0.17 mg/L	7.24 NTU	56.0 mV	45.70 ft	200.00 ml/min
1/30/2023 4:30 PM	01:20:00	5.33 pH	19.14 °C	2,509.7 µS/cm	0.12 mg/L	6.89 NTU	55.3 mV	45.70 ft	200.00 ml/min
1/30/2023 4:35 PM	01:25:00	5.33 pH	19.15 °C	2,510.6 µS/cm	0.12 mg/L	6.63 NTU	54.9 mV	45.70 ft	200.00 ml/min
1/30/2023 4:40 PM	01:30:00	5.32 pH	19.24 °C	2,509.7 µS/cm	0.11 mg/L	5.99 NTU	54.8 mV	45.70 ft	200.00 ml/min
1/30/2023 4:45 PM	01:35:00	5.33 pH	19.26 °C	2,509.0 µS/cm	0.11 mg/L	5.83 NTU	54.8 mV	45.70 ft	200.00 ml/min
1/30/2023 4:50 PM	01:40:00	5.32 pH	19.15 °C	2,505.7 µS/cm	0.11 mg/L	5.74 NTU	54.9 mV	45.70 ft	200.00 ml/min
1/30/2023 4:55 PM	01:45:00	5.32 pH	19.16 °C	2,504.4 µS/cm	0.11 mg/L	5.32 NTU	55.0 mV	45.70 ft	200.00 ml/min
1/30/2023 5:00 PM	01:50:00	5.33 pH	19.15 °C	2,505.9 µS/cm	0.11 mg/L	4.83 NTU	54.8 mV	45.70 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/26/2023 4:05:14 PM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-65I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 62.26 ft</b> <b>Total Depth: 72.26 ft</b> <b>Initial Depth to Water: 36.4 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 67 ft</b> <b>Estimated Total Volume Pumped: 5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 125 ml/min</b> <b>Final Draw Down: 10.68 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Sunny, sample time- 1645

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/26/2023 4:05 PM	00:00	4.45 pH	21.06 °C	0.80 µS/cm	8.87 mg/L	9.10 NTU	189.0 mV	36.40 ft	125.00 ml/min
1/26/2023 4:10 PM	05:00	3.87 pH	18.18 °C	2,258.4 µS/cm	1.00 mg/L	7.00 NTU	239.3 mV	36.40 ft	125.00 ml/min
1/26/2023 4:15 PM	10:00	4.07 pH	18.63 °C	2,257.8 µS/cm	0.43 mg/L	6.99 NTU	192.5 mV	37.29 ft	125.00 ml/min
1/26/2023 4:20 PM	15:00	4.10 pH	18.75 °C	2,268.6 µS/cm	0.34 mg/L	5.86 NTU	142.6 mV	37.29 ft	125.00 ml/min
1/26/2023 4:25 PM	20:00	4.10 pH	18.79 °C	2,263.9 µS/cm	0.28 mg/L	5.14 NTU	122.3 mV	37.29 ft	125.00 ml/min
1/26/2023 4:30 PM	25:00	4.10 pH	18.84 °C	2,273.1 µS/cm	0.24 mg/L	4.17 NTU	107.3 mV	37.29 ft	125.00 ml/min
1/26/2023 4:35 PM	30:00	4.08 pH	18.88 °C	2,272.7 µS/cm	0.23 mg/L	3.90 NTU	96.1 mV	37.29 ft	125.00 ml/min
1/26/2023 4:40 PM	35:00	4.10 pH	18.79 °C	2,275.0 µS/cm	0.21 mg/L	3.71 NTU	88.5 mV	37.29 ft	125.00 ml/min
1/26/2023 4:45 PM	40:00	4.06 pH	18.80 °C	2,291.1 µS/cm	0.20 mg/L	3.69 NTU	91.2 mV	37.29 ft	125.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 1/30/2023 12:45:11 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name: PZ-66I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 60.86 ft</b> <b>Total Depth: 70.86 ft</b> <b>Initial Depth to Water: 36.05 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 65 ft</b> <b>Estimated Total Volume Pumped: 16.4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 32 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Cloudy, sample time-1420, FB-03 here at 1350 FE2+= 6.0 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
1/30/2023 12:45 PM	00:00	6.59 pH	17.37 °C	14.29 µS/cm	9.59 mg/L	291.00 NTU	275.2 mV	36.05 ft	125.00 ml/min
1/30/2023 12:50 PM	05:00	5.78 pH	17.41 °C	1,638.9 µS/cm	2.25 mg/L	240.00 NTU	41.3 mV	36.50 ft	125.00 ml/min
1/30/2023 12:55 PM	10:00	5.67 pH	18.97 °C	1,949.6 µS/cm	0.61 mg/L	107.00 NTU	38.7 mV	37.00 ft	125.00 ml/min
1/30/2023 1:00 PM	15:00	5.66 pH	19.30 °C	1,957.3 µS/cm	0.41 mg/L	68.00 NTU	33.9 mV	37.20 ft	125.00 ml/min
1/30/2023 1:05 PM	20:00	5.67 pH	19.31 °C	1,959.6 µS/cm	0.34 mg/L	47.00 NTU	28.4 mV	37.40 ft	125.00 ml/min
1/30/2023 1:10 PM	25:00	5.67 pH	19.37 °C	1,959.8 µS/cm	0.30 mg/L	40.00 NTU	21.7 mV	37.50 ft	125.00 ml/min
1/30/2023 1:15 PM	30:00	5.67 pH	19.50 °C	1,960.0 µS/cm	0.27 mg/L	36.00 NTU	18.2 mV	37.60 ft	125.00 ml/min
1/30/2023 1:20 PM	35:00	5.67 pH	19.53 °C	1,959.6 µS/cm	0.25 mg/L	32.00 NTU	11.9 mV	37.70 ft	200.00 ml/min
1/30/2023 1:25 PM	40:00	5.67 pH	19.80 °C	1,966.4 µS/cm	0.21 mg/L	24.00 NTU	7.8 mV	38.00 ft	200.00 ml/min
1/30/2023 1:30 PM	45:00	5.68 pH	19.99 °C	1,960.9 µS/cm	0.22 mg/L	22.00 NTU	4.5 mV	38.10 ft	200.00 ml/min
1/30/2023 1:35 PM	50:00	5.68 pH	20.24 °C	1,960.4 µS/cm	0.22 mg/L	17.00 NTU	5.6 mV	38.20 ft	200.00 ml/min
1/30/2023 1:40 PM	55:00	5.68 pH	20.22 °C	1,956.2 µS/cm	0.17 mg/L	15.00 NTU	0.5 mV	38.30 ft	200.00 ml/min
1/30/2023 1:45 PM	01:00:00	5.67 pH	20.25 °C	1,958.3 µS/cm	0.16 mg/L	14.00 NTU	3.5 mV	38.50 ft	200.00 ml/min
1/30/2023 1:50 PM	01:05:00	5.67 pH	20.30 °C	1,958.8 µS/cm	0.14 mg/L	12.00 NTU	-0.9 mV	38.60 ft	200.00 ml/min
1/30/2023 1:55 PM	01:10:00	5.66 pH	20.26 °C	1,959.5 µS/cm	0.13 mg/L	9.74 NTU	-1.2 mV	38.60 ft	200.00 ml/min

1/30/2023 2:00 PM	01:15:00	5.65 pH	20.17 °C	1,962.0 µS/cm	0.13 mg/L	8.21 NTU	3.3 mV	38.60 ft	200.00 ml/min
1/30/2023 2:05 PM	01:20:00	5.65 pH	20.30 °C	1,961.3 µS/cm	0.12 mg/L	7.30 NTU	3.8 mV	38.60 ft	200.00 ml/min
1/30/2023 2:10 PM	01:25:00	5.65 pH	20.10 °C	1,967.4 µS/cm	0.15 mg/L	6.13 NTU	13.4 mV	38.60 ft	200.00 ml/min
1/30/2023 2:15 PM	01:30:00	5.64 pH	20.27 °C	1,963.3 µS/cm	0.11 mg/L	5.40 NTU	7.7 mV	38.70 ft	200.00 ml/min
1/30/2023 2:20 PM	01:35:00	5.64 pH	20.26 °C	1,964.9 µS/cm	0.11 mg/L	3.92 NTU	10.4 mV	38.70 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2/1/2023 1:41:33 PM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Taylor Goble

<b>Location Name:</b> PZ-68D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 76.9 ft <b>Total Depth:</b> 86.9 ft <b>Initial Depth to Water:</b> 42.61 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 81 ft <b>Estimated Total Volume Pumped:</b> 8050 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 230 ml/min <b>Final Draw Down:</b> 0 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 877800
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## Test Notes:

Sampled at 1416. Cloudy 65 degrees. Ferrous iron: 0.0 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
2/1/2023 1:41 PM	00:00	6.74 pH	18.55 °C	792.56 µS/cm	2.82 mg/L	6.77 NTU	-40.7 mV	42.61 ft	230.00 ml/min
2/1/2023 1:46 PM	05:00	7.11 pH	18.43 °C	780.45 µS/cm	0.54 mg/L	5.66 NTU	-59.9 mV	42.61 ft	230.00 ml/min
2/1/2023 1:51 PM	10:00	7.18 pH	18.59 °C	778.28 µS/cm	0.28 mg/L	5.30 NTU	-86.0 mV	42.61 ft	230.00 ml/min
2/1/2023 1:56 PM	15:00	7.22 pH	18.70 °C	777.61 µS/cm	0.24 mg/L	5.04 NTU	-88.2 mV	42.61 ft	230.00 ml/min
2/1/2023 2:01 PM	20:00	7.24 pH	18.72 °C	778.12 µS/cm	0.33 mg/L	4.34 NTU	-61.4 mV	42.61 ft	230.00 ml/min
2/1/2023 2:06 PM	25:00	7.26 pH	18.71 °C	779.11 µS/cm	0.60 mg/L	4.10 NTU	-84.6 mV	42.61 ft	230.00 ml/min
2/1/2023 2:11 PM	30:00	7.28 pH	18.71 °C	779.10 µS/cm	0.53 mg/L	4.87 NTU	-85.8 mV	42.61 ft	230.00 ml/min
2/1/2023 2:16 PM	35:00	7.28 pH	18.75 °C	778.53 µS/cm	0.45 mg/L	4.71 NTU	-87.7 mV	42.61 ft	230.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2/1/2023 11:57:22 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Taylor Goble

<b>Location Name: PZ-69I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 31.52 ft</b> <b>Total Depth: 41.52 ft</b> <b>Initial Depth to Water: 23.18 ft</b>	<b>Pump Type: Portable Bladder Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 35 ft</b> <b>Estimated Total Volume Pumped: 10000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.18 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 877800</b>
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## Test Notes:

Sampled at 1247. Cloudy 67 degrees. Ferrous iron: 0.0 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 4	+/- 5 %	+/- 10 %	+/- 10	+/- 30	+/- 0.1	
2/1/2023 11:57 AM	00:00	7.53 pH	18.46 °C	642.39 µS/cm	5.11 mg/L	128.00 NTU	60.3 mV	23.31 ft	200.00 ml/min
2/1/2023 12:02 PM	05:00	6.53 pH	18.21 °C	642.28 µS/cm	5.67 mg/L	86.80 NTU	80.0 mV	23.36 ft	200.00 ml/min
2/1/2023 12:07 PM	10:00	6.37 pH	18.21 °C	638.85 µS/cm	6.16 mg/L	52.30 NTU	86.2 mV	23.36 ft	200.00 ml/min
2/1/2023 12:12 PM	15:00	6.29 pH	18.14 °C	640.16 µS/cm	6.26 mg/L	32.50 NTU	89.6 mV	23.36 ft	200.00 ml/min
2/1/2023 12:17 PM	20:00	6.25 pH	18.17 °C	639.61 µS/cm	6.34 mg/L	24.00 NTU	113.6 mV	23.36 ft	200.00 ml/min
2/1/2023 12:22 PM	25:00	6.23 pH	18.20 °C	640.19 µS/cm	6.29 mg/L	18.80 NTU	92.9 mV	23.36 ft	200.00 ml/min
2/1/2023 12:27 PM	30:00	6.22 pH	18.26 °C	640.88 µS/cm	6.23 mg/L	13.50 NTU	118.0 mV	23.36 ft	200.00 ml/min
2/1/2023 12:32 PM	35:00	6.28 pH	18.30 °C	638.40 µS/cm	7.14 mg/L	16.70 NTU	117.7 mV	23.36 ft	200.00 ml/min
2/1/2023 12:37 PM	40:00	6.23 pH	18.26 °C	639.98 µS/cm	6.35 mg/L	17.90 NTU	96.2 mV	23.36 ft	200.00 ml/min
2/1/2023 12:42 PM	45:00	6.20 pH	18.29 °C	640.63 µS/cm	6.10 mg/L	10.20 NTU	96.6 mV	23.36 ft	200.00 ml/min
2/1/2023 12:47 PM	50:00	6.18 pH	18.30 °C	641.03 µS/cm	6.05 mg/L	4.22 NTU	121.9 mV	23.36 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 3/16/2023 9:30:10 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Toby Johnson

<b>Location Name:</b> PZ-69I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 31.52 ft <b>Total Depth:</b> 41.52 ft <b>Initial Depth to Water:</b> 22.95 ft	<b>Pump Type:</b> Peri Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 36 ft <b>Estimated Total Volume Pumped:</b> 6.9 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 230 ml/min <b>Final Draw Down:</b> 1.8 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965658
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## Test Notes:

Sunny, sampled at 1000, Fe2+=0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/16/2023 9:30 AM	00:00	7.52 pH	11.53 °C	567.19 µS/cm	8.40 mg/L	3.43 NTU	116.3 mV	22.95 ft	230.00 ml/min
3/16/2023 9:35 AM	05:00	5.96 pH	16.14 °C	576.92 µS/cm	4.00 mg/L	1.05 NTU	108.2 mV	23.10 ft	230.00 ml/min
3/16/2023 9:40 AM	10:00	5.94 pH	17.27 °C	575.12 µS/cm	3.55 mg/L	1.58 NTU	105.6 mV	23.10 ft	230.00 ml/min
3/16/2023 9:45 AM	15:00	5.92 pH	17.26 °C	576.28 µS/cm	4.19 mg/L	1.47 NTU	106.1 mV	23.10 ft	230.00 ml/min
3/16/2023 9:50 AM	20:00	5.92 pH	17.55 °C	572.30 µS/cm	4.09 mg/L	0.84 NTU	109.4 mV	23.10 ft	230.00 ml/min
3/16/2023 9:55 AM	25:00	5.92 pH	17.77 °C	577.76 µS/cm	4.02 mg/L	0.62 NTU	107.1 mV	23.10 ft	230.00 ml/min
3/16/2023 10:00 AM	30:00	5.92 pH	18.07 °C	574.26 µS/cm	3.83 mg/L	0.45 NTU	107.6 mV	23.10 ft	230.00 ml/min

## Samples

Sample ID:	Description:
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## Plant Branch Surface Water Samples 02/1/2023

Sample ID	Total Depth (ft)	Sample Depth (ft)	Time	Temp(C)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance – (mS/cm)	Coordinates
LR-1 (surface)	46.3	Surface	1149	11.1	7.08	104.1	9.62	55.1	0.211	33.178603, -83.317692
LR-1 (mid)		23.15	1152	10.3	7.11	102.3	8.57	57.9	0.213	
LR-1 (bottom)		46.30	1157	10.0	7.09	103.8	8.67	60.5	0.222	
LR+8A (surface)	9.7	Surface	1222	11.5	7.17	106.7	10.92	37.7	0.221	33.188793, -83.298479
LR+9A (surface)	9.6	Surface	1225	11.5	7.20	106.7	10.15	36.4	0.220	33.190136, -83.297139
LR+8 (surface)	23.7	Surface	1130	11.1	7.17	100.6	9.86	51.4	0.210	33.187322, -83.296928
LR+8 (mid)		11.85	1135	10.7	7.16	101.4	8.74	50.5	0.217	
LR+8 (bottom)		23.70	1138	10.4	7.15	102.2	9.00	105.8	0.223	
LR+9 (surface)	51.2	Surface	1117	11.0	7.21	100.6	9.81	47.5	0.219	33.189500, -83.295199
LR+9 (mid)		25.60	1120	10.4	7.20	100.8	8.81	47.3	0.217	
LR+9 (bottom)		51.20	1124	10.3	7.19	102.5	9.09	46.5	0.221	
LR-10 (surface)	24.6	Surface	1055	10.8	7.18	103.9	10.20	45.0	0.206	33.188519, -83.284506
LR-10 (mid)		13.30	1058	10.8	7.24	100.1	8.71	46.2	0.207	
LR-10 (bottom)		24.60	1105	10.8	7.26	102.0	8.79	42.5	0.203	

# March-June 2023

# Low-Flow Test Report:

**Test Date / Time:** 3/16/2023 9:30:10 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Toby Johnson

<b>Location Name:</b> PZ-69I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 31.52 ft <b>Total Depth:</b> 41.52 ft <b>Initial Depth to Water:</b> 22.95 ft	<b>Pump Type:</b> Peri Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 36 ft <b>Estimated Total Volume Pumped:</b> 6.9 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 230 ml/min <b>Final Draw Down:</b> 1.8 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965658
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## Test Notes:

Sunny, sampled at 1000, Fe2+=0.0mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
3/16/2023 9:30 AM	00:00	7.52 pH	11.53 °C	567.19 µS/cm	8.40 mg/L	3.43 NTU	116.3 mV	22.95 ft	230.00 ml/min
3/16/2023 9:35 AM	05:00	5.96 pH	16.14 °C	576.92 µS/cm	4.00 mg/L	1.05 NTU	108.2 mV	23.10 ft	230.00 ml/min
3/16/2023 9:40 AM	10:00	5.94 pH	17.27 °C	575.12 µS/cm	3.55 mg/L	1.58 NTU	105.6 mV	23.10 ft	230.00 ml/min
3/16/2023 9:45 AM	15:00	5.92 pH	17.26 °C	576.28 µS/cm	4.19 mg/L	1.47 NTU	106.1 mV	23.10 ft	230.00 ml/min
3/16/2023 9:50 AM	20:00	5.92 pH	17.55 °C	572.30 µS/cm	4.09 mg/L	0.84 NTU	109.4 mV	23.10 ft	230.00 ml/min
3/16/2023 9:55 AM	25:00	5.92 pH	17.77 °C	577.76 µS/cm	4.02 mg/L	0.62 NTU	107.1 mV	23.10 ft	230.00 ml/min
3/16/2023 10:00 AM	30:00	5.92 pH	18.07 °C	574.26 µS/cm	3.83 mg/L	0.45 NTU	107.6 mV	23.10 ft	230.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 3/29/2023 3:05:05 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-18S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 14.2 ft</b> <b>Total Depth: 24.2 ft</b> <b>Initial Depth to Water: 20.13 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Tubing Inner Diameter: 0.17 in</b> <b>Tubing Length: 24 ft</b> <b>Pump Intake From TOC: 21 ft</b> <b>Estimated Total Volume Pumped: 58 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Pre-purged from 10:45-1505 at 200 ml/min. Pre-purge volume = 52L. Sample time 1535. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 5	
3/29/2023 3:05 PM	00:00	5.35 pH	19.20 °C	551.35 µS/cm	1.48 mg/L	0.77 NTU	82.2 mV	20.13 ft	200.00 ml/min
3/29/2023 3:10 PM	05:00	5.35 pH	19.17 °C	545.66 µS/cm	1.52 mg/L	0.60 NTU	82.2 mV	20.30 ft	200.00 ml/min
3/29/2023 3:15 PM	10:00	5.35 pH	19.26 °C	552.44 µS/cm	1.64 mg/L	0.87 NTU	82.2 mV	20.30 ft	200.00 ml/min
3/29/2023 3:20 PM	15:00	5.35 pH	19.44 °C	546.76 µS/cm	1.69 mg/L	0.61 NTU	82.2 mV	20.30 ft	200.00 ml/min
3/29/2023 3:25 PM	20:00	5.36 pH	19.34 °C	550.06 µS/cm	1.84 mg/L	0.43 NTU	82.0 mV	20.30 ft	200.00 ml/min
3/29/2023 3:30 PM	25:00	5.36 pH	19.25 °C	549.21 µS/cm	1.74 mg/L	0.31 NTU	82.0 mV	20.30 ft	200.00 ml/min
3/29/2023 3:35 PM	30:00	5.36 pH	19.19 °C	547.47 µS/cm	1.79 mg/L	0.26 NTU	82.2 mV	20.30 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 3/29/2023 4:15:20 PM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-19S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18 ft</b> <b>Total Depth: 28 ft</b> <b>Initial Depth to Water: 13.3 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Tubing Inner Diameter: 0.17 in</b> <b>Tubing Length: 28 ft</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 80 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Pre-purged well from 1125-1615 at 250ml/min. Pre-purged volume = 72.5L. Sample time 1645. Overcast 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 5	
3/29/2023 4:15 PM	00:00	5.55 pH	19.62 °C	484.86 µS/cm	0.55 mg/L	0.25 NTU	91.7 mV	13.30 ft	250.00 ml/min
3/29/2023 4:20 PM	05:00	5.54 pH	18.31 °C	495.91 µS/cm	0.53 mg/L	0.21 NTU	92.2 mV	13.40 ft	250.00 ml/min
3/29/2023 4:25 PM	10:00	5.54 pH	18.25 °C	494.99 µS/cm	0.53 mg/L	0.50 NTU	91.6 mV	13.40 ft	250.00 ml/min
3/29/2023 4:30 PM	15:00	5.53 pH	18.26 °C	494.41 µS/cm	0.54 mg/L	0.55 NTU	91.4 mV	13.40 ft	250.00 ml/min
3/29/2023 4:35 PM	20:00	5.54 pH	18.22 °C	494.07 µS/cm	0.59 mg/L	0.51 NTU	91.2 mV	13.40 ft	250.00 ml/min
3/29/2023 4:40 PM	25:00	5.54 pH	18.20 °C	493.68 µS/cm	0.57 mg/L	0.37 NTU	91.3 mV	13.40 ft	250.00 ml/min
3/29/2023 4:45 PM	30:00	5.54 pH	18.23 °C	492.96 µS/cm	0.64 mg/L	0.30 NTU	91.2 mV	13.40 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 5/11/2023 8:00:13 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** A. Schnittker

<b>Location Name:</b> PZ-71 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 33.94 ft <b>Total Depth:</b> 43.94 m <b>Initial Depth to Water:</b> 34.58 ft	<b>Pump Type:</b> Portable Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 41 ft <b>Estimated Total Volume Pumped:</b> 2.3 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 15 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965678
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**Test Notes:** Sample time 0815. Sunny  
60s. Clear, no color, no odor. Log 2 of 2.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
5/11/2023 8:00 AM	00:00	6.33 pH	22.95 °C	539.81 µS/cm	7.38 mg/L	2.66 NTU	146.8 mV	34.58 ft	150.00 ml/min
5/11/2023 8:05 AM	05:00	6.42 pH	19.50 °C	523.31 µS/cm	7.63 mg/L	2.32 NTU	104.9 mV	35.20 ft	150.00 ml/min
5/11/2023 8:10 AM	10:00	6.41 pH	19.24 °C	527.60 µS/cm	7.77 mg/L	3.00 NTU	101.2 mV	35.50 ft	150.00 ml/min
5/11/2023 8:15 AM	15:00	6.41 pH	19.26 °C	528.06 µS/cm	7.76 mg/L	2.94 NTU	99.5 mV	35.80 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 5/18/2023 8:05:07 AM

**Project:** Plant Branch Ash Ponds - BCD

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-711 <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 33.94 ft <b>Total Depth:</b> 43.94 ft <b>Initial Depth to Water:</b> 34.54 ft	<b>Pump Type:</b> Portable bladder pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 38 ft <b>Estimated Total Volume Pumped:</b> 1.5 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 100 ml/min <b>Final Draw Down:</b> 8 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965658
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## Test Notes:

Cloudy, sample time 0820

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
5/18/2023 8:05 AM	00:00	6.65 pH	20.34 °C	24.55 µS/cm	8.84 mg/L	2.52 NTU	248.2 mV	34.54 ft	100.00 ml/min
5/18/2023 8:10 AM	05:00	6.18 pH	19.68 °C	575.30 µS/cm	7.68 mg/L	2.79 NTU	124.1 mV	34.80 ft	100.00 ml/min
5/18/2023 8:15 AM	10:00	6.09 pH	19.50 °C	582.89 µS/cm	7.40 mg/L	2.40 NTU	119.1 mV	35.10 ft	100.00 ml/min
5/18/2023 8:20 AM	15:00	6.09 pH	19.51 °C	583.03 µS/cm	7.42 mg/L	2.21 NTU	118.3 mV	35.30 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 5/22/2023 9:51:25 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-72I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 26.85 ft <b>Total Depth:</b> 36.85 ft <b>Initial Depth to Water:</b> 25.41 ft	<b>Pump Type:</b> Peri Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 31 ft <b>Estimated Total Volume Pumped:</b> 4.5 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 2 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965658
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## Test Notes:

Light rain, sample time -1021

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
5/22/2023 9:51 AM	00:00	5.93 pH	17.92 °C	505.97 µS/cm	3.89 mg/L	6.18 NTU	119.3 mV	25.41 ft	150.00 ml/min
5/22/2023 9:56 AM	05:00	5.84 pH	17.81 °C	502.85 µS/cm	3.93 mg/L	5.08 NTU	115.6 mV	25.60 ft	150.00 ml/min
5/22/2023 10:01 AM	10:00	5.82 pH	17.84 °C	504.35 µS/cm	3.98 mg/L	6.44 NTU	114.1 mV	25.60 ft	150.00 ml/min
5/22/2023 10:06 AM	15:00	5.82 pH	17.79 °C	503.73 µS/cm	3.94 mg/L	5.84 NTU	113.2 mV	25.60 ft	150.00 ml/min
5/22/2023 10:11 AM	20:00	5.82 pH	17.76 °C	503.92 µS/cm	3.85 mg/L	5.65 NTU	112.9 mV	25.60 ft	150.00 ml/min
5/22/2023 10:16 AM	25:00	5.82 pH	17.74 °C	503.03 µS/cm	3.93 mg/L	3.60 NTU	112.4 mV	25.60 ft	150.00 ml/min
5/22/2023 10:21 AM	30:00	5.81 pH	17.81 °C	500.19 µS/cm	4.05 mg/L	2.31 NTU	112.1 mV	25.60 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 5/22/2023 10:45:16 AM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-73I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 18.69 ft</b> <b>Total Depth: 28.69 ft</b> <b>Initial Depth to Water: 7.34 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 23 ft</b> <b>Estimated Total Volume Pumped: 7.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Cloudy, sample time- 1115

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
5/22/2023 10:45 AM	00:00	6.43 pH	17.90 °C	1.29 µS/cm	9.39 mg/L	5.82 NTU	128.6 mV	7.34 ft	250.00 ml/min
5/22/2023 10:50 AM	05:00	5.66 pH	17.77 °C	551.25 µS/cm	0.33 mg/L	4.92 NTU	113.2 mV	7.60 ft	250.00 ml/min
5/22/2023 10:55 AM	10:00	5.64 pH	17.72 °C	552.67 µS/cm	0.24 mg/L	3.66 NTU	112.9 mV	7.80 ft	250.00 ml/min
5/22/2023 11:00 AM	15:00	5.65 pH	17.71 °C	552.55 µS/cm	0.21 mg/L	3.59 NTU	112.9 mV	7.80 ft	250.00 ml/min
5/22/2023 11:05 AM	20:00	5.64 pH	17.66 °C	551.90 µS/cm	0.19 mg/L	2.32 NTU	112.6 mV	7.80 ft	250.00 ml/min
5/22/2023 11:10 AM	25:00	5.64 pH	17.65 °C	552.01 µS/cm	0.18 mg/L	2.22 NTU	112.7 mV	7.80 ft	250.00 ml/min
5/22/2023 11:15 AM	30:00	5.64 pH	17.63 °C	552.28 µS/cm	0.21 mg/L	2.15 NTU	112.6 mV	7.80 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 5/31/2023 9:10:04 AM

Project: Plant Branch Ash Ponds

Operator Name: A. Schnittker

<b>Location Name: PZ-72I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 26.85 ft</b> <b>Total Depth: 36.85 ft</b> <b>Initial Depth to Water: 25.51 ft</b>	<b>Pump Type: Peristaltic Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 31 ft</b> <b>Estimated Total Volume Pumped: 4.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 14 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965658</b>
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## Test Notes:

Sample time 0940. Overcast 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
5/31/2023 9:10 AM	00:00	5.91 pH	19.41 °C	530.51 µS/cm	3.74 mg/L	2.34 NTU	76.2 mV	25.51 ft	150.00 ml/min
5/31/2023 9:15 AM	05:00	5.84 pH	19.00 °C	536.74 µS/cm	3.77 mg/L	1.75 NTU	64.4 mV	26.70 ft	150.00 ml/min
5/31/2023 9:20 AM	10:00	5.83 pH	18.99 °C	536.83 µS/cm	3.75 mg/L	1.28 NTU	62.3 mV	26.70 ft	150.00 ml/min
5/31/2023 9:25 AM	15:00	5.82 pH	19.01 °C	537.53 µS/cm	3.73 mg/L	0.49 NTU	62.2 mV	26.70 ft	150.00 ml/min
5/31/2023 9:30 AM	20:00	5.82 pH	18.99 °C	536.71 µS/cm	3.72 mg/L	0.45 NTU	63.4 mV	26.70 ft	150.00 ml/min
5/31/2023 9:35 AM	25:00	5.82 pH	18.99 °C	535.92 µS/cm	3.70 mg/L	0.63 NTU	65.3 mV	26.70 ft	150.00 ml/min
5/31/2023 9:40 AM	30:00	5.82 pH	18.97 °C	536.66 µS/cm	3.69 mg/L	0.53 NTU	67.0 mV	26.70 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 6/1/2023 9:20:12 AM

**Project:** Plant Branch Ash Ponds

**Operator Name:** Jordan Berisford

<b>Location Name:</b> PZ-73I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 18.69 ft <b>Total Depth:</b> 28.69 ft <b>Initial Depth to Water:</b> 7.44 ft	<b>Pump Type:</b> Peri Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 25 ft <b>Estimated Total Volume Pumped:</b> 4.5 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 6 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 965678
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## Test Notes:

Sunny, sample time-0950

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
6/1/2023 9:20 AM	00:00	5.60 pH	20.93 °C	530.86 µS/cm	1.26 mg/L	4.55 NTU	153.7 mV	7.44 ft	150.00 ml/min
6/1/2023 9:25 AM	05:00	5.47 pH	18.88 °C	531.31 µS/cm	0.21 mg/L	2.61 NTU	125.9 mV	7.80 ft	150.00 ml/min
6/1/2023 9:30 AM	10:00	5.48 pH	18.61 °C	532.61 µS/cm	0.15 mg/L	2.71 NTU	118.7 mV	8.00 ft	150.00 ml/min
6/1/2023 9:35 AM	15:00	5.48 pH	18.48 °C	532.43 µS/cm	0.12 mg/L	2.84 NTU	117.5 mV	8.00 ft	150.00 ml/min
6/1/2023 9:40 AM	20:00	5.48 pH	18.61 °C	530.61 µS/cm	0.11 mg/L	2.55 NTU	116.3 mV	8.00 ft	150.00 ml/min
6/1/2023 9:45 AM	25:00	5.48 pH	18.70 °C	529.58 µS/cm	0.10 mg/L	2.09 NTU	115.7 mV	8.00 ft	150.00 ml/min
6/1/2023 9:50 AM	30:00	5.49 pH	18.88 °C	529.27 µS/cm	0.09 mg/L	2.11 NTU	115.0 mV	8.00 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 6/6/2023 9:00:10 AM

Project: Plant Branch Ash Ponds

Operator Name: Jordan Berisford

<b>Location Name: PZ-74I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 40.95 ft</b> <b>Total Depth: 50.95 ft</b> <b>Initial Depth to Water: 28 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 45 ft</b> <b>Estimated Total Volume Pumped: 10 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 965678</b>
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## Test Notes:

Sunny, sample time 0940. Fe2+=1.5 mg/L

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 50	+/- 0.3	
6/6/2023 9:00 AM	00:00	6.42 pH	24.89 °C	7.74 µS/cm	8.05 mg/L	14.00 NTU	200.3 mV	28.00 ft	250.00 ml/min
6/6/2023 9:05 AM	05:00	5.72 pH	21.74 °C	480.42 µS/cm	0.91 mg/L	7.10 NTU	102.0 mV	28.30 ft	250.00 ml/min
6/6/2023 9:10 AM	10:00	5.76 pH	20.39 °C	490.53 µS/cm	0.27 mg/L	4.04 NTU	93.6 mV	28.30 ft	250.00 ml/min
6/6/2023 9:15 AM	15:00	5.76 pH	20.26 °C	492.36 µS/cm	0.21 mg/L	3.89 NTU	92.1 mV	28.30 ft	250.00 ml/min
6/6/2023 9:20 AM	20:00	5.77 pH	20.56 °C	489.77 µS/cm	0.19 mg/L	3.11 NTU	90.3 mV	28.40 ft	250.00 ml/min
6/6/2023 9:25 AM	25:00	5.79 pH	20.75 °C	489.34 µS/cm	0.17 mg/L	3.26 NTU	89.1 mV	28.40 ft	250.00 ml/min
6/6/2023 9:30 AM	30:00	5.82 pH	20.79 °C	509.81 µS/cm	0.17 mg/L	3.52 NTU	89.0 mV	28.40 ft	250.00 ml/min
6/6/2023 9:35 AM	35:00	5.82 pH	20.93 °C	525.93 µS/cm	0.15 mg/L	3.75 NTU	87.9 mV	28.40 ft	250.00 ml/min
6/6/2023 9:40 AM	40:00	5.83 pH	21.00 °C	524.40 µS/cm	0.15 mg/L	3.66 NTU	85.8 mV	28.40 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 7/5/2023 1:10:26 PM

Project: Plant Branch Ash Ponds

Operator Name: D. Johnson

<b>Location Name: PZ-75I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 20.48 ft</b> <b>Total Depth: 30.48 ft</b> <b>Initial Depth to Water: 17.73 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25.48 ft</b> <b>Estimated Total Volume Pumped: 5.2875 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 0.72 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sunny, 89 degrees F.

Sample time 1345.

## Weather Conditions:

Sunny, 87 degrees F. Sample time

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 50	+/- 0.3	
7/5/2023 1:10 PM	00:00	5.99 pH	35.40 °C	638.33 µS/cm	5.66 mg/L	130.00 NTU	-106.6 mV	17.73 ft	150.00 ml/min
7/5/2023 1:15 PM	05:15	5.68 pH	24.38 °C	640.04 µS/cm	2.56 mg/L	47.70 NTU	-114.9 mV	17.77 ft	150.00 ml/min
7/5/2023 1:20 PM	10:15	5.68 pH	24.02 °C	630.96 µS/cm	2.37 mg/L	39.20 NTU	-108.8 mV	17.78 ft	150.00 ml/min
7/5/2023 1:25 PM	15:15	5.67 pH	22.29 °C	655.10 µS/cm	2.57 mg/L	11.50 NTU	-109.7 mV	17.79 ft	150.00 ml/min
7/5/2023 1:30 PM	20:15	5.67 pH	22.53 °C	643.80 µS/cm	2.73 mg/L	6.24 NTU	-104.1 mV	17.79 ft	150.00 ml/min
7/5/2023 1:35 PM	25:15	5.67 pH	22.22 °C	646.68 µS/cm	2.89 mg/L	4.94 NTU	-102.0 mV	17.79 ft	150.00 ml/min
7/5/2023 1:40 PM	30:15	5.68 pH	21.66 °C	648.26 µS/cm	2.88 mg/L	4.47 NTU	-100.3 mV	17.79 ft	150.00 ml/min
7/5/2023 1:45 PM	35:15	5.68 pH	21.40 °C	650.62 µS/cm	2.97 mg/L	4.14 NTU	-98.8 mV	17.79 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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### Plant Branch Surface Water Samples 07/14/2023

Sample ID	Total Depth (ft)	Sample Depth (ft)	Time	Temp(F)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance (mS/cm)	Coordinates
LS+3A(surface)	4.4	Surface	1026	30.7	7.09	122.9	6.19	10.30	0.089	33.185681, -83.311205
LR+3(surface)	10.4	Surface	1019	30.5	7.05	118.0	6.08	9.81	0.087	33.185457, -83.311869
LR+3(mid)		5.0	1023	29.1	6.98	124.1	4.75	22.30	0.082	

# CALIBRATION REPORTS

Fall 2022



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch  
 TECHNICIAN: J. Beersford  
 WATER LEVEL: Solent  
 WATER LEVEL S/N: 267304

INSTRUMENT S/N: 850751  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:  
 ID: pH 4 LOT #: 21470032 EXP. DATE: 4/23  
 ID: pH 7 LOT #: 2158002 EXP. DATE: 4/23  
 ID: pH 10 LOT #: 20086056 EXP. DATE: 4/23  
 ID: Cond LOT #: 160805 EXP. DATE: 11/22  
 ID: ORP LOT #: 21146143 EXP. DATE: 4/23

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 8/23/22

RDO: 100% sat. = 100.3  
 PH: 4.00 = 9.06 7.00 = 7.02 10.00 = 9.91 Midday pH check  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = 7.01  
 CONDUCTIVITY: 1413 = 1441 post recal check  
 ORP (mV) 228 = 228

Calibration Date: 8/24/22

RDO: 100% sat. = 99.9  
 PH: 4.00 = 9.03 7.00 = 7.04 10.00 = 9.84 Midday pH check  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = 7.06  
 CONDUCTIVITY: 1413 = 1423  
 ORP (mV) 228 = 229

Calibration Date: 8/25/22

RDO: 100% sat. = 99.6  
 PH: 4.00 = 9.00 7.00 = 6.99 10.00 = 10.18 Midday pH check  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = 7.02  
 CONDUCTIVITY: 1413 = 1406  
 ORP (mV) 228 = 230

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch  
TECHNICIAN: J. P. Riefel

INSTRUMENT S/N: 17120663767  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # PI 1126 EXP. DATE: N/A  
10 NTU - LOT # A12012 EXP. DATE: 11/22  
20 NTU - LOT # A1267 EXP. DATE: 11/22

Calibration Date: 8/23/22

Calibration Solution	Instrument Reading	
0.0	<u>0.27</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>20.6</u>	NTU

Calibration Date: 8/24/22

Calibration Solution	Instrument Reading	
0.0	<u>0.19</u>	NTU
10.0	<u>9.98</u>	NTU
20.0	<u>20.4</u>	NTU

Calibration Date: 8/25/22

Calibration Solution	Instrument Reading	
0.0	<u>0.17</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: H. Ancl  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 48832

INSTRUMENT S/N: 883530  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/:

ID: <u>pH 4</u>	LOT #: <u>2GE870</u>	EXP. DATE: <u>8/24</u>
ID: <u>pH 7</u>	LOT #: <u>21010086</u>	EXP. DATE: <u>8/2022</u>
ID: <u>pH 10</u>	LOT #: <u>20086056</u>	EXP. DATE: <u>04/23</u>
ID: <u>Cond.</u>	LOT #: <u>2681062</u>	EXP. DATE: <u>02/23</u>
ID: <u>ORP</u>	LOT #: <u>21140143</u>	EXP. DATE: <u>04/23</u>
ID: _____	LOT #: _____	EXP. DATE: _____
ID: _____	LOT #: _____	EXP. DATE: _____

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 8-23-22

RDO: 100% sat. = 81% 106%  
 PH: 4.00 = 4.07 7.00 = 7.01 10.00 = 9.99 7.0 = 7.03  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1660  
 ORP (mV) 228 = 226

Midday pH check  
 7.0 = 7.03  
 7.0 = post recal check

Calibration Date: 8-24-22

RDO: 100% sat. = 98.4  
 PH: 4.00 = 4.01 7.00 = 6.94 10.00 = 9.91 7.0 = 7.01  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1390  
 ORP (mV) 228 = 230

Midday pH check  
 7.0 = 7.01  
 7.0 = post recal check

Calibration Date: 8-25-22

RDO: 100% sat. = 98.9%  
 PH: 4.00 = 4.02 7.00 = 6.99 10.00 = 9.97 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1428  
 ORP (mV) 228 = 229

Midday pH check  
 7.0 = 7.04  
 7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check  
 7.0 = \_\_\_\_\_  
 7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check  
 7.0 = \_\_\_\_\_  
 7.0 = post recal check



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: H. Amiel

INSTRUMENT S/N: 12050C017705  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI  
10 NTU - LOT # A2122 EXP. DATE: 8/23  
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 8-23-22

Calibration Solution	Instrument Reading	
0.0	<u>0.3</u>	NTU
10.0	<u>9.7</u>	NTU
20.0	<u>19.9</u>	NTU

Calibration Date: 8-24-22

Calibration Solution	Instrument Reading	
0.0	<u>0.2</u>	NTU
10.0	<u>9.91</u>	NTU
20.0	<u>19.2</u>	NTU

Calibration Date: 8-25-22

Calibration Solution	Instrument Reading	
0.0	<u>0.3</u>	NTU
10.0	<u>19.6</u>	NTU
20.0	<u>20.9</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: A Schmidt  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377060

INSTRUMENT S/N: 728566  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/ID: pH 4 LOT #: 16K617 EXP. DATE: 11/23  
pH 7 LOT #: 266169 EXP. DATE: 3/24  
pH 10 LOT #: 166429 EXP. DATE: 7/23  
Cond LOT #: 26F806 EXP. DATE: 6/23  
ORP LOT #: 21140143 EXP. DATE: 4/23

*Midday pH check*  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 8/23/22  
 RDO: 100% sat. = 96.46 *Midday pH check*  
 PH: 4.00 = 5.89 7.00 = 7.00 10.00 = 9.98 7.0 = 6.98  
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check  
 CONDUCTIVITY: 1413 = 1142  
 ORP (mV) 228 = 229.4

Calibration Date: 8/24/22  
 RDO: 100% sat. = 104.38 *Midday pH check*  
 PH: 4.00 = 4.05 7.00 = 7.04 10.00 = 10.01 7.0 = 6.99  
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check  
 CONDUCTIVITY: 1413 = 1422  
 ORP (mV) 228 = 233

Calibration Date: 8/25/22  
 RDO: 100% sat. = 99.0 *Midday pH check*  
 PH: 4.00 = 4.00 7.00 = 7.02 10.00 = 9.96 7.0 = 7.00  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1447.6  
 ORP (mV) 228 = 228.3

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_





# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: A Schmittler

INSTRUMENT S/N: 11090C012353  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI  
10 NTU - LOT # A2122 EXP. DATE: 8/23  
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 8/23/22

Calibration Solution	Instrument Reading	
0.0	0.57	NTU
10.0	10.1	NTU
20.0	20.8	NTU

Calibration Date: 8/24/22

Calibration Solution	Instrument Reading	
0.0	0.28	NTU
10.0	10.7	NTU
20.0	19.5	NTU

Calibration Date: 8/25/22

Calibration Solution	Instrument Reading	
0.0	0.23	NTU
10.0	9.88	NTU
20.0	20.5	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: \_\_\_\_\_ T. Goble \_\_\_\_\_  
 WATER LEVEL: \_\_\_\_\_ Solinst \_\_\_\_\_  
 WATER LEVEL S/N: \_\_\_\_\_ 236986 \_\_\_\_\_

INSTRUMENT S/N: \_\_\_\_\_ 883536 \_\_\_\_\_  
 INSTRUMENT TYPE: AquaTroll \_\_\_\_\_  
 CAL. SOLUTION/S: ID: PH 4 LOT #: 21470032 EXP. DATE: 4/23  
 ID: PH 7 LOT #: 21380102 EXP. DATE: 4/23  
 ID: PH 10 LOT #: 20080056 EXP. DATE: 4/23  
 ID: Cond LOT #: 21470032 EXP. DATE: 4/23  
 ID: ORP LOT #: 2114013 EXP. DATE: 4/23

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)

Recalibrate if not within range

Calibration Date: 8-23-22

RDO: 100% sat. = 102.18 \_\_\_\_\_ Midday pH check  
 PH: 4.00 = 4.12      7.00 = 7.01      10.00 = 9.93      7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check N/A  
 CONDUCTIVITY: 4490 = 4410 \_\_\_\_\_  
 ORP (mV) 226 = 217.7 \_\_\_\_\_

Calibration Date: 8-24-22

RDO: 100% sat. = 101.93 \_\_\_\_\_ Midday pH check  
 PH: 4.00 = 4.03      7.00 = 7.01      10.00 = 10.09      7.0 = 7.02  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check N/A  
 CONDUCTIVITY: 4490 = 4468 \_\_\_\_\_  
 ORP (mV) 228 = 227.1 \_\_\_\_\_

Calibration Date: 8-25-22

RDO: 100% sat. = 100.14 \_\_\_\_\_ Midday pH check  
 PH: 4.00 = 4.03      7.00 = 6.99      10.00 = 9.97      7.0 = 7.02  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check N/A  
 CONDUCTIVITY: 4490 = 4470 \_\_\_\_\_  
 ORP (mV) 228 = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: T. Goble

INSTRUMENT S/N: 150410C040490  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New 01  
10 NTU - LOT # 2964401 EXP. DATE: 10/22  
20 NTU - LOT # 2684801 EXP. DATE: 10/22

Calibration Date: 8-23-22

Calibration Solution	Instrument Reading	
0.0	0.31	NTU
10.0	10.9	NTU
20.0	21.2	NTU

100 = 101  
800 = 795

Calibration Date: 8-24-22

Calibration Solution	Instrument Reading	
0.0	0.27	NTU
10.0	10.8	NTU
20.0	20.2	NTU

100 = 101  
800 = 802

Calibration Date: 8-25-22

Calibration Solution	Instrument Reading	
0.0	0.24	NTU
10.0	10.6	NTU
20.0	20.0	NTU

100 = 100  
800 = 803

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: J. Benford  
 WATER LEVEL: Solvent  
 WATER LEVEL S/N: 267304

INSTRUMENT S/N: 883530  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/ID: PH 4 LOT #: 1616617 EXP. DATE: 11/23  
PH 7 LOT #: 161458 EXP. DATE: 6/23  
PH 10 LOT #: 266042 EXP. DATE: 7/24  
Cond LOT #: 265806 EXP. DATE: 6/23  
ORP LOT #: 261316 EXP. DATE: 11/22

*Midday pH check*  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 10/11/22

RDO: 100% sat. = 99.0 *Midday pH check*  
 PH: 4.00 = 4.00 7.00 = 7.11 10.00 = 10.11 7.0 = 7.02  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 917  
 ORP (mV) 240 = 247.1

Calibration Date: 10/12/22

RDO: 100% sat. = 100.9 *Midday pH check*  
 PH: 4.00 = 4.07 7.00 = 7.06 10.00 = 10.08 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1713 = 1600  
 ORP (mV) 240 = 229.7

Calibration Date: \_\_\_\_\_

RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_

RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_

RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_





## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: J. Bengler

INSTRUMENT S/N: 171206063767  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # DI 420 EXP. DATE: N/A  
10 NTU - LOT # A1201C EXP. DATE: 11/22  
20 NTU - LOT # A1207 EXP. DATE: 4/22

Calibration Date: 10/11/22

Calibration Solution	Instrument Reading	
0.0	<u>0.25</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>20.0</u>	NTU

Calibration Date: 10/12/22

Calibration Solution	Instrument Reading	
0.0	<u>0.22</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.1</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: 1 Plant Branch  
 TECHNICIAN: T. Goble  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 236986

INSTRUMENT S/N: 714344  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTION/S:  
 ID: pH 4 LOT #: 2GG181 EXP. DATE: 7/24  
 ID: pH 7 LOT #: 2GG042 EXP. DATE: 7/24  
 ID: pH 10 LOT #: 1GF958 EXP. DATE: 6/23  
 ID: ORP LOT #: 2G2207 EXP. DATE: 6/23  
 ID: Cond LOT #: 1GH998 EXP. DATE: 10-22 *Midday pH check*  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ *Must be less than .10*  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ *(6.90-7.10 range)*  
*Recalibrate if not within range*

Calibration Date: 10-11-22  
 RDO: 100% sat. = 90.28 *Midday pH check*  
 PH: 4.00 = 3.82 7.00 = 6.77 10.00 = 9.83 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 =  post recal check *WA*  
 CONDUCTIVITY: 1413 = 1312  
 ORP (mV) 240 = 238.2

Calibration Date: 10-12-22  
 RDO: 100% sat. = 106.25 *Midday pH check*  
 PH: 4.00 = 4.04 7.00 = 7.01 10.00 = 10.09 7.0 = 7.07  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 =  post recal check *WA*  
 CONDUCTIVITY: 1413 = 1341  
 ORP (mV) 240 = 236.3

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: T. Goble

INSTRUMENT S/N: 11090C012353  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI  
10 NTU - LOT # 2564801 EXP. DATE: 8-23  
20 NTU - LOT # 2664801 EXP. DATE: 8-23

Calibration Date: 10-11-22

Calibration Solution	Instrument Reading	
0.0	0.18	NTU
10.0	10.4	NTU
20.0	20.0	NTU

100 = 100  
800 = 788

Calibration Date: 10-12-22

Calibration Solution	Instrument Reading	
0.0	0.23	NTU
10.0	10.7	NTU
20.0	20.5	NTU

100 = 102  
800 = 803

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



### Daily Instrument Calibration Log

SITE: Plant Branch  
 TECHNICIAN: J. Bradford

WATER LEVEL: solinst  
 WATER LEVEL S/N: 267304

INSTRUMENT S/N: 883530  
 INSTRUMENT TYPE: chlorine trial

CAL. SOLUTION/S:	ID:	LOT #:	EXP. DATE:
	PH 4	260243	3/21
	PH 7	161340	11/23
	PH 10	161054	11/23
	ORP	261110	11/22
	Cond	1611805	11/22
	ID:	LOT #:	EXP. DATE:
	ID:	LOT #:	EXP. DATE:

**Calibration Date:** 10/4/22

RDO: 100% sat. = 97.4  
 PH: 4.00 = 3.93      7.00 = 6.92      10.00 = 10.04  
 CONDUCTIVITY: 1413 = 1783  
 ORP (mV) 240      223.1

*Middy check  
7.00 = 7.04*

**Calibration Date:** 10/5/22

RDO: 100% sat. = 99.2  
 PH: 4.00 = 4.12      7.00 = 7.11      10.00 = 10.10  
 CONDUCTIVITY: 1413 = 1246  
 ORP (mV) 240      242.9

*7.00 = 7.07*

**Calibration Date:** 10/6/22

RDO: 100% sat. = 100.8  
 PH: 4.00 = 3.95      7.00 = 7.05      10.00 = 10.19  
 CONDUCTIVITY: 1413 = 1774  
 ORP (mV) 240 = 239.7

*7.00 = 7.05*

**Calibration Date:** 10/7/22

RDO: 100% sat. = 99.5  
 PH: 4.00 = 3.98      7.00 = 7.02      10.00 = 10.03  
 CONDUCTIVITY: 1413 = 1292  
 ORP (mV) 240 = 239.1

*7.00 = 7.03*

**Calibration Date:**

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_  
 CONDUCTIVITY: \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_





## Daily Instrument Calibration Log

SITE: Plant Branch  
 TECHNICIAN: J. Brostern

INSTRUMENT S/N: 17120C063767  
 INSTRUMENT TYPE: Hach 2100 Q Turbidity Meter  
 CAL. SOLUTION: 0 NTU - LOT # N/A      EXP. DATE: 2/1/20  
                   10 NTU - LOT # A1201R      EXP. DATE: 4/22  
                   20 NTU - LOT # A1207      EXP. DATE: 11/22  
                   100 NTU - LOT # A1209      EXP. DATE: 4/22  
                   800 NTU - LOT # A1211      EXP. DATE: 11/22

Calibration Date: 10/21/22

Calibration Solution	Instrument Reading	
0.0	0.32	NTU
10.0	10.1	NTU
20.0	20.7	NTU
100.0	102	NTU
800.0	784	NTU

Calibration Date: 10/5/22

Calibration Solution	Instrument Reading	
0.0	0.30	NTU
10.0	10.2	NTU
20.0	20.2	NTU
100	105	NTU
800	794	NTU

Calibration Date: 10/6/22

Calibration Solution	Instrument Reading	
0.0	0.27	NTU
10.0	9.82	NTU
20.0	20.1	NTU
100	101	NTU
800	795	NTU

Calibration Date: 10/7/22

Calibration Solution	Instrument Reading	
0.0	0.19	NTU
10.0	9.72	NTU
20.0	19.4	NTU
100	108	NTU
800	781	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: T. Goble  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 236986  
 INSTRUMENT S/N: 714302  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTION/S: ID: pH4 LOT #: 2G5870 EXP. DATE: 5/24  
 ID: pH7 LOT #: 2G6042 EXP. DATE: 7/24  
 ID: pH10 LOT #: 2G8707 EXP. DATE: 2/24  
 ID: ORP LOT #: 2G1207 EXP. DATE: 6/23  
 ID: Cond LOT #: 1GK805 EXP. DATE: 1/22 **Midday pH check**  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ **Must be less than .10**  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ **(6.90-7.10 range)**  
 Recalibrate if not within range

Calibration Date: 10-4-22  
 RDO: 100% sat. = 99.31 **Midday pH check**  
 PH: 4.00 = 3.99 7.00 = 7.16 10.00 = 10.97 7.0 = 7.02  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 =  post recal check NA  
 CONDUCTIVITY: 1413 = 1368  
 ORP (mV) 240 = 246.1

Calibration Date: 10-5-22  
 RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = 3.96 7.00 = 6.96 10.00 = 10.34 7.0 = 7.08  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 =  post recal check NA  
 CONDUCTIVITY: 1413 = 1271  
 ORP (mV) 240 = 199.2

Calibration Date: 10-6-22  
 RDO: 100% sat. = 104.67 **Midday pH check**  
 PH: 4.00 = 4.34 7.00 = 7.16 10.00 = 9.52 7.0 = 7.08  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 =  post recal check NA  
 CONDUCTIVITY: 1413 = 1432  
 ORP (mV) 240 = 271.4

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: T. Goble

INSTRUMENT S/N: 11090C012353  
 INSTRUMENT TYPE: Hach 2100Q  
 CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: New DI  
10 NTU - LOT # 2961801 EXP. DATE: 8/23  
20 NTU - LOT # 2694901 EXP. DATE: 8/23

Calibration Date: 10-4-22

Calibration Solution	Instrument Reading	
0.0	<u>0.18</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>19.8</u>	NTU

100 = 98.8  
800 = 788

Calibration Date: 10-5-22

Calibration Solution	Instrument Reading	
0.0	<u>0.21</u>	NTU
10.0		NTU
20.0	<u>20.5</u>	NTU

100 = 101  
800 = 806

Calibration Date: 10-6-22

Calibration Solution	Instrument Reading	
0.0	<u>0.20</u>	NTU
10.0	<u>10.5</u>	NTU
20.0	<u>20.1</u>	NTU

100 = 99.3  
800 = 805

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: \_\_\_\_\_ T. Goble \_\_\_\_\_  
 WATER LEVEL: \_\_\_\_\_ Solinst \_\_\_\_\_  
 WATER LEVEL S/N: \_\_\_\_\_ 236946 \_\_\_\_\_

INSTRUMENT S/N: \_\_\_\_\_ 965658 \_\_\_\_\_  
 INSTRUMENT TYPE: AquaTroll \_\_\_\_\_  
 CAL. SOLUTIONS: ID: ORP LOT #: 2GT207 EXP. DATE: 6-23  
 ID: pH4 LOT #: 2GG184 EXP. DATE: 7-24  
 ID: pH7 LOT #: 2GG042 EXP. DATE: 7-24  
 ID: pH10 LOT #: 2GG018 EXP. DATE: 7-24  
 ID: Cond LOT #: 2GF906 EXP. DATE: 6-23

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 11-7-22

RDO: 100% sat. = 97.22  
 PH: 4.00 = 3.98      7.00 = 6.73      10.00 = 10.12  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: 1413 = 1372  
 ORP (mV) 240 = 219.9

Midday pH check  
 7.0 = N/A - no recal needed, only sample 1 well  
 7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check  
 7.0 =  
 7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check  
 7.0 =  
 7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check  
 7.0 =  
 7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check  
 7.0 =  
 7.0 = post recal check



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch  
TECHNICIAN: T. Goble

INSTRUMENT S/N: 11090C012353  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # New DI EXP. DATE: ---  
10 NTU - LOT # 2961401 EXP. DATE: 8/23  
20 NTU - LOT # 2694901 EXP. DATE: 8/23

Calibration Date: 11-7-22

Calibration Solution	Instrument Reading	
0.0	<u>0.27</u>	NTU
10.0	<u>10.3</u>	NTU
20.0	<u>20.1</u>	NTU

100 = 100  
800 = 802

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

January/February 2023





# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: \_\_\_\_\_ J. Beasford \_\_\_\_\_  
 WATER LEVEL: \_\_\_\_\_ Solus<sup>+</sup> \_\_\_\_\_  
 WATER LEVEL S/N: \_\_\_\_\_ 267304 \_\_\_\_\_

INSTRUMENT S/N: \_\_\_\_\_ 965678 \_\_\_\_\_  
 INSTRUMENT TYPE: AquaTroll \_\_\_\_\_  
 CAL. SOLUTIONS/ID: PH 4 LOT #: 16K617 EXP. DATE: 11/23  
PH 7 LOT #: 266042 EXP. DATE: 07/24  
PH 10 LOT #: 16F458 EXP. DATE: 6/23  
Cond LOT #: 26F806 EXP. DATE: 6/23  
ORP LOT #: 266454 EXP. DATE: 4/23

*Midday pH check*  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

**Calibration Date:** 1/24/23

RDO: 100% sat. = 93.4 *Midday pH check*  
 PH: 4.00 = 3.89 7.00 = 7.02 10.00 = 10.20 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1155  
 ORP (mV) 240 = 261

**Calibration Date:** 1/29/23

RDO: 100% sat. = 100.2 *Midday pH check*  
 PH: 4.00 = 4.17 7.00 = 7.08 10.00 = 10.01 7.0 = 7.12  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1137  
 ORP (mV) 240 = ~~237~~ 237.9

**Calibration Date:** 1/26/23

RDO: 100% sat. = 100.7 *Midday pH check*  
 PH: 4.00 = 3.94 7.00 = 6.45 10.00 = 10.12 7.0 = 7.01  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1307  
 ORP (mV) 240 = 257.4

**Calibration Date:**

RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

**Calibration Date:**

RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: J. B. Stord

INSTRUMENT S/N: 2208D000803  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # N/A EXP. DATE: PJ 11/20  
10 NTU - LOT # A2075 EXP. DATE: 7/23  
20 NTU - LOT # 12200 EXP. DATE: 11/23

Calibration Date: 1/24/23

Calibration Solution	Instrument Reading	
0.0	<u>0.20</u>	NTU
10.0	<u>9.38</u>	NTU
20.0	<u>21.1</u>	NTU

Calibration Date: 1/25/23

Calibration Solution	Instrument Reading	
0.0	<u>0.14</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>21.2</u>	NTU

Calibration Date: 1/26/23

Calibration Solution	Instrument Reading	
0.0	<u>0.20</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>20.4</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Toby Johnson  
 WATER LEVEL: Seilinst  
 WATER LEVEL S/N: 372101

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTION/S:  
 ID: Cond LOT # 26E994 EXP. DATE: 5/23  
 ID: pH 4 LOT # 16K617 EXP. DATE: 11/23  
 ID: pH 7 LOT # 266042 EXP. DATE: 7/24  
 ID: pH 10 LOT # 266018 EXP. DATE: 7/24  
 ID: ORP LOT # 26J207 EXP. DATE: 6/23

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 1/24/23  
 RDO: 100% sat. = 94.39  
 PH: 4.00 = 3.96 7.00 = 7.10 10.00 = 10.11 7.0 = 7.01  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 880.70  
 ORP (mV) 240 = 262.4

Calibration Date: 1/25/23  
 RDO: 100% sat. = 102.77  
 PH: 4.00 = 4.11 7.00 = 7.06 10.00 = 10.15 7.0 = 7.02  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1284.6  
 ORP (mV) 240 = 226.9

Calibration Date: 1/26/23  
 RDO: 100% sat. = 100.99  
 PH: 4.00 = 4.05 7.00 = 7.05 10.00 = 10.06 7.0 = 6.99  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1257.4  
 ORP (mV) 240 = 251.8

Calibration Date: 1/27/23  
 RDO: 100% sat. = 99.56  
 PH: 4.00 = 3.99 7.00 = 7.02 10.00 = 10.05 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1233.7  
 ORP (mV) 240 = 251.8

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: Toby Johnson

INSTRUMENT S/N: 11090C012353  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # New EXP. DATE: D.I. water  
10 NTU - LOT # A2122 EXP. DATE: 08/23  
20 NTU - LOT # A2124 EXP. DATE: 08/23

Calibration Date: 01/24/2023

Calibration Solution	Instrument Reading	
0.0	<u>0.27</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.9</u>	NTU

Calibration Date: 1/25/2023

Calibration Solution	Instrument Reading	
0.0	<u>0.36</u>	NTU
10.0	<u>10.0</u>	NTU
20.0	<u>19.2 19.4</u>	NTU

Calibration Date: 1/26/23

Calibration Solution	Instrument Reading	
0.0	<u>0.26</u>	NTU
10.0	<u>9.88</u>	NTU
20.0	<u>20.9</u>	NTU

Calibration Date: 1/27/23

Calibration Solution	Instrument Reading	
0.0	<u>0.34</u>	NTU
10.0	<u>9.99</u>	NTU
20.0	<u>21.0</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Dener Schnisen  
 WATER LEVEL: Schnist  
 WATER LEVEL S/N: 530984

INSTRUMENT S/N: 714302 / 843285  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:

ID: <u>pH 4</u>	LOT #: <u>266718</u>	EXP. DATE: <u>07/2024</u>
ID: <u>pH 10</u>	LOT #: <u>266018</u>	EXP. DATE: <u>07/2024</u>
ID: <u>pH 7</u>	LOT #: <u>268590</u>	EXP. DATE: <u>05/2024</u>
ID: <u>conductivity</u>	LOT #: <u>268998</u>	EXP. DATE: <u>05/2023</u>
ID: <u>ORP</u>	LOT #: <u>266459</u>	EXP. DATE: <u>04/2023</u>
ID: _____	LOT #: _____	EXP. DATE: _____
ID: _____	LOT #: _____	EXP. DATE: _____

*Midday pH check*  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 1/24/23 / 714302

RDO: 100% sat. = 91.01 *Midday pH check*  
 PH: 4.00 = 4.21      7.00 = 7.18      10.00 = 10.22      7.0 = 7.09  
 PH Recal (if needed): 4.00 = 3.89      7.00 = 7.09      10.00 = 10.20      7.0 = 7.09 post recal check  
 CONDUCTIVITY: 1413 = 1004.10  
 ORP (mV) 256 = 266

Calibration Date: 1/24/23 / 843285

RDO: 100% sat. = 102.19 % *Midday pH check*  
 PH: 4.00 = 4.10      7.00 = 7.27      10.00 = 10.05      7.0 = 7.08  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1402  
 ORP (mV) 228 = 245.1

Calibration Date: 1/25/23 -> 843285

RDO: 100% sat. = 101.5 *Midday pH check*  
 PH: 4.00 = 4.11      7.00 = 6.98      10.00 = 10.21      7.0 = 7.07  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 911.83  
 ORP (mV) 228 = 236.1

Calibration Date: 1/26/23 -> 843285

RDO: 100% sat. = 99.20 % *Midday pH check*  
 PH: 4.00 = 4.03      7.00 = 7.06      10.00 = 10.22      7.0 = NA  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1026.4  
 ORP (mV) 228 = 255.8

Calibration Date: \_\_\_\_\_

RDO: 100% sat. = \_\_\_\_\_ *Midday pH check*  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: Dever Johnson

INSTRUMENT S/N: 22090D000108  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # \_\_\_\_\_ EXP. DATE: DI Water  
10 NTU - LOT # A2264 EXP. DATE: Jan 2024  
20 NTU - LOT # A2200 EXP. DATE: 11/23

Calibration Date: 1/24/23

Calibration Solution	Instrument Reading	
0.0	0.0	NTU
10.0	10.0	NTU
20.0	20.0	NTU

Calibration Date: 1/25/23

Calibration Solution	Instrument Reading	
0.0	0.0	NTU
10.0	10.0	NTU
20.0	19.7	NTU

Calibration Date: 1/26/23

Calibration Solution	Instrument Reading	
0.0	0.0	NTU
10.0	10.3	NTU
20.0	19.9	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





### Daily Instrument Calibration Log

SITE: Plant Branch APs  
 TECHNICIAN: A. Schmittner  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377060

INSTRUMENT S/N: 884186  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/ID: pH 4 LOT #: 20E870 EXP. DATE: 05/24  
pH 7 LOT #: 16L340 EXP. DATE: 12/23  
pH 10 LOT #: 26G018 EXP. DATE: 7/24  
Con LOT #: 7LF806 EXP. DATE: 6/23  
ORP LOT #: 2146143 EXP. DATE: 04/23

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 1/30/23

RDO: 100% sat. = 99.43 Midday pH check  
 PH: 4.00 = 4.07 7.00 = 7.04 10.00 = 10.04 7.0 = 7.03  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1366.8  
 ORP (mV) 228 = 237.2

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =



# Daily Instrument Calibration Log

SITE: Plant Branch APs  
TECHNICIAN: A Schnittler

INSTRUMENT S/N: 2207D000463  
INSTRUMENT TYPE: Hach 2100G  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI  
10 NTU - LOT # A2264 EXP. DATE: 1/24  
20 NTU - LOT # A2231 EXP. DATE: 12/23

Calibration Date: 1/30/23

Calibration Solution	Instrument Reading	
0.0	0.51	NTU
10.0	10.11	NTU
20.0	20.0	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Toby Johnson  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 322101

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:

ID: <u>Cond</u>	LOT #: <u>26E994</u>	EXP. DATE: <u>5/23</u>
ID: <u>PH 10</u>	LOT #: <u>266018</u>	EXP. DATE: <u>7/24</u>
ID: <u>PH 7</u>	LOT #: <u>266042</u>	EXP. DATE: <u>7/24</u>
ID: <u>PH 4</u>	LOT #: <u>16K617</u>	EXP. DATE: <u>11/23</u>
ID: <u>ORP</u>	LOT #: <u>26J207</u>	EXP. DATE: <u>6/23</u>

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 1/30/23  
 RDO: 100% sat. = 94.32 Midday pH check  
 PH: 4.00 = 3.92 7.00 = 6.94 10.00 = 9.95 7.0 = NA  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1155.4  
 ORP (mV) 240 = 231.1

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: Toby Johnson

INSTRUMENT S/N: 11090C012353  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # P.I water EXP. DATE: NEW  
10 NTU - LOT # A2122 EXP. DATE: 8/23  
20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 1/30/23

Calibration Solution	Instrument Reading	
0.0	<u>0.14</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>18.9</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





# Daily Instrument Calibration Log

SITE: Plant McIntosh  
 TECHNICIAN: T. Cobble  
 WATER LEVEL: Solingt  
 WATER LEVEL S/N: 378591

INSTRUMENT S/N: 877800  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:

ID: <u>Cond</u>	LOT #:	<u>21470032</u>	EXP. DATE:	<u>4/23</u>
ID: <u>pH 4</u>	LOT #:	<u>21470032</u>	EXP. DATE:	<u>4/23</u>
ID: <u>pH 7</u>	LOT #:	<u>2244069</u>	EXP. DATE:	<u>8/23</u>
ID: <u>pH 10</u>	LOT #:	<u>20070056</u>	EXP. DATE:	<u>4/23</u>
ID: <u>ORP</u>	LOT #:	<u>2140143</u>	EXP. DATE:	<u>4/23</u>
ID:	LOT #:		EXP. DATE:	
ID:	LOT #:		EXP. DATE:	

*Midday pH check*  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 1-30-23  
 RDO: 100% sat. = 96.02  
 PH: 4.00 = 4.05      7.00 = 7.05      10.00 = 9.57  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = NX post recal check ✓  
 CONDUCTIVITY: 4490 = 4630  
 ORP (mV) 228 = 200.7

*Midday pH check*  
 7.0 =  
 7.0 = NX post recal check ✓

Calibration Date: 1-31-23  
 RDO: 100% sat. = 102.09  
 PH: 4.00 = 4.02      7.00 = 7.00      10.00 = 10.12  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = 7.04 post recal check ✓  
 CONDUCTIVITY: 4490 = 4068  
 ORP (mV) 228 = 243

*Midday pH check*  
 7.0 =  
 7.0 = 7.04 post recal check ✓

Calibration Date: 2-1-23  
 RDO: 100% sat. = 98.13  
 PH: 4.00 = 4.04      7.00 = 7.01      10.00 = 10.07  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = 7.02 post recal check ✓  
 CONDUCTIVITY: 4553 = 4490  
 ORP (mV) 228 = 222.9

*Midday pH check*  
 7.0 =  
 7.0 = 7.02 post recal check ✓

Calibration Date: 2-2-23  
 RDO: 100% sat. =  
 PH: 4.00 =      7.00 =      10.00 =      7.0 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

*Midday pH check*  
 7.0 =  
 7.0 = post recal check

Calibration Date:  
 RDO: 100% sat. =  
 PH: 4.00 =      7.00 =      10.00 =      7.0 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

*Midday pH check*  
 7.0 =  
 7.0 = post recal check



### Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: T. Gable

INSTRUMENT S/N: 16040C049743  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # - EXP. DATE: New DI  
10 NTU - LOT # A2090 EXP. DATE: 7/23  
20 NTU - LOT # A2085 EXP. DATE: 6/23

Calibration Date: 1-30-23

Calibration Solution	Instrument Reading	
0.0	<u>0.15</u>	NTU
10.0	<u>10.3</u>	NTU
20.0	<u>20.4</u>	NTU

100 = 102  
800 = 803

Calibration Date: 1-31-23

Calibration Solution	Instrument Reading	
0.0	<u>0.18</u>	NTU
10.0	<u>10.5</u>	NTU
20.0	<u>20.3</u>	NTU

100 = 101  
800 = 806

Calibration Date: 2-1-23

Calibration Solution	Instrument Reading	
0.0	<u>0.13</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.0</u>	NTU

100 = 103  
800 = 803

Calibration Date: 2-2-23

Calibration Solution	Instrument Reading	
0.0	<u>0.11</u>	NTU
10.0	<u>10.6</u>	NTU
20.0	<u>20.1</u>	NTU

100 = 104  
800 = 805

Calibration Date: \_\_\_\_\_

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date: \_\_\_\_\_

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Toby Johnson  
 WATER LEVEL: Salinst  
 WATER LEVEL S/N: 322101

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:  
 ID: ORP LOT #: 26L022 EXP. DATE: 9/23  
 ID: Cond LOT #: 26F806 EXP. DATE: 6/23  
 ID: pH4 LOT #: 26H1670 EXP. DATE: 8/24  
 ID: pH7 LOT #: 26L348 EXP. DATE: 12/23  
 ID: pH10 LOT #: 26H903 EXP. DATE: 8/24 **Midday pH check**  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ **Must be less than .10**  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ **(6.90-7.10 range)**  
 Recalibrate if not within range

Calibration Date: 03/13/23  
 RDO: 100% sat. = 112.59 **Midday pH check**  
 PH: 4.00 = 4.10 7.00 = 6.94 10.00 = 10.00 7.0 = 7.03  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1155.5  
 ORP (mV) 240 = 236.8

Calibration Date: 03/14/23  
 RDO: 100% sat. = 98.81 **Midday pH check**  
 PH: 4.00 = 4.06 7.00 = 7.10 10.00 = 10.26 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1304.7  
 ORP (mV) 240 = 246.3

Calibration Date: ~~03/15/23~~  
 RDO: 100% sat. = 101.27 **Midday pH check**  
 PH: 4.00 = 3.98 7.00 = 7.07 10.00 = 10.15 7.0 = 7.07  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1256.1  
 ORP (mV) 240 = 247.9

Calibration Date: 03/16/23  
 RDO: 100% sat. = 104.24 **Midday pH check**  
 PH: 4.00 = 3.99 7.00 = 7.06 10.00 = 10.13 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1118.6  
 ORP (mV) 240 = 260.2

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Tom Johnson

INSTRUMENT S/N: 11090C012353  
 INSTRUMENT TYPE: Hach 2100Q  
 CAL. SOLUTION: 0 NTU - LOT # A EXP. DATE: P.I. water (New)  
 10 NTU - LOT # A2122 EXP. DATE: 8/23  
 20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 03/13/23

Calibration Solution	Instrument Reading	
0.0	<u>0.12</u>	NTU
10.0	<u>9.67</u>	NTU
20.0	<u>19.9</u>	NTU

Calibration Date: 03/14/23

Calibration Solution	Instrument Reading	
0.0	<u>0.19</u>	NTU
10.0	<u>9.29</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date: 03/15/23

Calibration Solution	Instrument Reading	
0.0	<u>0.42</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>19.6</u>	NTU

Calibration Date: 03/16/23

Calibration Solution	Instrument Reading	
0.0	<u>0.17</u>	NTU
10.0	<u>9.88</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# March-June 2023

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965658  
Created 3/16/2023

Sensor **RDO**  
Serial Number 964434  
Last Calibrated 3/16/2023

---

## *Calibration Details*

Slope 0.9849191  
Offset 0.00 mg/L

## *Calibration point 100%*

Concentration 12.13 mg/L  
Temperature 7.54 °C  
Barometric Pressure 1,010.8 mbar

Sensor **Conductivity**  
Serial Number 965658  
Last Calibrated 3/16/2023

---

## *Calibration Details*

Cell Constant 1.031  
Reference Temperature 20.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**  
Serial Number 962246  
Last Calibrated Factory Defaults

---

Sensor	pH/ORP
Serial Number	22007
Last Calibrated	3/16/2023

---

#### *Calibration Details*

---

Total Calibration Points	3
--------------------------	---

#### *Calibration Point 1*

---

pH of Buffer	4.00 pH
pH mV	122.7 mV
Temperature	5.70 °C

#### *Calibration Point 2*

---

pH of Buffer	7.06 pH
pH mV	-37.7 mV
Temperature	5.00 °C

#### *Calibration Point 3*

---

pH of Buffer	10.14 pH
pH mV	-210.6 mV
Temperature	4.23 °C

#### *Slope and Offset 1*

---

Slope	-52.43 mV/pH
Offset	-34.5 mV

#### *Slope and Offset 2*

---

Slope	-56.15 mV/pH
Offset	-34.3 mV

#### *ORP*

---

ORP Solution	Zobell's
Offset	36.0 mV
Temperature	7.02 °C



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Toby Johnson  
 WATER LEVEL: Salinst  
 WATER LEVEL S/N: 322101

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:  
 ID: ORP LOT #: 26L022 EXP. DATE: 9/23  
 ID: Cond LOT #: 26F806 EXP. DATE: 6/23  
 ID: pH4 LOT #: 26H1670 EXP. DATE: 8/24  
 ID: pH7 LOT #: 26L348 EXP. DATE: 12/23  
 ID: pH10 LOT #: 26H903 EXP. DATE: 8/24 **Midday pH check**  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ **Must be less than .10**  
 ID: \_\_\_\_\_ LOT #: \_\_\_\_\_ EXP. DATE: \_\_\_\_\_ **(6.90-7.10 range)**  
 Recalibrate if not within range

Calibration Date: 03/13/23  
 RDO: 100% sat. = 112.59 **Midday pH check**  
 PH: 4.00 = 4.10 7.00 = 6.94 10.00 = 10.00 7.0 = 7.03  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1155.5  
 ORP (mV) 240 = 236.8

Calibration Date: 03/14/23  
 RDO: 100% sat. = 98.81 **Midday pH check**  
 PH: 4.00 = 4.06 7.00 = 7.10 10.00 = 10.26 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1304.7  
 ORP (mV) 240 = 246.3

Calibration Date: 03/15/23  
 RDO: 100% sat. = 101.27 **Midday pH check**  
 PH: 4.00 = 3.98 7.00 = 7.07 10.00 = 10.15 7.0 = 7.07  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1256.1  
 ORP (mV) 240 = 247.9

Calibration Date: 03/16/23  
 RDO: 100% sat. = 104.24 **Midday pH check**  
 PH: 4.00 = 3.99 7.00 = 7.06 10.00 = 10.13 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1118.6  
 ORP (mV) 240 = 260.2

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_





# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: Tom Johnson

INSTRUMENT S/N: 11090C012353  
 INSTRUMENT TYPE: Hach 2100Q  
 CAL. SOLUTION: 0 NTU - LOT # A EXP. DATE: P.I. water (New)  
 10 NTU - LOT # A2122 EXP. DATE: 8/23  
 20 NTU - LOT # A2124 EXP. DATE: 8/23

Calibration Date: 03/13/23

Calibration Solution	Instrument Reading	
0.0	<u>0.12</u>	NTU
10.0	<u>9.67</u>	NTU
20.0	<u>19.9</u>	NTU

Calibration Date: 03/14/23

Calibration Solution	Instrument Reading	
0.0	<u>0.19</u>	NTU
10.0	<u>9.29</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date: 03/15/23

Calibration Solution	Instrument Reading	
0.0	<u>0.42</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>19.6</u>	NTU

Calibration Date: 03/16/23

Calibration Solution	Instrument Reading	
0.0	<u>0.17</u>	NTU
10.0	<u>9.88</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965658  
Created 3/29/2023

Sensor **RDO**

---

Serial Number 964434  
Last Calibrated 3/29/2023

## Calibration Details

Slope 1.105065  
Offset 0.00 mg/L

## Calibration point 100%

Concentration 7.76 mg/L  
Temperature 22.56 °C  
Barometric Pressure 1,011.1 mbar

Sensor **Conductivity**

---

Serial Number 965658  
Last Calibrated 3/29/2023

## Calibration Details

Cell Constant 0.865  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 962246  
Last Calibrated Factory Defaults

Sensor	pH/ORP
Serial Number	22007
Last Calibrated	3/29/2023

---

#### *Calibration Details*

---

Total Calibration Points	3
--------------------------	---

#### *Calibration Point 1*

---

pH of Buffer	4.00 pH
pH mV	125.1 mV
Temperature	21.12 °C

#### *Calibration Point 2*

---

pH of Buffer	7.02 pH
pH mV	-42.8 mV
Temperature	19.03 °C

#### *Calibration Point 3*

---

pH of Buffer	10.05 pH
pH mV	-213.0 mV
Temperature	19.46 °C

#### *Slope and Offset 1*

---

Slope	-55.59 mV/pH
Offset	-41.7 mV

#### *Slope and Offset 2*

---

Slope	-56.16 mV/pH
Offset	-41.7 mV

#### *ORP*

---

ORP Solution	Zobell's
Offset	43.8 mV
Temperature	20.27 °C



## Daily Instrument Calibration Log

SITE: Plant Branch  
 TECHNICIAN: A Schmittler  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377060

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTION/S:
 

ID: <u>pH4</u>	LOT #: <u>26H670</u>	EXP. DATE: <u>8/24</u>	
ID: <u>pH7</u>	LOT #: <u>16L340</u>	EXP. DATE: <u>12/23</u>	
ID: <u>pH10</u>	LOT #: <u>26H903</u>	EXP. DATE: <u>8/24</u>	
ID: <u>Cond</u>	LOT #: <u>26L642</u>	EXP. DATE: <u>9/23</u>	
ID: <u>ORP</u>	LOT #: <u>26L022</u>	EXP. DATE: <u>9/23</u>	<u>Midday pH check</u>
ID:	LOT #:	EXP. DATE:	<u>Must be less than .10</u>
ID:	LOT #:	EXP. DATE:	<u>(6.90-7.10 range)</u>

Midday pH check  
Must be less than .10  
(6.90-7.10 range)  
Recalibrate if not within range

Calibration Date: 3/29/23

RDO: 100% sat. = 100.55 Midday pH check  
 PH: 4.00 = 4.21      7.00 = 7.09      10.00 = 10.03      7.0 = 7.01  
 PH Recal (if needed): 4.00 = NA      7.00 = NA      10.00 = NA      7.0 = NA      post recal check  
 CONDUCTIVITY: 1413 = 1555.3  
 ORP (mV) 228 = 229.9

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_      post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_      post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_      post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_      post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



## Daily Instrument Calibration Log

SITE: Plant Branch  
TECHNICIAN: A Schmitt

INSTRUMENT S/N: Hach 2100Q  
INSTRUMENT TYPE: 17120C063167  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI water  
10 NTU - LOT # A1201R EXP. DATE: 7/23  
20 NTU - LOT # A2200 EXP. DATE: 1/23

Calibration Date: 3/29/23

Calibration Solution	Instrument Reading	
0.0	<u>0.21</u>	NTU
10.0	<u>9.01</u>	NTU
20.0	<u>22.0</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 5/8/2023

Sensor **RDO**

---

Serial Number 964485  
Last Calibrated 5/8/2023

## *Calibration Details*

---

Slope 1.039703  
Offset 0.00 mg/L

## *Calibration point 100%*

---

Concentration 6.53 mg/L  
Temperature 35.43 °C  
Barometric Pressure 1,003.5 mbar

Sensor **Conductivity**

---

Serial Number 965678  
Last Calibrated 5/8/2023

## *Calibration Details*

---

Cell Constant 0.87  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 965199  
Last Calibrated Factory Defaults

Sensor                      **pH/ORP**

---

Serial Number      21997  
Last Calibrated    5/8/2023

*Calibration Details*

---

Total Calibration Points      3

*Calibration Point 1*

---

pH of Buffer      4.02 pH  
pH mV            122.7 mV  
Temperature      32.79 °C

*Calibration Point 2*

---

pH of Buffer      6.99 pH  
pH mV            -44.5 mV  
Temperature      30.64 °C

*Calibration Point 3*

---

pH of Buffer      9.95 pH  
pH mV            -222.6 mV  
Temperature      31.00 °C

*Slope and Offset 1*

---

Slope            -56.3 mV/pH  
Offset            -45.1 mV

*Slope and Offset 2*

---

Slope            -60.15 mV/pH  
Offset            -45.1 mV

*ORP*

---

ORP Solution      Zobell's  
Offset              54.6 mV  
Temperature      28.78 °C

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 5/10/2023

Sensor **RDO**

---

Serial Number 964485  
Last Calibrated 5/10/2023

Calibration Details

Slope 0.9580788  
Offset 0.00 mg/L

Calibration point 100%

Concentration 7.59 mg/L  
Temperature 31.63 °C  
Barometric Pressure 1,006.4 mbar

Sensor **Conductivity**

---

Serial Number 965678  
Last Calibrated 5/10/2023

Calibration Details

Cell Constant 0.855  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 965199  
Last Calibrated Factory Defaults



Sensor	<b>pH/ORP</b>
Serial Number	21997
Last Calibrated	5/10/2023

---

*Calibration Details*

---

Total Calibration Points    3

*Calibration Point 1*

---

pH of Buffer    4.00 pH  
pH mV    106.7 mV  
Temperature    26.92 °C

*Calibration Point 2*

---

pH of Buffer    7.00 pH  
pH mV    -51.1 mV  
Temperature    27.15 °C

*Calibration Point 3*

---

pH of Buffer    10.00 pH  
pH mV    -221.4 mV  
Temperature    26.67 °C

*Slope and Offset 1*

---

Slope    -52.61 mV/pH  
Offset    -51.1 mV

*Slope and Offset 2*

---

Slope    -56.75 mV/pH  
Offset    -51.1 mV

*ORP*

---

ORP Solution    Zobell's  
Offset    58.8 mV  
Temperature    27.33 °C

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 5/11/2023

Sensor **RDO**  
Serial Number 964485  
Last Calibrated 5/11/2023

---

## *Calibration Details*

---

Slope 0.9898094  
Offset 0.00 mg/L

## *Calibration point 100%*

---

Concentration 9.18 mg/L  
Temperature 19.77 °C  
Barometric Pressure 1,008.4 mbar

Sensor **Conductivity**  
Serial Number 965678  
Last Calibrated 5/11/2023

---

## *Calibration Details*

---

Cell Constant 0.81  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**  
Serial Number 965199  
Last Calibrated Factory Defaults

---

Sensor	pH/ORP
Serial Number	21997
Last Calibrated	5/11/2023

---

*Calibration Details*

---

Total Calibration Points    3

*Calibration Point 1*

---

pH of Buffer	4.00 pH
pH mV	114.0 mV
Temperature	22.47 °C

*Calibration Point 2*

---

pH of Buffer	7.00 pH
pH mV	-51.4 mV
Temperature	23.75 °C

*Calibration Point 3*

---

pH of Buffer	10.00 pH
pH mV	-213.6 mV
Temperature	23.42 °C

*Slope and Offset 1*

---

Slope	-55.13 mV/pH
Offset	-51.4 mV

*Slope and Offset 2*

---

Slope	-54.06 mV/pH
Offset	-51.4 mV

*ORP*

---

ORP Solution	Zobell's
Offset	59.1 mV
Temperature	24.19 °C



### Daily Instrument Calibration Log

SITE: Branch APs  
 TECHNICIAN: A Schmittler  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377060

INSTRUMENT S/N: 965678  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/:

ID: <u>pH 4</u>	LOT #: <u>2606541</u>	EXP. DATE: <u>11/24</u>
ID: <u>pH 7</u>	LOT #: <u>167340</u>	EXP. DATE: <u>12/23</u>
ID: <u>pH 10</u>	LOT #: <u>260618</u>	EXP. DATE: <u>07/24</u>
ID: <u>Cond</u>	LOT #: <u>261642</u>	EXP. DATE: <u>09/23</u>
ID: <u>ORP</u>	LOT #: <u>261022</u>	EXP. DATE: <u>09/23</u>
ID: _____	LOT #: _____	EXP. DATE: _____
ID: _____	LOT #: _____	EXP. DATE: _____

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 5/8/23

RDO: 100% sat. = 103.91 Midday pH check  
 PH: 4.00 = 4.01 7.00 = 6.79 10.00 = 10.09 7.0 = 7.01  
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check  
 CONDUCTIVITY: 1413 = 1459.8  
 ORP (mV) 240 = 216.9

Calibration Date: 5/10/23

RDO: 100% sat. = 108.58 Midday pH check  
 PH: 4.00 = 4.31 7.00 = 7.03 10.00 = 9.91 7.0 = 7.00  
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check  
 CONDUCTIVITY: 1413 = 1438.4  
 ORP (mV) 226.1 = 222.1

Calibration Date: 5/11/23

RDO: 100% sat. = 97.00 Midday pH check  
 PH: 4.00 = 3.83 7.00 = 7.02 10.00 = 9.89 7.0 = 7.00  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1494.2  
 ORP (mV) 240 = 229.8

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



### Daily Instrument Calibration Log

SITE: Plant Branch APs  
TECHNICIAN: A Schmittner

INSTRUMENT S/N: 22080D001127  
INSTRUMENT TYPE: Hach 200A  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI water  
10 NTU - LOT # A2085 EXP. DATE: 07/23  
20 NTU - LOT # A2200 EXP. DATE: 11/23

Calibration Date: 5/8/23

Calibration Solution	Instrument Reading	
0.0	<u>0.14</u>	NTU
10.0	<u>10.1</u>	NTU
20.0	<u>20.0</u>	NTU

Calibration Date: 5/10/23

Calibration Solution	Instrument Reading	
0.0	<u>0.24</u>	NTU
10.0	<u>9.27</u>	NTU
20.0	<u>19.7</u>	NTU

Calibration Date: 5/11/23

Calibration Solution	Instrument Reading	
0.0	<u>0.16</u>	NTU
10.0	<u>9.26</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965658  
Created 5/17/2023

Sensor **RDO**

---

Serial Number 964434  
Last Calibrated 5/17/2023

## *Calibration Details*

---

Slope 1.079125  
Offset 0.00 mg/L

## *Calibration point 100%*

---

Concentration 7.85 mg/L  
Temperature 22.81 °C  
Barometric Pressure 997.54 mbar

Sensor **Conductivity**

---

Serial Number 965658  
Last Calibrated 5/17/2023

## *Calibration Details*

---

Cell Constant 0.881  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 962246  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
Serial Number	22007
Last Calibrated	5/17/2023

---

#### *Calibration Details*

---

Total Calibration Points	3
--------------------------	---

#### *Calibration Point 1*

---

pH of Buffer	4.00 pH
pH mV	105.2 mV
Temperature	22.64 °C

#### *Calibration Point 2*

---

pH of Buffer	7.02 pH
pH mV	-63.8 mV
Temperature	22.18 °C

#### *Calibration Point 3*

---

pH of Buffer	10.05 pH
pH mV	-226.2 mV
Temperature	22.25 °C

#### *Slope and Offset 1*

---

Slope	-55.94 mV/pH
Offset	-62.6 mV

#### *Slope and Offset 2*

---

Slope	-53.62 mV/pH
Offset	-62.7 mV

#### *ORP*

---

ORP Solution	Zobell's
Offset	75.6 mV
Temperature	22.18 °C

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965658  
Created 5/18/2023

Sensor **RDO**

---

Serial Number 964434  
Last Calibrated 5/18/2023

## *Calibration Details*

---

Slope 1.070943  
Offset 0.00 mg/L

## *Calibration point 100%*

---

Concentration 8.58 mg/L  
Temperature 18.88 °C  
Barometric Pressure 1,002.0 mbar

Sensor **Conductivity**

---

Serial Number 965658  
Last Calibrated 5/18/2023

## *Calibration Details*

---

Cell Constant 0.856  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 962246  
Last Calibrated Factory Defaults



Sensor	<b>pH/ORP</b>
Serial Number	22007
Last Calibrated	5/18/2023

---

#### *Calibration Details*

---

Total Calibration Points	3
--------------------------	---

#### *Calibration Point 1*

---

pH of Buffer	4.00 pH
pH mV	104.9 mV
Temperature	20.01 °C

#### *Calibration Point 2*

---

pH of Buffer	7.02 pH
pH mV	-63.2 mV
Temperature	20.61 °C

#### *Calibration Point 3*

---

pH of Buffer	10.05 pH
pH mV	-225.8 mV
Temperature	20.41 °C

#### *Slope and Offset 1*

---

Slope	-55.67 mV/pH
Offset	-62.1 mV

#### *Slope and Offset 2*

---

Slope	-53.66 mV/pH
Offset	-62.1 mV

#### *ORP*

---

ORP Solution	Zobell's
Offset	73.2 mV
Temperature	20.86 °C



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: \_\_\_\_\_ J. Borwick \_\_\_\_\_  
 WATER LEVEL: \_\_\_\_\_ Solist \_\_\_\_\_  
 WATER LEVEL S/N: \_\_\_\_\_ 267304 \_\_\_\_\_

INSTRUMENT S/N: \_\_\_\_\_ 965658 \_\_\_\_\_  
 INSTRUMENT TYPE: AquaTroll \_\_\_\_\_  
 CAL. SOLUTIONS/ID: 744 LOT #: 264670 EXP. DATE: 2/24  
 ID: pH7 LOT #: 261301 EXP. DATE: 9/24  
 ID: pH10 LOT #: 266018 EXP. DATE: 7/24  
 ID: Cond LOT #: 261676 EXP. DATE: 11/23  
 ID: ORP LOT #: 363146 EXP. DATE: 11/23

**Midday pH check**  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 5/22/23  
 RDO: 100% sat. = 94.1  
 PH: 4.00 = 3.87      7.00 = 6.99      10.00 = 9.97  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = 7.02  
 CONDUCTIVITY: 1413 = 1425  
 ORP (mV) 240 = 230

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =      7.0 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =      7.0 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =      7.0 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_  
 PH: 4.00 =      7.00 =      10.00 =      7.0 =  
 PH Recal (if needed): 4.00 =      7.00 =      10.00 =      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: J. Bensford

INSTRUMENT S/N: 22080D001177  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # PI 420 EXP. DATE: 1/18  
10 NTU - LOT # A2085 EXP. DATE: 7/23  
20 NTU - LOT # A2200 EXP. DATE: 11/23

Calibration Date: 5/22/23

Calibration Solution	Instrument Reading	
0.0	<u>0.44</u>	NTU
10.0	<u>9.26</u>	NTU
20.0	<u>17.8</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965658  
Created 5/30/2023

Sensor **RDO**

---

Serial Number 964434  
Last Calibrated 5/30/2023

*Calibration Details*

Slope 1.025484  
Offset 0.00 mg/L

*Calibration point 100%*

Concentration 7.49 mg/L  
Temperature 28.41 °C  
Barometric Pressure 1,001.4 mbar

Sensor **Conductivity**

---

Serial Number 965658  
Last Calibrated 5/30/2023

*Calibration Details*

Cell Constant 0.858  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 962246  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
Serial Number	22007
Last Calibrated	5/30/2023

---

*Calibration Details*

---

Total Calibration Points 3

*Calibration Point 1*

---

pH of Buffer 4.00 pH  
pH mV 107.0 mV  
Temperature 26.62 °C

*Calibration Point 2*

---

pH of Buffer 7.00 pH  
pH mV -64.2 mV  
Temperature 25.06 °C

*Calibration Point 3*

---

pH of Buffer 10.00 pH  
pH mV -229.3 mV  
Temperature 25.63 °C

*Slope and Offset 1*

---

Slope -57.08 mV/pH  
Offset -64.2 mV

*Slope and Offset 2*

---

Slope -55.04 mV/pH  
Offset -64.2 mV

*ORP*

---

ORP Solution Zobell's  
Offset 76.9 mV  
Temperature 21.64 °C

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965658  
Created 5/31/2023

Sensor **RDO**

---

Serial Number 964434  
Last Calibrated 5/31/2023

*Calibration Details*

Slope 1.012375  
Offset 0.00 mg/L

*Calibration point 100%*

Concentration 8.91 mg/L  
Temperature 19.66 °C  
Barometric Pressure 1,005.5 mbar

Sensor **Conductivity**

---

Serial Number 965658  
Last Calibrated 5/31/2023

*Calibration Details*

Cell Constant 0.841  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 962246  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
Serial Number	22007
Last Calibrated	5/31/2023

---

*Calibration Details*

---

Total Calibration Points    3

*Calibration Point 1*

---

pH of Buffer      4.00 pH  
pH mV            103.5 mV  
Temperature      20.11 °C

*Calibration Point 2*

---

pH of Buffer      7.02 pH  
pH mV            -66.3 mV  
Temperature      20.42 °C

*Calibration Point 3*

---

pH of Buffer      10.05 pH  
pH mV            -229.3 mV  
Temperature      20.34 °C

*Slope and Offset 1*

---

Slope            -56.23 mV/pH  
Offset            -65.2 mV

*Slope and Offset 2*

---

Slope            -53.77 mV/pH  
Offset            -65.3 mV

*ORP*

---

ORP Solution    Zobell's  
Offset            84.6 mV  
Temperature      21.03 °C



### Daily Instrument Calibration Log

SITE: Plant Branch  
 TECHNICIAN: A Schnittker  
 WATER LEVEL: Solinst  
 WATER LEVEL S/N: 377660

INSTRUMENT S/N: 965658  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/ID: PH 4 LOT #: 262541 EXP. DATE: 11/24  
PH 7 LOT #: 261304 EXP. DATE: 09/24  
PH 10 LOT #: 268707 EXP. DATE: 02/24  
Cond LOT #: 26E994 EXP. DATE: 05/23  
ORP LOT #: 26L022 EXP. DATE: 09/23

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 5/30/23

RDO: 100% sat. = 105.27 Midday pH check  
 PH: 4.00 = 4.12 7.00 = 7.05 10.00 = 10.11 7.0 = 6.99  
 PH Recal (if needed): 4.00 = NA 7.00 = NA 10.00 = NA 7.0 = NA post recal check  
 CONDUCTIVITY: 1413 = 1312  
 ORP (mV) 240 = 229.3

Calibration Date: 5/31

RDO: 100% sat. = 101.26 Midday pH check  
 PH: 4.00 = 4.03 7.00 = 7.06 10.00 = 10.06 7.0 = 7.01  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1444.4  
 ORP (mV) 240 = 226.5

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =

Calibration Date:

RDO: 100% sat. = Midday pH check  
 PH: 4.00 = 7.00 = 10.00 = 7.0 =  
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check  
 CONDUCTIVITY: =  
 ORP (mV) =





### Daily Instrument Calibration Log

SITE: Plant Branch  
TECHNICIAN: A Schmittker

INSTRUMENT S/N: 22080D001127  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: Fresh DI Water  
10 NTU - LOT # A2085 EXP. DATE: 07/23  
20 NTU - LOT # A2200 EXP. DATE: 11/23

Calibration Date: 5/30/23

Calibration Solution	Instrument Reading	
0.0	<u>0.40</u>	NTU
10.0	<u>9.23</u>	NTU
20.0	<u>20.2</u>	NTU

Calibration Date: 5/31/23

Calibration Solution	Instrument Reading	
0.0	<u>0.44</u>	NTU
10.0	<u>9.51</u>	NTU
20.0	<u>20.8</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 5/30/2023

Sensor **RDO**

---

Serial Number 964485  
Last Calibrated 5/30/2023

*Calibration Details*

Slope 1.047212  
Offset 0.00 mg/L

*Calibration point 100%*

Concentration 8.04 mg/L  
Temperature 23.43 °C  
Barometric Pressure 1,002.7 mbar

Sensor **Conductivity**

---

Serial Number 965678  
Last Calibrated 5/30/2023

*Calibration Details*

Cell Constant 0.792  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 965199  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
Serial Number	21997
Last Calibrated	5/30/2023

---

*Calibration Details*

Total Calibration Points 3

*Calibration Point 1*

pH of Buffer 4.00 pH  
pH mV 111.8 mV  
Temperature 22.89 °C

*Calibration Point 2*

pH of Buffer 7.00 pH  
pH mV -57.9 mV  
Temperature 22.67 °C

*Calibration Point 3*

pH of Buffer 10.00 pH  
pH mV -214.3 mV  
Temperature 22.69 °C

*Slope and Offset 1*

Slope -56.59 mV/pH  
Offset -57.9 mV

*Slope and Offset 2*

Slope -52.11 mV/pH  
Offset -57.9 mV

*ORP*

ORP Solution Zobell's  
Offset 74.6 mV  
Temperature 22.45 °C

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 5/31/2023

Sensor **RDO**

---

Serial Number 964485  
Last Calibrated 5/31/2023

*Calibration Details*

Slope 1.092616  
Offset 0.00 mg/L

*Calibration point 100%*

Concentration 8.03 mg/L  
Temperature 21.40 °C  
Barometric Pressure 1,005.8 mbar

Sensor **Conductivity**

---

Serial Number 965678  
Last Calibrated 5/31/2023

*Calibration Details*

Cell Constant 0.79  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 965199  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
Serial Number	21997
Last Calibrated	5/31/2023

---

*Calibration Details*

---

Total Calibration Points 3

*Calibration Point 1*

---

pH of Buffer	4.00 pH
pH mV	99.9 mV
Temperature	21.66 °C

*Calibration Point 2*

---

pH of Buffer	7.02 pH
pH mV	-62.8 mV
Temperature	22.43 °C

*Calibration Point 3*

---

pH of Buffer	10.05 pH
pH mV	-221.9 mV
Temperature	22.21 °C

*Slope and Offset 1*

---

Slope	-53.88 mV/pH
Offset	-61.7 mV

*Slope and Offset 2*

---

Slope	-52.53 mV/pH
Offset	-61.7 mV

*ORP*

---

ORP Solution	Zobell's
Offset	78.6 mV
Temperature	22.53 °C



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: J. Borsari  
 WATER LEVEL: \_\_\_\_\_  
 WATER LEVEL S/N: 267209

INSTRUMENT S/N: 965678  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS/ID: pH 4 LOT #: 261670 EXP. DATE: 8/24  
pH 7 LOT #: 261304 EXP. DATE: 9/24  
pH 10 LOT #: 266078 EXP. DATE: 7/24  
CO2 LOT #: 261686 EXP. DATE: 11/23  
022 LOT #: 368186 EXP. DATE: 11/23

**Midday pH check**  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

### Calibration Date: 5/30/23

RDO: 100% sat. = 94.5 **Midday pH check**  
 PH: 4.00 = 4.04 7.00 = 7.13 10.00 = 10.02 7.0 = 7.04  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = # 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1376  
 ORP (mV) 240 = 216.4

### Calibration Date: 5/31/23

RDO: 100% sat. = 95.2 **Midday pH check**  
 PH: 4.00 = 4.21 7.00 = 7.10 10.00 = 10.15 7.0 = 7.03  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1346  
 ORP (mV) 240 = 228.1

### Calibration Date: 6/1/23

RDO: 100% sat. = 92.5 **Midday pH check**  
 PH: 4.00 = 3.95 7.00 = 7.05 10.00 = 9.48 7.0 = 7.07  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: 1413 = 1628  
 ORP (mV) 240 = 247.7

### Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

### Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ **Midday pH check**  
 PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_ 7.0 = \_\_\_\_\_ post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: \_\_\_\_\_ J. B. [Signature]

INSTRUMENT S/N: \_\_\_\_\_ 22070D000803 \_\_\_\_\_  
INSTRUMENT TYPE: Hach 2100Q \_\_\_\_\_  
CAL. SOLUTION: 0 NTU - LOT # N/A EXP. DATE: DI H<sub>2</sub>O \_\_\_\_\_  
10 NTU - LOT # A2085 EXP. DATE: 7/23 \_\_\_\_\_  
20 NTU - LOT # A2200 EXP. DATE: 11/23 \_\_\_\_\_

Calibration Date: 5/30/23

Calibration Solution	Instrument Reading	
0.0	0.37	NTU
10.0	9.74	NTU
20.0	20.2	NTU

Calibration Date: 5/31/23

Calibration Solution	Instrument Reading	
0.0	0.30	NTU
10.0	9.88	NTU
20.0	19.7	NTU

Calibration Date: 6/1/23

Calibration Solution	Instrument Reading	
0.0	0.42	NTU
10.0	9.91	NTU
20.0	20.1	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 6/5/2023

Sensor **RDO**

---

Serial Number 964485  
Last Calibrated 6/5/2023

*Calibration Details*

---

Slope 1.06509  
Offset 0.00 mg/L

*Calibration point 100%*

---

Concentration 8.53 mg/L  
Temperature 19.54 °C  
Barometric Pressure 1,004.0 mbar

Sensor **Conductivity**

---

Serial Number 965678  
Last Calibrated 6/5/2023

*Calibration Details*

---

Cell Constant 0.763  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 965199  
Last Calibrated Factory Defaults



Sensor	<b>pH/ORP</b>
Serial Number	21997
Last Calibrated	6/5/2023

---

*Calibration Details*

Total Calibration Points 3

*Calibration Point 1*

pH of Buffer 4.00 pH  
pH mV 105.2 mV  
Temperature 21.06 °C

*Calibration Point 2*

pH of Buffer 7.02 pH  
pH mV -61.8 mV  
Temperature 21.11 °C

*Calibration Point 3*

pH of Buffer 10.05 pH  
pH mV -206.3 mV  
Temperature 21.03 °C

*Slope and Offset 1*

Slope -55.3 mV/pH  
Offset -60.7 mV

*Slope and Offset 2*

Slope -47.71 mV/pH  
Offset -60.8 mV

*ORP*

ORP Solution Zobell's  
Offset 83.8 mV  
Temperature 21.00 °C

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 965678  
Created 6/6/2023

Sensor **RDO**

---

Serial Number 964485  
Last Calibrated 6/6/2023

*Calibration Details*

---

Slope 1.058586  
Offset 0.00 mg/L

*Calibration point 100%*

---

Concentration 8.16 mg/L  
Temperature 22.00 °C  
Barometric Pressure 1,002.0 mbar

Sensor **Conductivity**

---

Serial Number 965678  
Last Calibrated 6/6/2023

*Calibration Details*

---

Cell Constant 0.75  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 965199  
Last Calibrated Factory Defaults

Sensor	<b>pH/ORP</b>
Serial Number	21997
Last Calibrated	6/6/2023

---

*Calibration Details*

Total Calibration Points 3

*Calibration Point 1*

pH of Buffer 4.00 pH  
pH mV 102.7 mV  
Temperature 21.33 °C

*Calibration Point 2*

pH of Buffer 7.02 pH  
pH mV -65.4 mV  
Temperature 20.84 °C

*Calibration Point 3*

pH of Buffer 10.05 pH  
pH mV -207.1 mV  
Temperature 20.93 °C

*Slope and Offset 1*

Slope -55.66 mV/pH  
Offset -64.3 mV

*Slope and Offset 2*

Slope -46.77 mV/pH  
Offset -64.5 mV

*ORP*

ORP Solution Zobell's  
Offset 90.1 mV  
Temperature 20.74 °C



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: J. Bonifant  
 WATER LEVEL: Solent  
 WATER LEVEL S/N: 267304

INSTRUMENT S/N: 965678  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:

ID: <u>pH 4</u>	LOT #: <u>2611670</u>	EXP. DATE: <u>2/24</u>
ID: <u>pH 7</u>	LOT #: <u>267304</u>	EXP. DATE: <u>9/24</u>
ID: <u>pH 10</u>	LOT #: <u>266019</u>	EXP. DATE: <u>7/24</u>
ID: <u>CoCl</u>	LOT #: <u>2611686</u>	EXP. DATE: <u>11/23</u>
ID: <u>ORP</u>	LOT #: <u>363196</u>	EXP. DATE: <u>11/23</u>
ID: _____	LOT #: _____	EXP. DATE: _____
ID: _____	LOT #: _____	EXP. DATE: _____

Midday pH check  
 Must be less than .10  
 (6.90-7.10 range)  
 Recalibrate if not within range

Calibration Date: 6/5/23

RDO: 100% sat. = 101.2 Midday pH check  
 PH: 4.00 = 393      7.00 = 6.99      10.00 = 9.78      7.0 = 7.01  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1321  
 ORP (mV) 240 = 223.4

Calibration Date: 6/6/23

RDO: 100% sat. = 100.2 Midday pH check  
 PH: 4.00 = 4.05      7.00 = 7.00      10.00 = 10.05      7.0 = 6.99  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = post recal check  
 CONDUCTIVITY: 1413 = 1329  
 ORP (mV) 240 = 228.1

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_ Midday pH check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = post recal check  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_ = \_\_\_\_\_



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: \_\_\_\_\_ J. B. [Signature]  
INSTRUMENT S/N: \_\_\_\_\_ 220801000803  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # DI 14.0 EXP. DATE: N/A  
10 NTU - LOT # 12085 EXP. DATE: 7/23  
20 NTU - LOT # 12200 EXP. DATE: 11/23

Calibration Date: 6/5/23

Calibration Solution	Instrument Reading	
0.0	0.44	NTU
10.0	9.29	NTU
20.0	20.4	NTU

Calibration Date: 6/6/23

Calibration Solution	Instrument Reading	
0.0	0.45	NTU
10.0	9.47	NTU
20.0	20.2	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

# Calibration Report

Instrument Aqua TROLL 400  
Serial Number 714302  
Created 7/5/2023

Sensor **RDO**

---

Serial Number 879679  
Last Calibrated 7/5/2023

## *Calibration Details*

---

Slope 1.108127  
Offset 0.00 mg/L

## *Calibration point 100%*

---

Concentration 6.72 mg/L  
Temperature 30.42 °C  
Barometric Pressure 1,005.5 mbar

Sensor **Conductivity**

---

Serial Number 714302  
Last Calibrated 7/5/2023

## *Calibration Details*

---

Cell Constant 1.001  
Reference Temperature 25.00 °C  
TDS Conversion Factor (ppm) 0.65

Sensor **Level**

---

Serial Number 712532  
Last Calibrated Factory Defaults

Sensor                      **pH/ORP**

---

Serial Number      21475  
Last Calibrated    7/5/2023

*Calibration Details*

---

Total Calibration Points      1

*Calibration Point 1*

---

pH of Buffer      6.99 pH  
pH mV            -144.2 mV  
Temperature      29.48 °C

*Slope and Offset 1*

---

Slope            -60.05 mV/pH  
Offset           -144.8 mV

*ORP*

---

ORP Solution      Quick Cal  
Offset              0.0 mV  
Temperature      25.00 °C



# Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
TECHNICIAN: D. JOHNSON

INSTRUMENT S/N: 22080D000803  
INSTRUMENT TYPE: Hach 2100Q  
CAL. SOLUTION: 0 NTU - LOT # — EXP. DATE: — NEW D.F.  
10 NTU - LOT # A2085 EXP. DATE: NOV-23  
20 NTU - LOT # A2200 EXP. DATE: SEPT-23

Calibration Date: 7/5/23

Calibration Solution	Instrument Reading	
0.0	<u>0.44</u>	NTU
10.0	<u>9.08</u>	NTU
20.0	<u>20.5</u>	NTU

Calibration Date: 7/6/23

Calibration Solution	Instrument Reading	
0.0	<del>0.63</del> <u>0.40</u>	NTU
10.0	<u>9.21</u>	NTU
20.0	<u>20.0</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU





## Daily Instrument Calibration Log

SITE: \_\_\_\_\_ Plant Branch \_\_\_\_\_  
 TECHNICIAN: D. JOHNSON  
 WATER LEVEL: SOLWIST  
 WATER LEVEL S/N: 530 984

INSTRUMENT S/N: 714302  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTION/S: ID: ORP LOT #: 262022 EXP. DATE: SEP. 2023  
ID: Cond. LOT #: 262642 EXP. DATE: SEP. 2023  
ID: PH10 LOT #: 266018 EXP. DATE: 07/2024  
ID: PH7 LOT #: 261304 EXP. DATE: 09/2024  
ID: PH4 LOT #: 268807 EXP. DATE: 05/2024

Midday pH check

Must be less than .10

(6.90-7.10 range)

Recalibrate if not within range

Calibration Date: 7/5/2023

RDO: 100% sat. = 93.70

PH: 4.00 = 4.08 7.00 = 6.85 10.00 = 9.67

PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

CONDUCTIVITY: 1413 = 1243

ORP (mV) 240 = 238

Midday pH check

7.0 = F. at Norm

7.0 = post recal check

Calibration Date: 7/4/2023

RDO: 100% sat. = 111.39

PH: 4.00 = 4.39 7.00 = 7.00 10.00 = 9.88

PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

CONDUCTIVITY: 1413 = 1526

ORP (mV) 240 = 70.6

Midday pH check

7.0 = 7.02

7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_

PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_

ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check

7.0 =

7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_

PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_

ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check

7.0 =

7.0 = post recal check

Calibration Date:

RDO: 100% sat. = \_\_\_\_\_

PH: 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

PH Recal (if needed): 4.00 = \_\_\_\_\_ 7.00 = \_\_\_\_\_ 10.00 = \_\_\_\_\_

CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_

ORP (mV) \_\_\_\_\_ = \_\_\_\_\_

Midday pH check

7.0 =

7.0 = post recal check

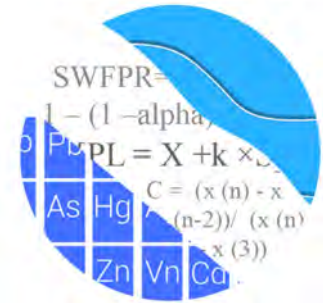
# APPENDIX D

## Statistical Analyses: August 2022 and January 2023

## GROUNDWATER STATS CONSULTING

February 28, 2023

Southern Company Services  
Attn: Mr. Joju Abraham  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308-3374



Re: Plant Branch Ponds B, C, D – August/September 2022 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting (GSC), formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August/September 2022 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical Analysis of groundwater data for Georgia Power Company's Plant Branch Ponds B, C, and D. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009). The site is in Assessment Monitoring.

Sampling began for Appendix III and IV parameters in 2016 for most wells. However, sampling for wells BRGWC-45, BRGWC-47, BRGWC-50 and BRGWC-52I began in 2018, and at least 8 background samples have been collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** BRGWA-2I, BRGWA-2S, BRGWA-5I, BRGWA-5S, BRGWA-6S, BRGWA-12I, BRGWA-12S, and BRGWA-23S
- **Downgradient wells:** BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I
- **Assessment wells:** PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I, PZ-58I, PZ-59I, PZ-60I, PZ-61I, PZ-62I, and PZ-63I

Data from assessment wells are evaluated using confidence intervals when a minimum of 4 samples are available.

Data were sent electronically to GSC, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to GSC.

The Coal Combustion Residuals (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 well/constituent pairs with 100% non-detects follows this letter. A substitution of the most recent reporting limit is used for non-detect data. Note that Minimum Detectable Concentrations (MDCs) were not provided for the September 2022 sample event for combined radium 226 + 228 observations at the time of this report.

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). Assessment well data are included on the time series graphs, and with the confidence intervals when a minimum of 4 samples are available as discussed above. 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. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows 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 site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

## Summary of Statistical Methods – Appendix III Parameters:

Based on the earlier evaluation described above, the following method was selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, 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 false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent 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 (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- 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 most 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 interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect 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.

## **Summary of Background Screening – Conducted in March 2019**

### Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified either visually or by Tukey's test, flagged in the computer database with "o" and deselected prior to construction of statistical limits. A list of flagged values is provided in the outlier summary. Although outliers are screened for all wells, only outliers in upgradient wells will affect the interwell prediction limits. The current list of outliers includes a few additional measurements that were not flagged as outliers in the previous background screening list for Appendix III parameters.

When suspected outliers were evaluated using the Tukey box plot method during the previous screening, several outliers were identified. In cases where the most recent value was identified as an outlier, values were not flagged in the database as they may represent a future trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. Note that the reporting limit for boron during the March 2019 event was 0.1 mg/L; however, the historical reporting limit of 0.04 mg/L was substituted at that time for all non-detects which provided more conservative (lower) statistical limits.

### Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits



will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

### Trend Tests

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses, included with the background screening report, showed a number of statistically significant decreasing trends for the Appendix III parameters. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets.

### Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified no variation among upgradient well data for fluoride, making this constituent eligible for interwell analyses. Variation was noted for boron, calcium, chloride, pH, sulfate, and TDS. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

## Evaluation of Appendix III Parameters – August/September 2022

### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2022 (Figure D). Background (upgradient) well data were re-assessed for potential outliers during this analysis and no new values were flagged. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August/September 2022 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

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 resamples confirm the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Prediction limit exceedances were noted for several Appendix III parameters. Exceedances were identified for the following well/constituent pairs:

- Boron: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50, and BRGWC-52I
- Calcium: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I
- Chloride: BRGWC-29I, BRGWC-45, BRGWC-50, and BRGWC-52I
- Fluoride: BRGWC-50
- pH (lower limit): BRGWC-29I and BRGWC-50
- Sulfate: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I
- TDS: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, and BRGWC-50



## Trend Test Evaluation – Appendix III

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 E). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. While several statistically significant decreasing trends were noted in both upgradient and downgradient wells, statistically significant increasing trends were identified for the following well/constituent pairs:

- Calcium: BRGWA-6S (upgradient) and BRGWC-30I
- Fluoride: BRGWA-12S (upgradient)
- Sulfate: BRGWC-30I
- TDS: BRGWC-30I

## **Evaluation of Appendix IV Parameters – August/September 2022**

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

## Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through September 2022 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

## Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium,

and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

#### Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well with detections (Figure H). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified.

Statistical exceedances were identified for the following well/constituent pairs:

- Cadmium: BRGWC-50
- Cobalt: BRGWC-50 and PZ-511
- Selenium: BRGWC-32S

Although no confidence exceedance was identified for selenium at downgradient well BRGWC-32S when evaluating the entire record of data, a steady increasing trend in concentrations since 2019 was noted. Therefore, an additional confidence interval is provided which evaluates data since 2019, and the confidence interval was found to exceed its respective GWPS of 0.05 mg/L.

## Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. The following statistically significant trends were identified:

### Increasing

- Selenium: BRGWC-32S

### Decreasing

- Cadmium: BRGWC-50
- Cobalt: BRGWA-2S (upgradient)

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Branch Ponds B, C, D. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew T. Collins  
Project Manager



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# 100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 11/4/2022 3:58 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

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Antimony (mg/L)

BRGWC-25I, BRGWC-27I, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-63I, PZ-62I

Arsenic (mg/L)

PZ-57I, PZ-63I, PZ-62I

Beryllium (mg/L)

BRGWC-25I, BRGWC-30I, BRGWC-32S, BRGWC-52I, PZ-51D, PZ-51S, PZ-63I

Cadmium (mg/L)

BRGWC-25I, BRGWC-29I, BRGWC-52I, PZ-50D, PZ-51D, PZ-51S, PZ-63I

Chromium (mg/L)

PZ-50D, PZ-51D, PZ-57I, PZ-58I, PZ-60I, PZ-63I, PZ-62I

Lead (mg/L)

BRGWC-32S, PZ-51S, PZ-57I, PZ-60I, PZ-59I, PZ-63I, PZ-62I

Lithium (mg/L)

BRGWC-25I

Mercury (mg/L)

BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I, PZ-50D, PZ-51D, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-63I, PZ-62I

Molybdenum (mg/L)

BRGWC-27I, BRGWC-29I, BRGWC-32S, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I

Selenium (mg/L)

BRGWC-52I, PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I, PZ-63I, PZ-62I

Thallium (mg/L)

BRGWC-25I, BRGWC-27I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I, PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-63I, PZ-62I

# Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:39 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)	BRGWC-25I	0.068	n/a	8/23/2022	1.38	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	8/25/2022	1.03	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	8/24/2022	1.13	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	8/24/2022	2.15	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	8/25/2022	1.07	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	8/23/2022	0.547	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	8/24/2022	0.406	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	8/25/2022	1.56	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	8/23/2022	51.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	8/25/2022	64	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	8/24/2022	61	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	8/24/2022	316	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	8/25/2022	48.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	8/25/2022	33.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	8/23/2022	323	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	8/24/2022	215	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	8/25/2022	38.3	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	8/24/2022	5.84	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	8/25/2022	14.9	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	8/24/2022	15.8	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	8/25/2022	6.27	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	8/24/2022	0.497	Yes	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.04	5.588	8/24/2022	4.39	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.04	5.588	8/24/2022	5.01	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	8/23/2022	158	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	8/25/2022	176	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	8/24/2022	298	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	8/24/2022	935	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	8/25/2022	254	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	8/25/2022	114	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	8/23/2022	1410	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	8/24/2022	1400	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	8/25/2022	142	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	299	n/a	8/23/2022	315	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	299	n/a	8/25/2022	311	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	8/24/2022	383	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	8/24/2022	1540	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	8/25/2022	437	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	8/23/2022	2060	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	8/24/2022	1990	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:39 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)	BRGWC-25I	0.068	n/a	8/23/2022	1.38	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	8/25/2022	1.03	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	8/24/2022	1.13	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	8/24/2022	2.15	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	8/25/2022	1.07	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-45	0.068	n/a	8/25/2022	0.0458	No	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	8/23/2022	0.547	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	8/24/2022	0.406	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	8/25/2022	1.56	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	8/23/2022	51.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	8/25/2022	64	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	8/24/2022	61	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	8/24/2022	316	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	8/25/2022	48.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	8/25/2022	33.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	8/23/2022	323	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	8/24/2022	215	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	8/25/2022	38.3	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	8/23/2022	5.38	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-27I	5.8	n/a	8/25/2022	4.65	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	8/24/2022	5.84	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-30I	5.8	n/a	8/24/2022	4.91	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-32S	5.8	n/a	8/25/2022	3.96	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	8/25/2022	14.9	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-47	5.8	n/a	8/23/2022	4.49	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	8/24/2022	15.8	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	8/25/2022	6.27	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-25I	0.42	n/a	8/23/2022	0.186	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-27I	0.42	n/a	8/25/2022	0.234	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-29I	0.42	n/a	8/24/2022	0.103	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-30I	0.42	n/a	8/24/2022	0.318	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-32S	0.42	n/a	8/25/2022	0.138	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-45	0.42	n/a	8/25/2022	0.166	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-47	0.42	n/a	8/23/2022	0.1ND	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	8/24/2022	0.497	Yes	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-52I	0.42	n/a	8/25/2022	0.157	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-25I	7.04	5.588	8/23/2022	6.11	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-27I	7.04	5.588	8/25/2022	6.03	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.04	5.588	8/24/2022	4.39	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-30I	7.04	5.588	8/24/2022	6.38	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-32S	7.04	5.588	8/25/2022	6.06	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-45	7.04	5.588	8/25/2022	5.74	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-47	7.04	5.588	8/23/2022	5.61	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.04	5.588	8/24/2022	5.01	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-52I	7.04	5.588	8/25/2022	6.21	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	8/23/2022	158	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	8/25/2022	176	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	8/24/2022	298	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	8/24/2022	935	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	8/25/2022	254	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	8/25/2022	114	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	8/23/2022	1410	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	8/24/2022	1400	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	8/25/2022	142	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:39 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	BRGWC-25I	299	n/a	8/23/2022	315	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	299	n/a	8/25/2022	311	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	8/24/2022	383	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	8/24/2022	1540	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	8/25/2022	437	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	299	n/a	8/25/2022	248	No	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	8/23/2022	2060	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	8/24/2022	1990	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	299	n/a	8/25/2022	296	No	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-271	-0.1256	-73	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-291	-0.1312	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-23S (bg)	-1.083	-59	-58	Yes	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1657	69	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-25I	-4.85	-88	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-271	-3.929	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-30I	23.17	97	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-45	-2.344	-67	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-12I (bg)	-0.2039	-88	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-23S (bg)	-0.1807	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2006	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-45	-8.907	-78	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-50	-2.087	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-52I	-0.3801	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-12S (bg)	0.006411	71	68	Yes	18	66.67	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-23S (bg)	-0.04537	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1019	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.0368	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05383	-81	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12I (bg)	-0.2311	-105	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12S (bg)	-0.1348	-81	-63	Yes	17	17.65	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-25I	-35.25	-81	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-271	-22.5	-90	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-291	-32.54	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-30I	43.71	60	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-32S	-35.7	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.658	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-25I	-46.21	-96	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-271	-26.31	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-291	-63.47	-63	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-30I	99.28	74	58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-32S	-48.29	-81	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-50	-115.9	-68	-58	Yes	16	0	n/a	n/a	0.01	NP



# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-12I (bg)	-0.0002161	-11	-58	No	16	18.75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-12S (bg)	0	8	58	No	16	81.25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-23S (bg)	0.001638	21	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2I (bg)	0.001506	18	58	No	16	25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-3	-58	No	16	87.5	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-6	-58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-8	-58	No	16	56.25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	2	58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-25I	-0.09624	-49	-58	No	16	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-27I</b>	<b>-0.1256</b>	<b>-73</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>BRGWC-29I</b>	<b>-0.1312</b>	<b>-67</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-30I	0.006741	14	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-32S	-0.05023	-39	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-47	0.0244	42	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-50	0.004693	15	58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-52I	0.01634	16	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12I (bg)	-0.01457	-1	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12S (bg)	0.1808	27	63	No	17	5.882	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-1.083</b>	<b>-59</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>6.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWA-2I (bg)	0.5425	43	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.073	30	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.03321	5	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.5076	-36	-58	No	16	6.25	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-6S (bg)</b>	<b>0.1657</b>	<b>69</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BRGWC-25I</b>	<b>-4.85</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BRGWC-27I</b>	<b>-3.929</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-29I	-6.709	-54	-58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-30I</b>	<b>23.17</b>	<b>97</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-32S	-4.259	-54	-58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-45</b>	<b>-2.344</b>	<b>-67</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-47	0.1986	3	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-50	-7.514	-42	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-52I	0.4585	11	53	No	15	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2039</b>	<b>-88</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-12S (bg)	0.05355	39	63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.1807</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-2I (bg)	-0.04825	-38	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	-0.02501	-21	-58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-5I (bg)</b>	<b>-0.2006</b>	<b>-67</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-5S (bg)	-0.07499	-48	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.01997	-21	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-29I	-0.1991	-46	-58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWC-45</b>	<b>-8.907</b>	<b>-78</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-50</b>	<b>-2.087</b>	<b>-78</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-52I</b>	<b>-0.3801</b>	<b>-70</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	BRGWA-12I (bg)	-0.01195	-45	-68	No	18	22.22	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>0.006411</b>	<b>71</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>66.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	BRGWA-23S (bg)	0	-10	-68	No	18	55.56	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-17	-68	No	18	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	49	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	54	68	No	18	72.22	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	-20	-68	No	18	38.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0	55	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-50	-0.07419	-28	-68	No	18	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH, Field (S.U.)	BRGWA-12I (bg)	-0.03267	-43	-81	No	20	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12S (bg)	-0.02298	-48	-74	No	19	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.04537</b>	<b>-79</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.1019</b>	<b>-79</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.0368</b>	<b>-71</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02765	-47	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-5S (bg)</b>	<b>-0.05383</b>	<b>-81</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U.)	BRGWA-6S (bg)	0	0	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-29I	-0.01622	-18	-68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-50	-0.05165	-47	-74	No	19	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2311</b>	<b>-105</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>-0.1348</b>	<b>-81</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>17.65</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWA-23S (bg)	-5.093	-42	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.1382	-32	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	-0.00315	-15	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.3159	-48	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.07263	-52	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.01229	-34	-58	No	16	25	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-25I</b>	<b>-35.25</b>	<b>-81</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-27I</b>	<b>-22.5</b>	<b>-90</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-29I</b>	<b>-32.54</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-30I</b>	<b>43.71</b>	<b>60</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-32S</b>	<b>-35.7</b>	<b>-74</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-45	-3.782	-45	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-47	-66.51	-50	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-50	-99.04	-44	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-52I	-11.11	-49	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12I (bg)	-5.702	-55	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12S (bg)	-6.383	-48	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-23S (bg)	-10.83	-53	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-6.071	-28	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.7623	11	58	No	16	6.25	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-4.462	-30	-58	No	16	6.25	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWA-5S (bg)</b>	<b>-7.658</b>	<b>-65</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.774	-23	-58	No	16	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-25I</b>	<b>-46.21</b>	<b>-96</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-27I</b>	<b>-26.31</b>	<b>-78</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-29I</b>	<b>-63.47</b>	<b>-63</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-30I</b>	<b>99.28</b>	<b>74</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>-48.29</b>	<b>-81</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWC-47	-71.84	-54	-58	No	16	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>-115.9</b>	<b>-68</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Upper Tolerance Limit Summary Table

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/4/2022, 3:54 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0241	n/a	n/a	n/a	n/a	136	n/a	n/a	82.35	n/a	n/a	0.0009341	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	136	n/a	n/a	75	n/a	n/a	0.0009341	NP Inter(NDs)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a	136	n/a	n/a	0	n/a	n/a	0.0009341	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	136	n/a	n/a	100	n/a	n/a	0.0009341	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	138	n/a	n/a	98.55	n/a	n/a	0.0008431	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a	136	n/a	n/a	19.85	n/a	n/a	0.0009341	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0135	n/a	n/a	n/a	n/a	136	n/a	n/a	55.88	n/a	n/a	0.0009341	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.699	n/a	n/a	n/a	n/a	136	0.8071	0.474	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.42	n/a	n/a	n/a	n/a	144	n/a	n/a	53.47	n/a	n/a	0.0006197	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	136	n/a	n/a	86.76	n/a	n/a	0.0009341	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a	136	n/a	n/a	39.71	n/a	n/a	0.0009341	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a	120	n/a	n/a	87.5	n/a	n/a	0.002122	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a	133	n/a	n/a	77.44	n/a	n/a	0.00109	NP Inter(NDs)
Selenium (mg/L)	n/a	0.006	n/a	n/a	n/a	n/a	136	n/a	n/a	91.18	n/a	n/a	0.0009341	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	136	n/a	n/a	100	n/a	n/a	0.0009341	NP Inter(NDs)

<b>PLANT BRANCH POND BCD GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.024	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.016	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.014	0.014
Combined Radium, Total (pCi/L)	5		1.7	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.089	0.089
Mercury, Total (mg/L)	0.002		0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.008	0.1
Selenium, Total (mg/L)	0.05		0.006	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

*\*Highlighted cells indicate Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residuals*

*\*GWPS = Groundwater Protection Standard*

# Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:03 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cadmium (mg/L)	BRGWC-50	0.03637	0.0123	0.005	Yes	17	0.02766	0.02475	0	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BRGWC-50	1.42	1.3	0.014	Yes	17	1.395	0.06615	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	PZ-511	0.0239	0.018	0.014	Yes	10	0.02239	0.006881	0	None	No	0.011	NP (normality)

# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-29I	0.003	0.0007	0.006	No	17	0.002865	0.0005578	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-30I	0.003	0.0013	0.006	No	17	0.0029	0.0004123	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.006	No	17	0.002906	0.0003881	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-45	0.003	0.0014	0.006	No	18	0.002447	0.0008933	61.11	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-47	0.003	0.00035	0.006	No	18	0.002853	0.0006246	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-50	0.003	0.00092	0.006	No	17	0.002579	0.0009413	82.35	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-52I	0.003	0.00091	0.006	No	17	0.002599	0.0008968	82.35	None	No	0.01	NP (NDs)
Antimony (mg/L)	PZ-50D	0.003	0.00056	0.006	No	4	0.00239	0.00122	75	None	No	0.0625	NP (NDs)
Antimony (mg/L)	PZ-51D	0.003	0.0013	0.006	No	4	0.002575	0.00085	75	None	No	0.0625	NP (NDs)
Antimony (mg/L)	PZ-51I	0.003	0.00079	0.006	No	8	0.002336	0.0009479	62.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	PZ-51S	0.003	0.00043	0.006	No	8	0.002529	0.0009463	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BRGWC-25I	0.005	0.00091	0.01	No	17	0.003985	0.001887	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-27I	0.005	0.0014	0.01	No	17	0.004065	0.001743	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-29I	0.005	0.0015	0.01	No	17	0.003447	0.001957	58.82	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-30I	0.005	0.00283	0.01	No	17	0.004611	0.001169	88.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	17	0.004737	0.001084	94.12	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-45	0.005	0.00096	0.01	No	18	0.003894	0.00186	72.22	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-47	0.005	0.0012	0.01	No	18	0.002951	0.001837	33.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-50	0.005	0.0025	0.01	No	17	0.004124	0.001675	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-52I	0.005	0.0026	0.01	No	17	0.003657	0.001473	41.18	None	No	0.01	NP (normality)
Arsenic (mg/L)	PZ-50D	0.002914	0.0000331	0.01	No	4	0.002355	0.001874	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51D	0.00374	0.0002464	0.01	No	4	0.002745	0.001689	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51I	0.005	0.00222	0.01	No	8	0.004652	0.0009829	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	PZ-51S	0.005	0.002	0.01	No	8	0.004625	0.001061	87.5	None	No	0.004	NP (NDs)
Barium (mg/L)	BRGWC-25I	0.03483	0.02632	2	No	17	0.03078	0.007065	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-27I	0.01685	0.015	2	No	17	0.01592	0.001471	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-29I	0.0192	0.0169	2	No	17	0.01805	0.001838	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-30I	0.02874	0.02236	2	No	17	0.02569	0.00533	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04195	0.02702	2	No	17	0.03449	0.01191	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-45	0.09373	0.07398	2	No	18	0.08386	0.01632	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-47	0.04274	0.03319	2	No	18	0.03797	0.007891	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-50	0.02107	0.01806	2	No	17	0.01956	0.002402	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-52I	0.02435	0.0161	2	No	17	0.02052	0.007012	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	PZ-50D	0.05003	0.01782	2	No	4	0.03393	0.007091	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51D	0.08	0.057	2	No	4	0.0631	0.01129	0	None	No	0.0625	NP (normality)
Barium (mg/L)	PZ-51I	0.01626	0.01359	2	No	8	0.01493	0.00126	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51S	0.03466	0.02467	2	No	8	0.02966	0.004711	0	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-27I	0.0005	0.0001	0.004	No	18	0.0002352	0.0001743	27.78	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-29I	0.001026	0.00074	0.004	No	17	0.0008832	0.0002286	5.882	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-45	0.0005	0.000079	0.004	No	19	0.0004539	0.0001381	89.47	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-47	0.0005	0.000056	0.004	No	18	0.0004254	0.0001716	83.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-50	0.005518	0.002801	0.004	No	17	0.004159	0.002169	11.76	None	No	0.01	Param.
Beryllium (mg/L)	PZ-50D	0.0004024	-0.00007439	0.004	No	4	0.000332	0.0002121	50	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	PZ-51I	0.0005	0.000064	0.004	No	8	0.0001845	0.0001951	25	None	No	0.004	NP (normality)
Cadmium (mg/L)	BRGWC-27I	0.001	0.00009	0.005	No	18	0.0008978	0.0002975	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-30I	0.001	0.00014	0.005	No	18	0.0009011	0.000288	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-32S	0.001	0.00011	0.005	No	18	0.0008494	0.0003465	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-45	0.001	0.0002	0.005	No	19	0.0008183	0.0003619	78.95	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-47	0.001	0.00015	0.005	No	18	0.0005406	0.0004238	44.44	None	No	0.01	NP (normality)
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>0.03637</b>	<b>0.0123</b>	<b>0.005</b>	<b>Yes</b>	<b>17</b>	<b>0.02766</b>	<b>0.02475</b>	<b>0</b>	<b>None</b>	<b>x^(1/3)</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-51I	0.01225	0.001149	0.005	No	10	0.007311	0.01016	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	BRGWC-25I	0.01	0.0016	0.1	No	17	0.008975	0.002895	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-27I	0.01	0.003	0.1	No	17	0.009059	0.00268	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-29I	0.02	0.01	0.1	No	17	0.01059	0.002425	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-30I	0.014	0.0051	0.1	No	17	0.009947	0.00158	88.24	None	No	0.01	NP (NDs)

# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	BRGWC-32S	0.01	0.0012	0.1	No	17	0.004629	0.004109	35.29	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-45	0.01	0.0014	0.1	No	18	0.008496	0.003464	83.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-47	0.01	0.0018	0.1	No	18	0.008008	0.003841	77.78	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-50	0.01	0.00098	0.1	No	17	0.006514	0.004389	58.82	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-52I	0.01	0.0017	0.1	No	17	0.009512	0.002013	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	PZ-51I	0.01	0.0008	0.1	No	8	0.007722	0.004217	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	PZ-51S	0.01	0.00042	0.1	No	8	0.007631	0.004386	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	BRGWC-25I	0.006497	0.003517	0.014	No	17	0.005007	0.002378	5.882	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-27I	0.01062	0.007739	0.014	No	18	0.009178	0.002378	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-29I	0.009914	0.006062	0.014	No	17	0.007988	0.003074	5.882	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-30I	0.00119	0.0007782	0.014	No	18	0.001106	0.0003155	16.67	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BRGWC-32S	0.0025	0.001	0.014	No	18	0.001083	0.0003536	88.89	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-45	0.015	0.0054	0.014	No	19	0.01238	0.01443	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-47	0.001751	0.0004698	0.014	No	18	0.002175	0.003099	22.22	Kaplan-Meier	ln(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>BRGWC-50</b>	<b>1.42</b>	<b>1.3</b>	<b>0.014</b>	<b>Yes</b>	<b>17</b>	<b>1.395</b>	<b>0.06615</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Cobalt (mg/L)	BRGWC-52I	0.0015	0.00063	0.014	No	17	0.001382	0.000966	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	PZ-50D	0.5119	-0.1865	0.014	No	5	0.1627	0.2084	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-51D	0.0004605	0.0002954	0.014	No	5	0.0006232	0.0003464	40	Kaplan-Meier	ln(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>PZ-51I</b>	<b>0.0239</b>	<b>0.018</b>	<b>0.014</b>	<b>Yes</b>	<b>10</b>	<b>0.02239</b>	<b>0.006881</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.011</b>	<b>NP (normality)</b>
Cobalt (mg/L)	PZ-51S	0.007228	0.002645	0.014	No	9	0.004937	0.002373	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-25I	1.536	0.5768	5	No	17	1.137	0.9613	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-27I	1.415	0.5721	5	No	17	1.059	0.798	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-29I	1.648	1.18	5	No	17	1.414	0.3731	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-30I	1.353	0.6195	5	No	17	1.036	0.6789	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.079	0.468	5	No	17	0.7737	0.4878	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-45	0.8864	0.3806	5	No	18	0.6335	0.4179	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-47	1.593	0.716	5	No	18	1.223	0.8064	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-50	1.957	1.264	5	No	17	1.611	0.5523	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-52I	2.558	1.453	5	No	17	2.06	0.9825	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-50D	3.133	0.07744	5	No	4	1.605	0.6728	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51D	3.894	1.101	5	No	4	2.498	0.6152	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51I	11.7	0.625	5	No	8	2.451	3.764	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-51S	17.1	0.00107	5	No	8	2.786	5.805	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	BRGWC-25I	0.27	0.14	4	No	18	0.2081	0.1353	5.556	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-27I	0.2596	0.1546	4	No	18	0.2071	0.08675	11.11	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-29I	0.37	0.085	4	No	18	0.1734	0.1234	11.11	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-30I	0.3461	0.1334	4	No	18	0.2594	0.215	5.556	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.11	0.09	4	No	18	0.1077	0.03756	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-45	0.166	0.067	4	No	19	0.1764	0.2312	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-47	0.34	0.076	4	No	19	0.2334	0.257	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-50	0.8057	0.3536	4	No	18	0.6159	0.4444	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-52I	0.2297	0.1292	4	No	17	0.1795	0.08022	5.882	None	No	0.01	Param.
Fluoride (mg/L)	PZ-50D	0.2794	0.04298	4	No	5	0.1612	0.07055	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51D	0.3329	0.2023	4	No	5	0.2676	0.03897	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51I	0.148	0.061	4	No	9	0.101	0.02184	77.78	None	No	0.002	NP (NDs)
Fluoride (mg/L)	PZ-51S	0.1175	0.05175	4	No	8	0.08463	0.03101	0	None	No	0.01	Param.
Lead (mg/L)	BRGWC-25I	0.002	0.00011	0.015	No	17	0.001889	0.0004584	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-27I	0.002	0.000063	0.015	No	17	0.001886	0.0004698	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-29I	0.0006	0.00029	0.015	No	16	0.0006819	0.0006628	18.75	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-30I	0.002	0.00011	0.015	No	17	0.001889	0.0004584	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-45	0.002	0.00026	0.015	No	18	0.001696	0.0007011	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-47	0.002	0.00012	0.015	No	18	0.00168	0.0007372	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-50	0.002	0.0001	0.015	No	17	0.001144	0.000942	52.94	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-52I	0.002	0.000042	0.015	No	17	0.001885	0.0004749	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	PZ-50D	0.002	0.000056	0.015	No	4	0.001514	0.000972	75	None	No	0.0625	NP (NDs)

# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	PZ-51D	0.002	0.00013	0.015	No	4	0.001533	0.000935	75	None	No	0.0625	NP (NDs)
Lead (mg/L)	PZ-51I	0.002	0.00017	0.015	No	8	0.001566	0.0008048	75	None	No	0.004	NP (NDs)
Lithium (mg/L)	BRGWC-27I	0.0021	0.0012	0.089	No	17	0.002106	0.001405	17.65	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-29I	0.003608	0.00302	0.089	No	17	0.003314	0.0004687	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-30I	0.01735	0.01219	0.089	No	17	0.01493	0.004314	0	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	BRGWC-32S	0.0035	0.0021	0.089	No	17	0.002688	0.001061	11.76	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-45	0.003728	0.002896	0.089	No	17	0.003312	0.0006642	5.882	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-47	0.04413	0.04074	0.089	No	18	0.04243	0.002802	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-50	0.0439	0.03831	0.089	No	17	0.04111	0.004465	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-52I	0.006682	0.003294	0.089	No	17	0.005294	0.003416	5.882	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	PZ-50D	0.02921	0.01504	0.089	No	4	0.02213	0.003119	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-51D	0.0096	0.0042	0.089	No	4	0.008175	0.002654	0	None	No	0.0625	NP (normality)
Lithium (mg/L)	PZ-51I	0.026	0.019	0.089	No	8	0.0209	0.002371	0	None	No	0.004	NP (normality)
Lithium (mg/L)	PZ-51S	0.005	0.0012	0.089	No	8	0.004525	0.001344	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BRGWC-25I	0.0002	0.000083	0.002	No	15	0.0001815	0.00004941	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-27I	0.0002	0.00005	0.002	No	15	0.0001798	0.00005331	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-29I	0.0002	0.000098	0.002	No	15	0.0001739	0.0000552	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-30I	0.0002	0.000082	0.002	No	15	0.0001728	0.0000569	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0002	0.0001	0.002	No	15	0.0001781	0.0000454	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	PZ-51I	0.0002	0.000099	0.002	No	8	0.0001874	0.00003571	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BRGWC-25I	0.00105	0.00089	0.1	No	16	0.0009781	0.00007876	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-30I	0.0012	0.001	0.1	No	16	0.001099	0.0003203	68.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-45	0.001	0.00076	0.1	No	17	0.000952	0.0001479	88.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-47	0.001	0.000296	0.1	No	17	0.0009586	0.0001707	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-50	0.0022	0.001	0.1	No	16	0.001219	0.0006306	87.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-52I	0.005	0.001	0.1	No	16	0.002117	0.002007	43.75	None	No	0.01	NP (normality)
Molybdenum (mg/L)	PZ-50D	0.002584	0.0004608	0.1	No	4	0.001523	0.0004676	0	None	No	0.01	Param.
Molybdenum (mg/L)	PZ-51D	0.009763	0.0001132	0.1	No	4	0.003278	0.002415	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	PZ-51I	0.001	0.000313	0.1	No	8	0.0009141	0.0002429	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BRGWC-25I	0.005	0.0021	0.05	No	17	0.004829	0.0007034	94.12	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-27I	0.005	0.0025	0.05	No	17	0.003841	0.001247	35.29	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-29I	0.005	0.0042	0.05	No	17	0.004829	0.001348	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-30I	0.005	0.0045	0.05	No	17	0.004618	0.0008662	76.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-32S	0.13	0.0019	0.05	No	18	0.07245	0.07317	22.22	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-45	0.005	0.0029	0.05	No	18	0.004883	0.000495	94.44	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-47	0.005	0.002	0.05	No	18	0.003978	0.001509	66.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-50	0.005	0.002	0.05	No	17	0.003704	0.00139	47.06	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-29I	0.002	0.00016	0.002	No	17	0.0006071	0.0007966	23.53	None	No	0.01	NP (normality)



# Confidence Intervals - Selenium BRGWC-32S

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/5/2022, 11:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Selenium (mg/L)	BRGWC-32S	0.1727	0.08187	0.05	Yes	10	0.1273	0.05091	0	None	No	0.01	Param.

# Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 1/9/2023, 10:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cadmium (mg/L)	BRGWC-50	-0.008185	-69	-63	Yes	17	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004021	-70	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWC-32S	0.03432	107	68	Yes	18	22.22	n/a	n/a	0.01	NP

# Appendix IV Trend Tests - All Results

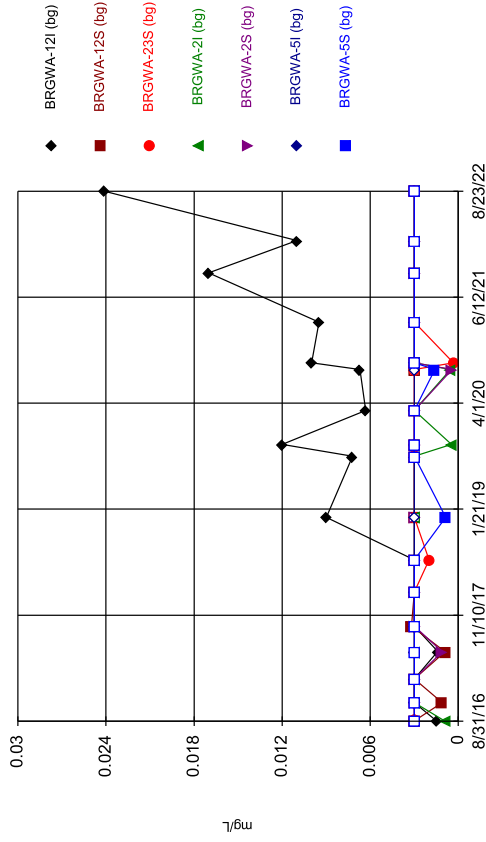
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 1/9/2023, 10:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cadmium (mg/L)	BRGWA-12I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-23S (bg)	0	5	63	No	17	88.24	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-6S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>-0.008185</b>	<b>-69</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-12I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-23S (bg)	-0.0006981	-57	-63	No	17	11.76	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-16	-63	No	17	70.59	n/a	n/a	0.01	NP
<b>Cobalt (mg/L)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.0004021</b>	<b>-70</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>11.76</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001378	-49	-53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	26	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	9	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-50	0	33	63	No	17	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-51I	0.001128	12	30	No	10	0	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-23S (bg)	-0.0003899	-38	-63	No	17	29.41	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-6S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
<b>Selenium (mg/L)</b>	<b>BRGWC-32S</b>	<b>0.03432</b>	<b>107</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>22.22</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

FIGURE A.

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

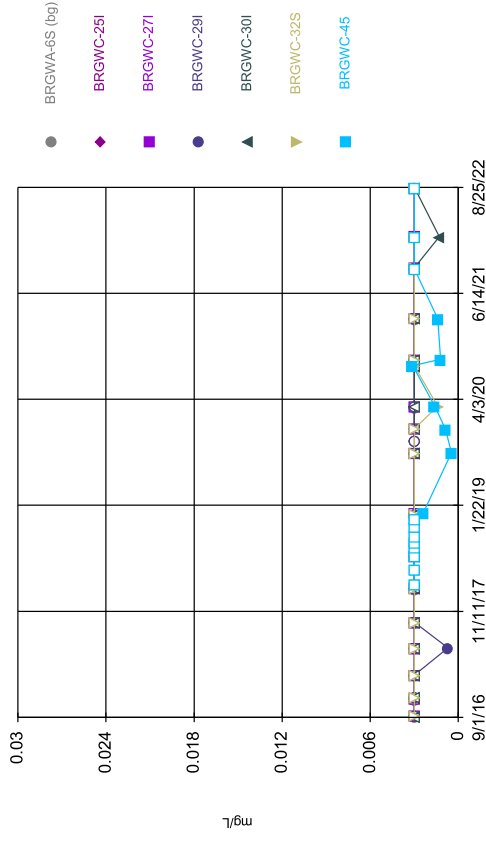
### Time Series



Constituent: Antimony Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

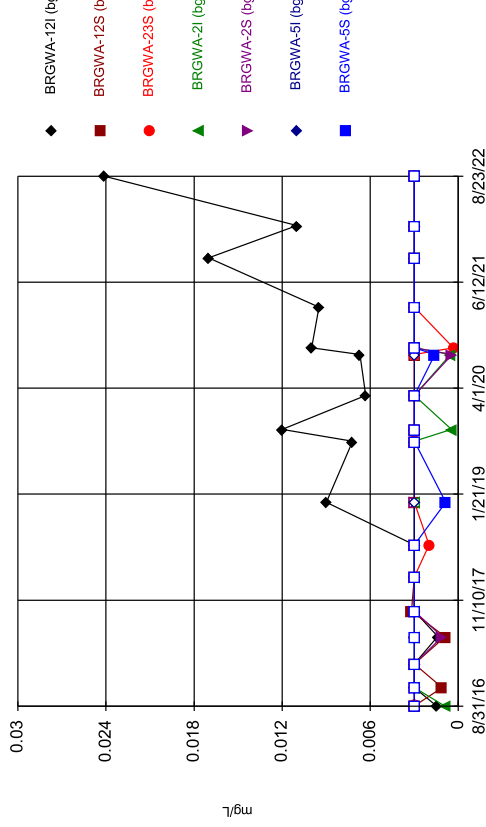
### Time Series



Constituent: Antimony Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

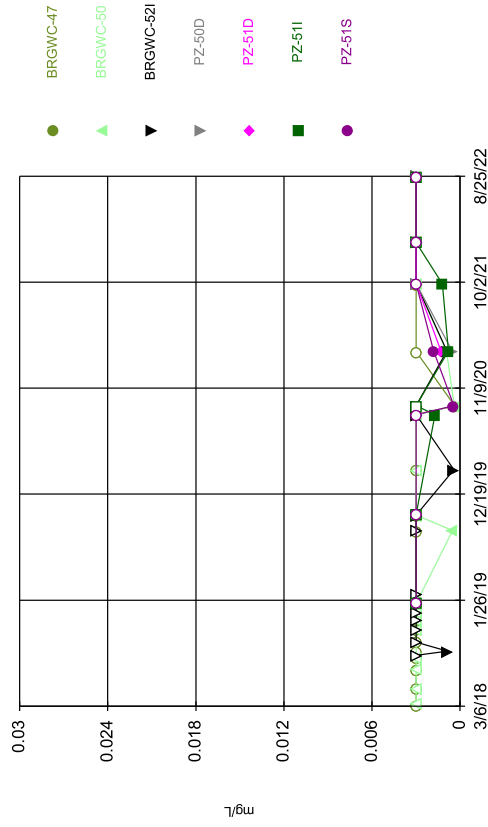
### Time Series



Constituent: Antimony Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

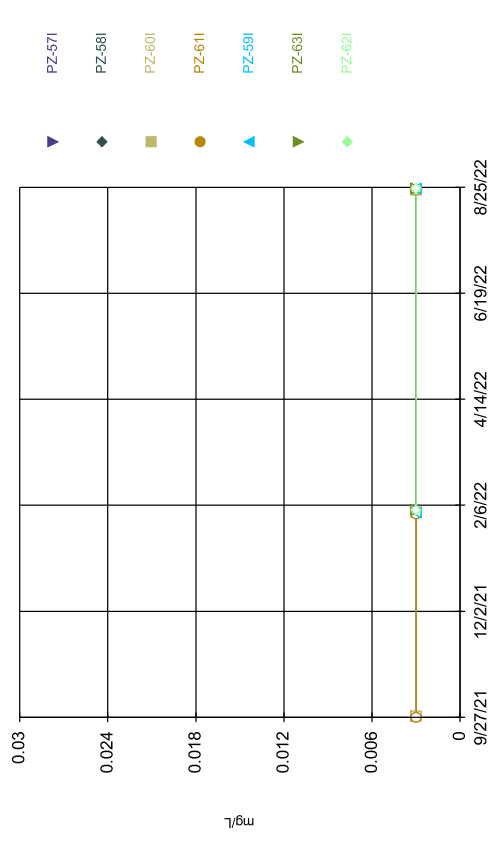
### Time Series



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Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

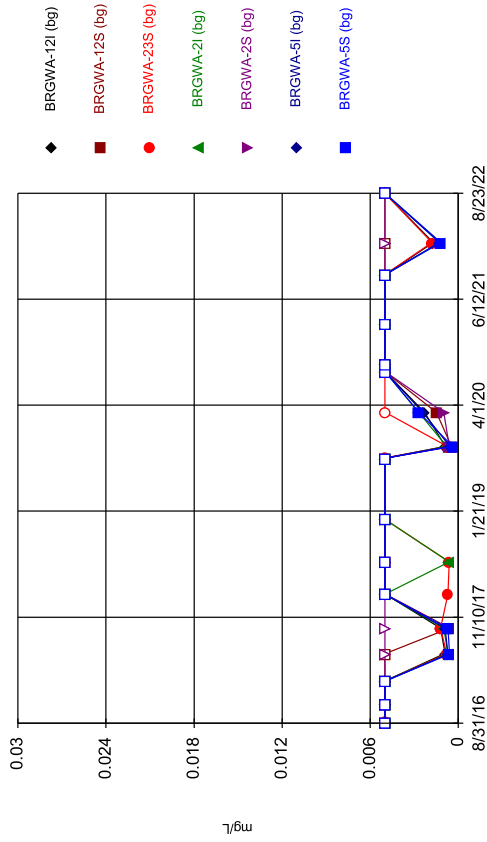
### Time Series



Constituent: Antimony Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

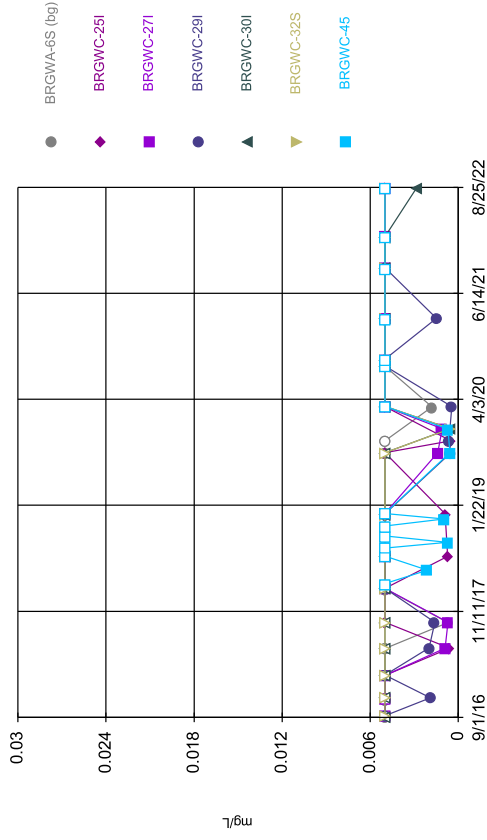
Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



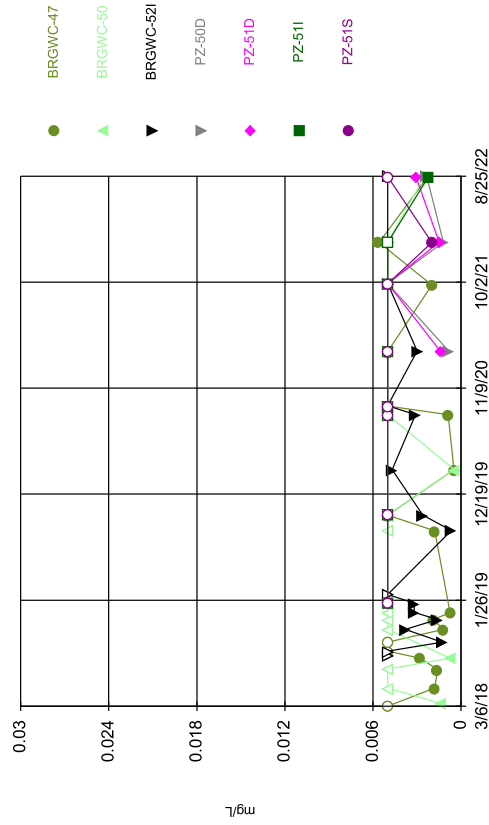
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Hollow symbols indicate censored values.

### Time Series



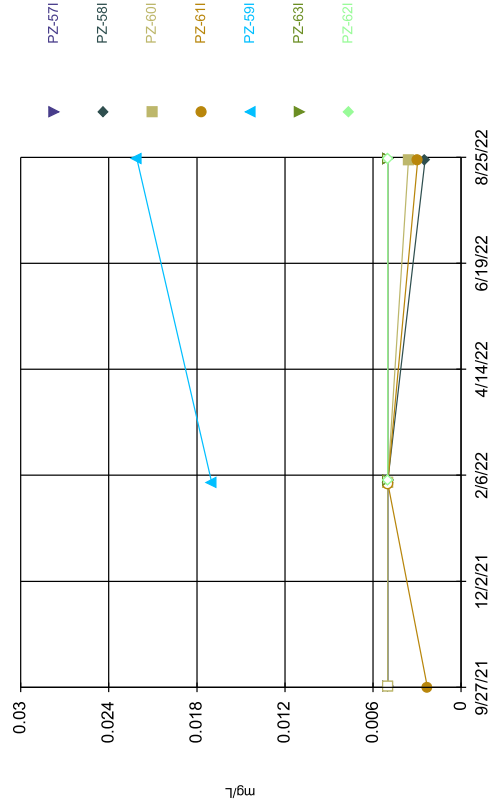
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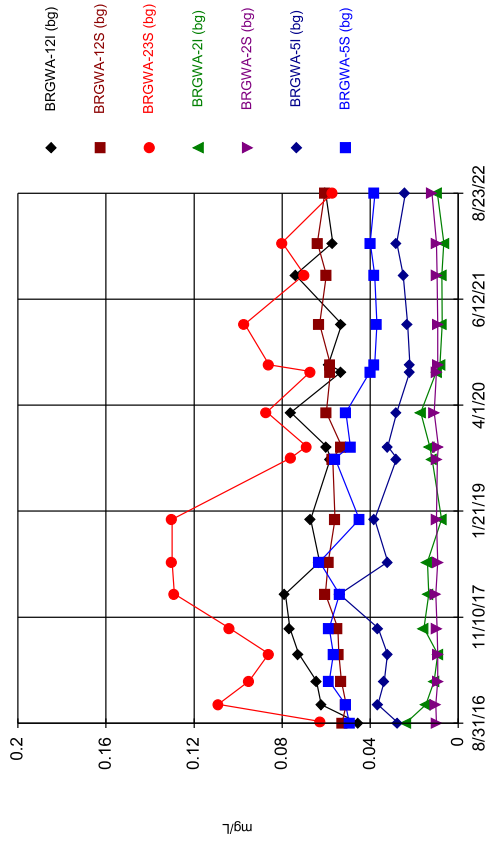


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Hollow symbols indicate censored values.

### Time Series

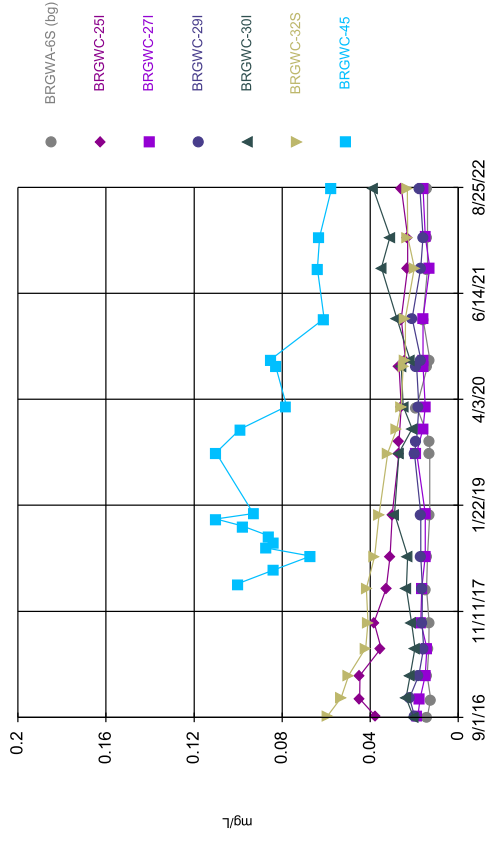


Time Series



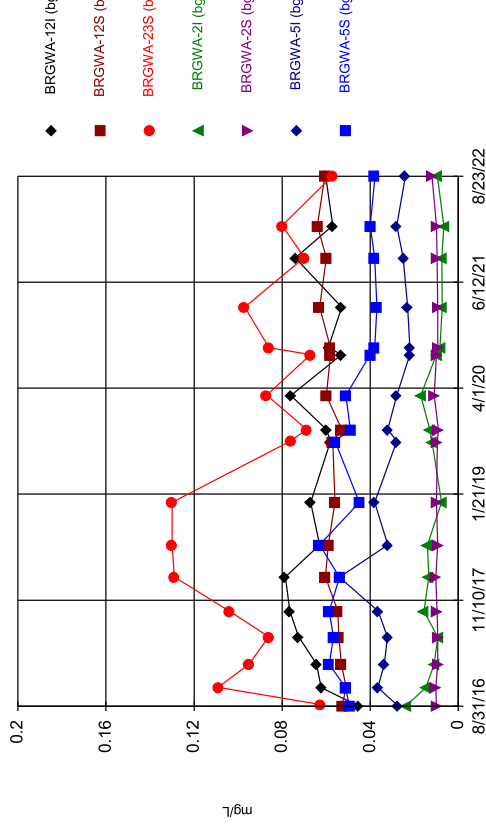
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



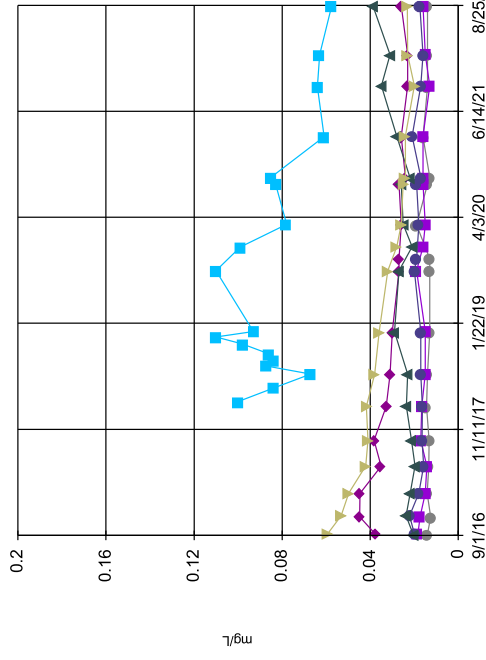
Constituent: Barium Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Barium Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



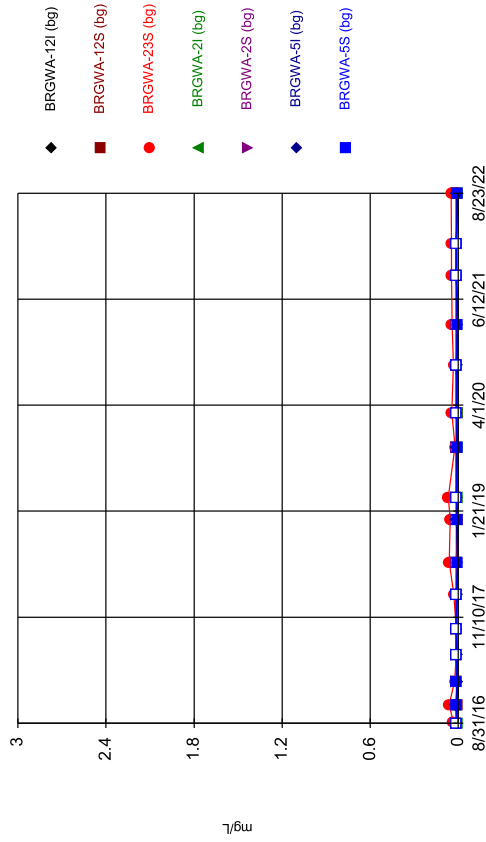
Constituent: Barium Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP





Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

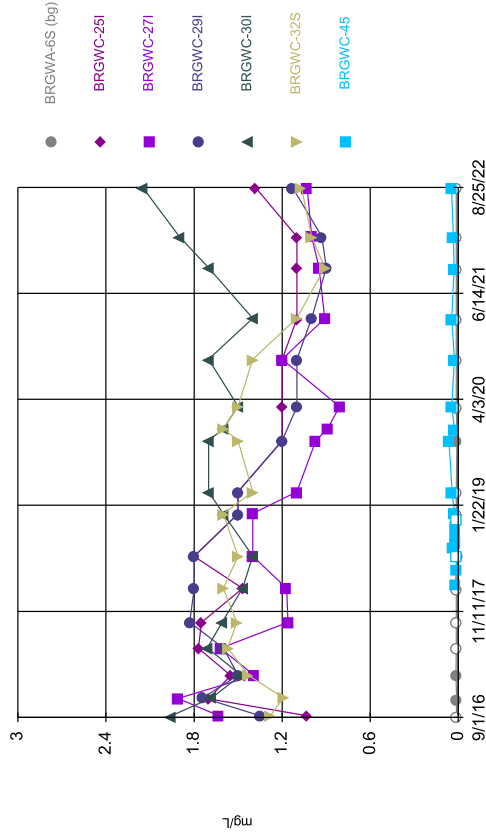
### Time Series



Constituent: Boron Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

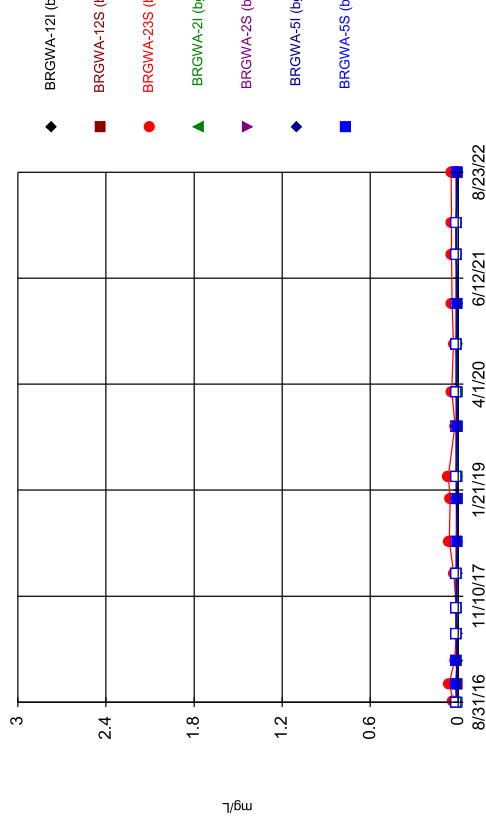
### Time Series



Constituent: Boron Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

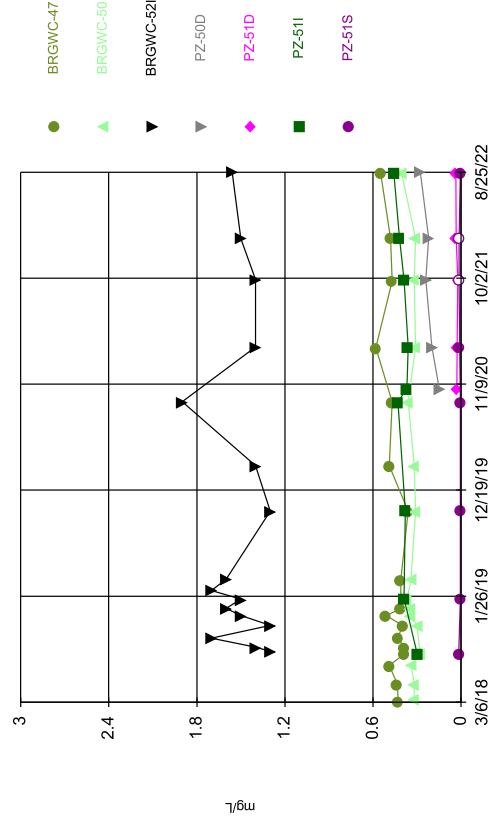
### Time Series



Constituent: Boron Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

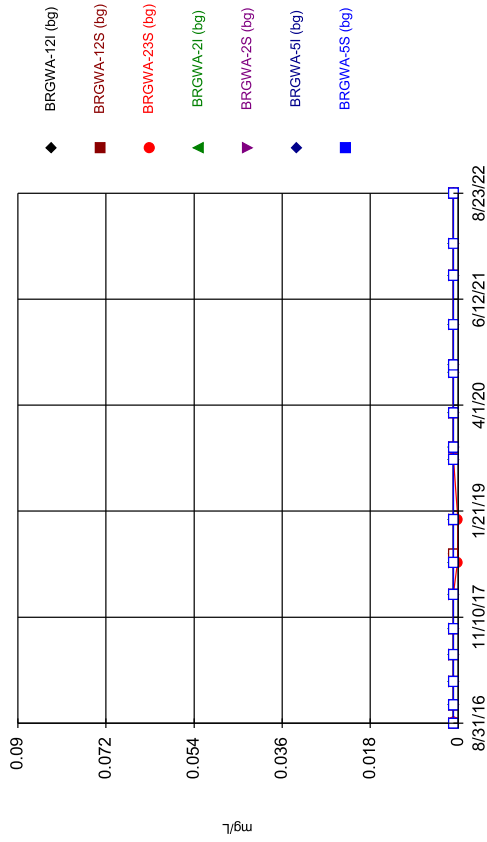
### Time Series



Constituent: Boron Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

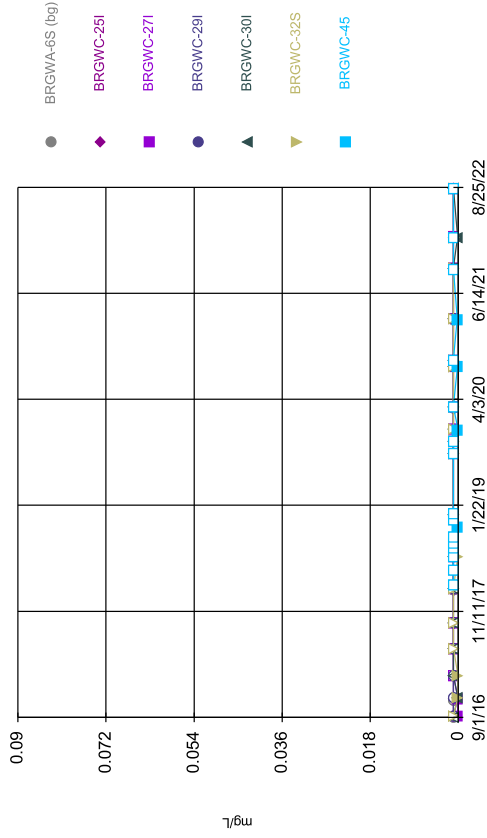
### Time Series



Constituent: Cadmium Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

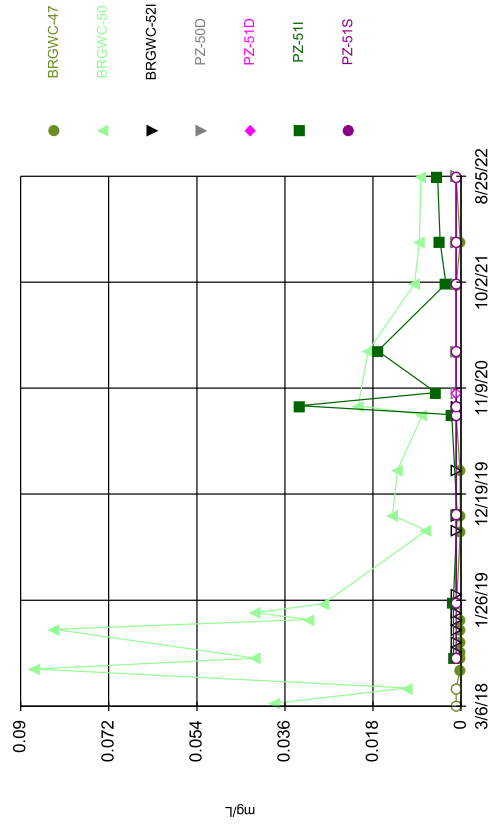
### Time Series



Constituent: Cadmium Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

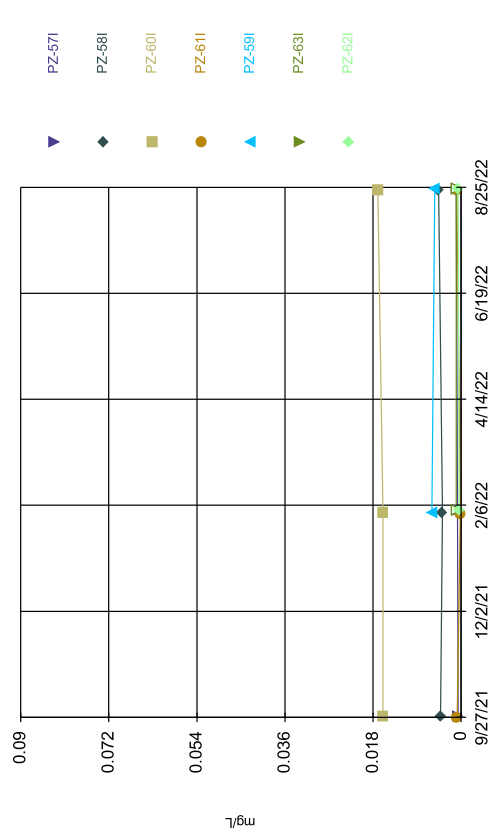
### Time Series



Constituent: Cadmium Analysis Run 11/4/2022 3:42 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

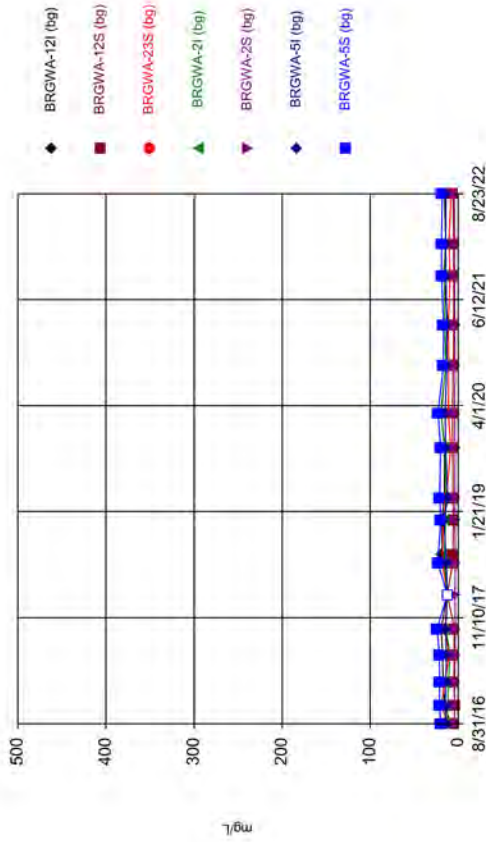
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Hollow symbols indicate censored values.

### Time Series

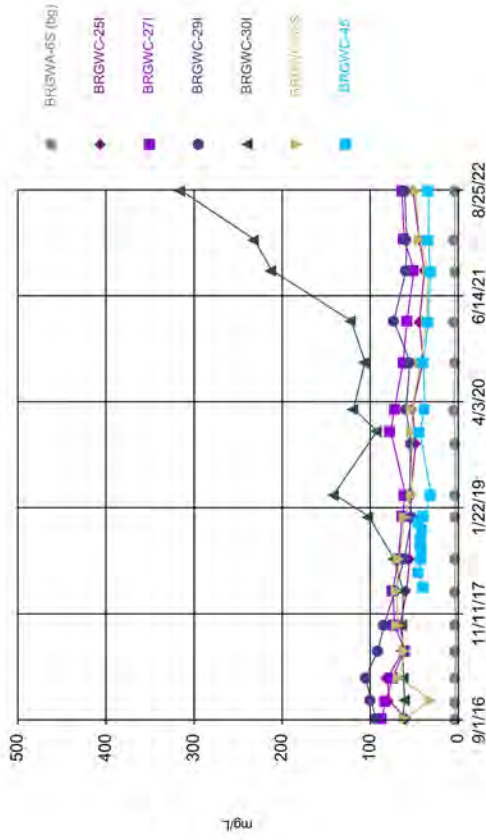


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Plant Branch Client: Southern Company Data: Plant Branch AP

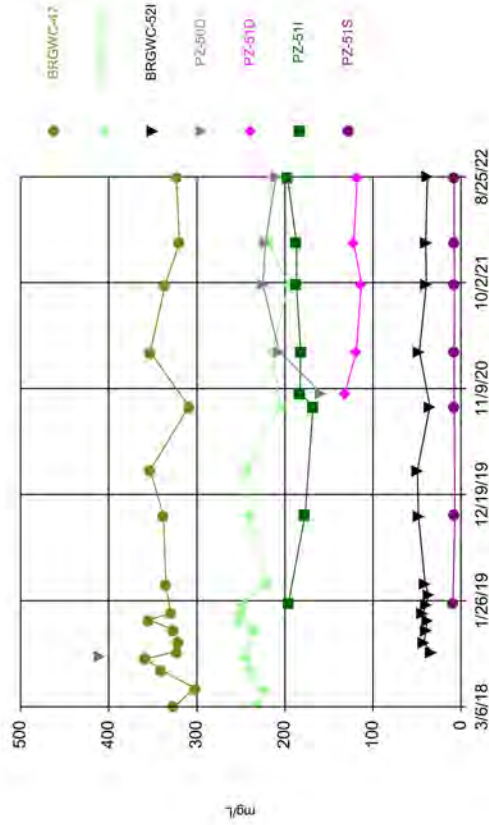
### Time Series



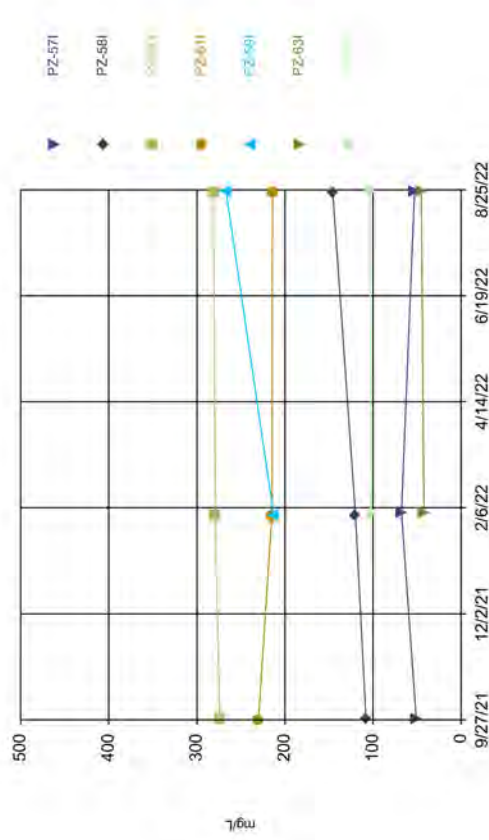
### Time Series



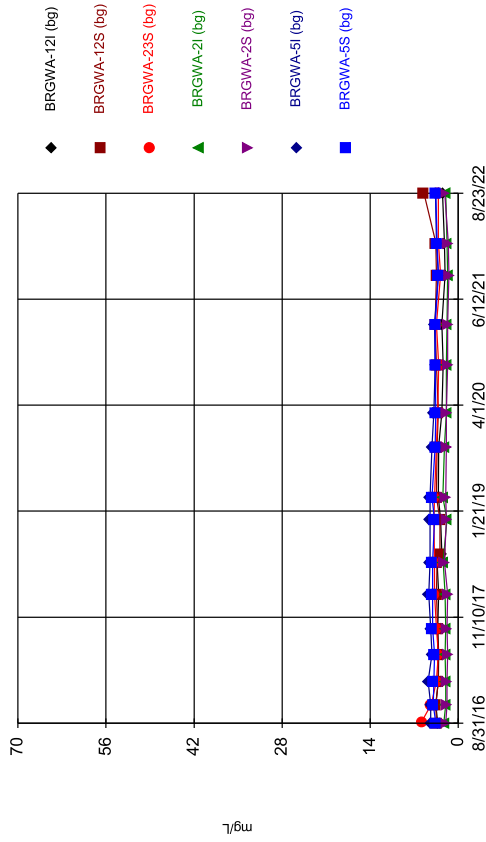
### Time Series



### Time Series

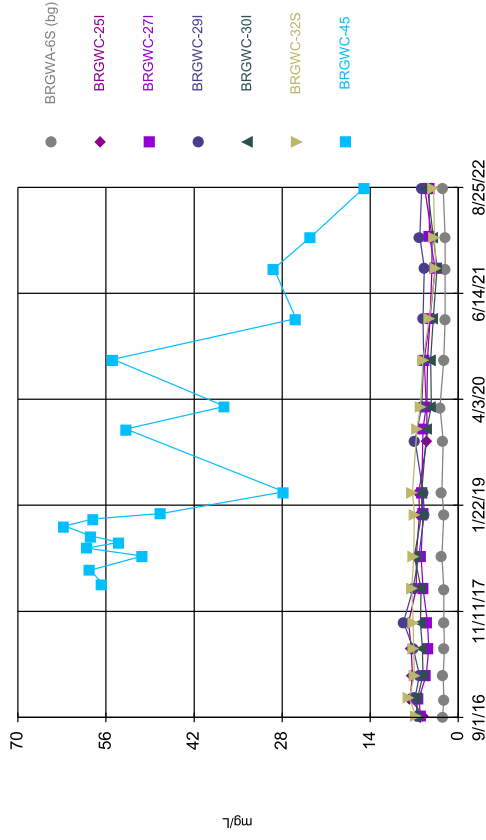


Time Series



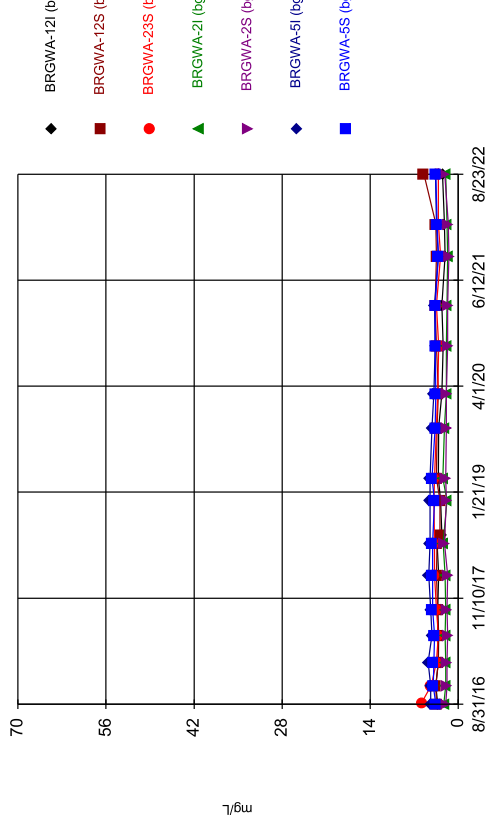
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Time Series



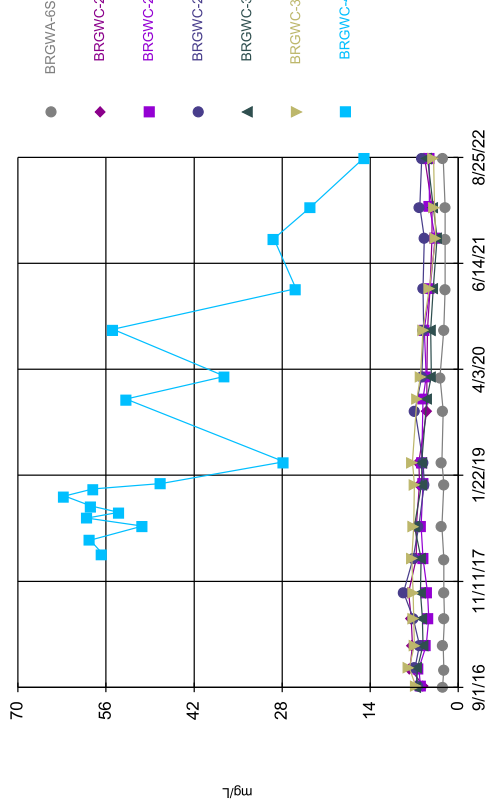
Constituent: Chloride Analysis Run 11/4/2022 3:43 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Chloride Analysis Run 11/4/2022 3:43 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

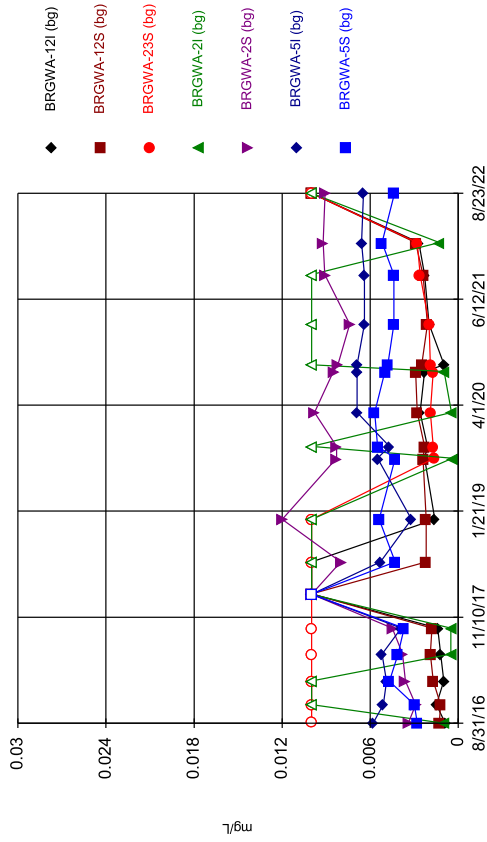
Time Series



Constituent: Chloride Analysis Run 11/4/2022 3:43 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

Santitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

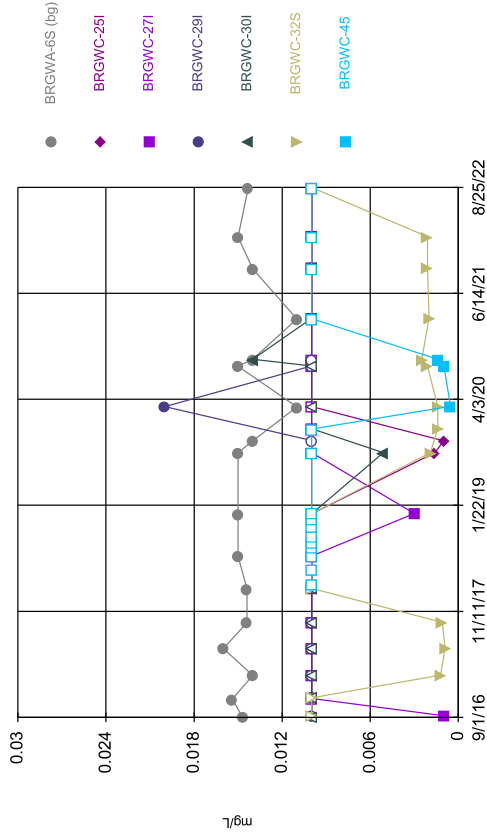
### Time Series



Constituent: Chromium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Santitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

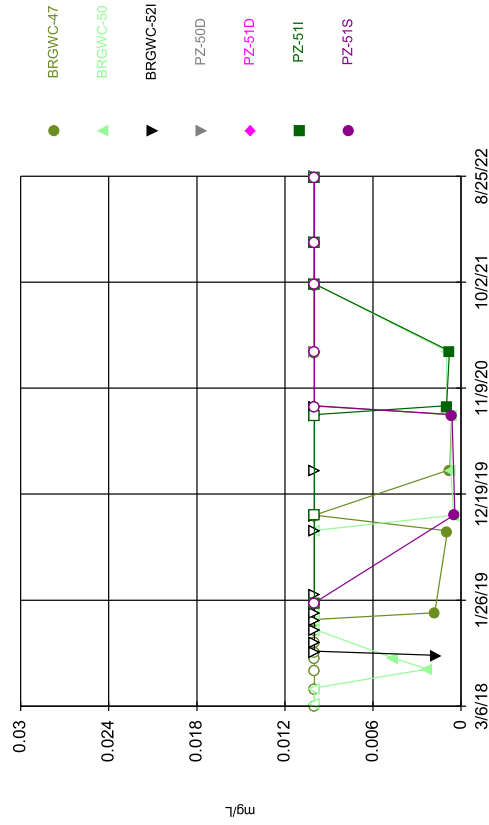
### Time Series



Constituent: Chromium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Santitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

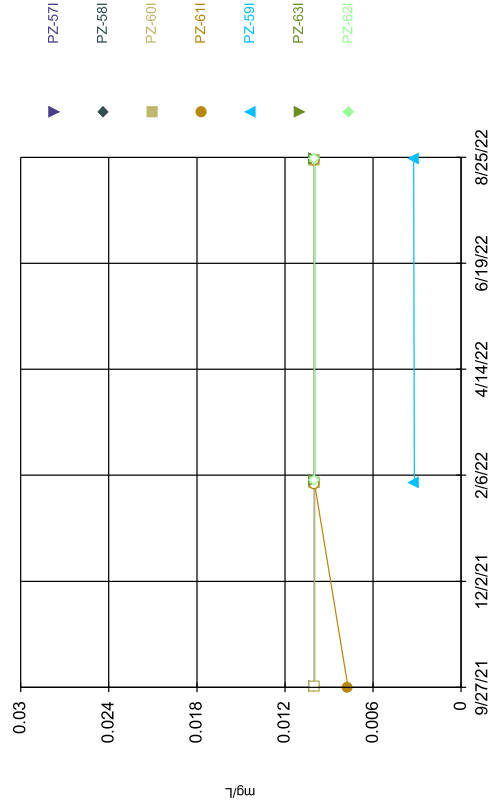
### Time Series



Constituent: Chromium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Santitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

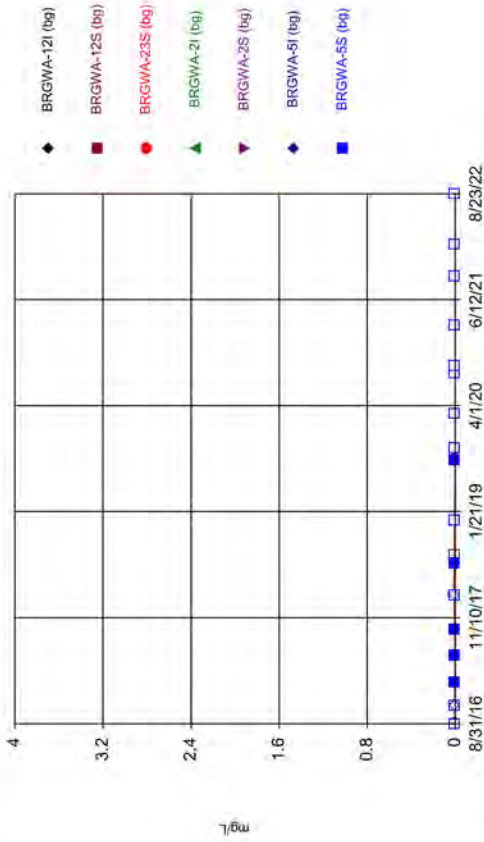
### Time Series



Constituent: Chromium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

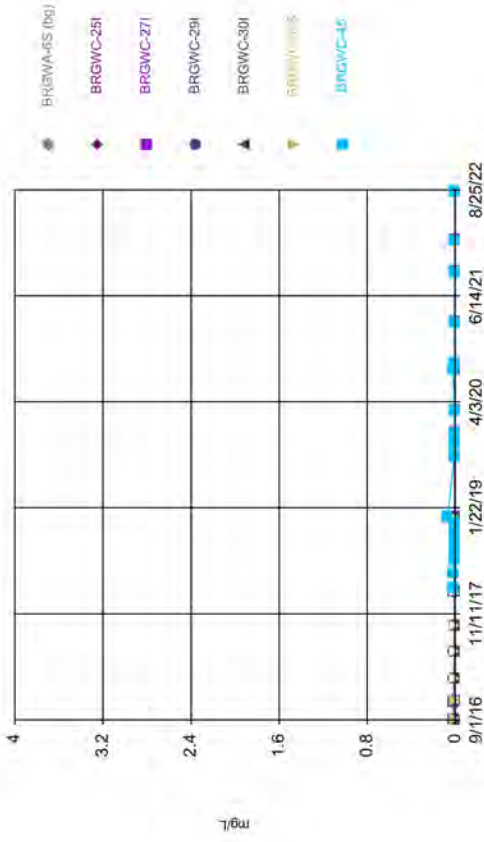
### Time Series



Constituent: Cobalt Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

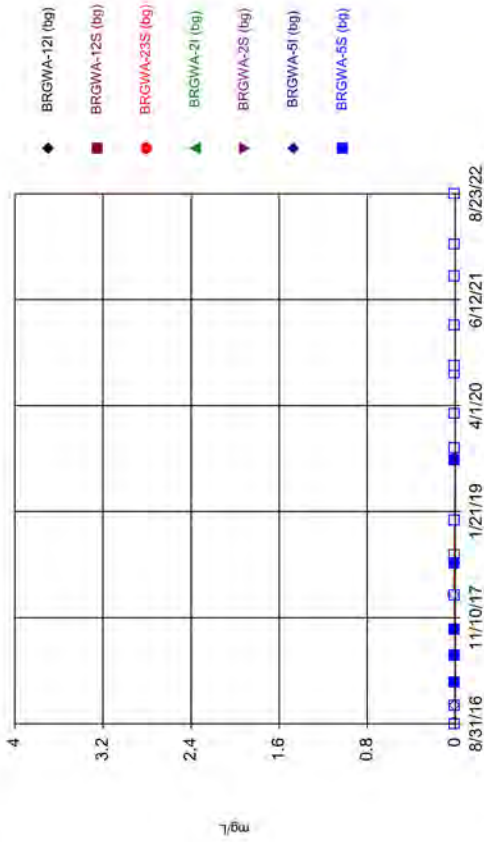
### Time Series



Constituent: Cobalt Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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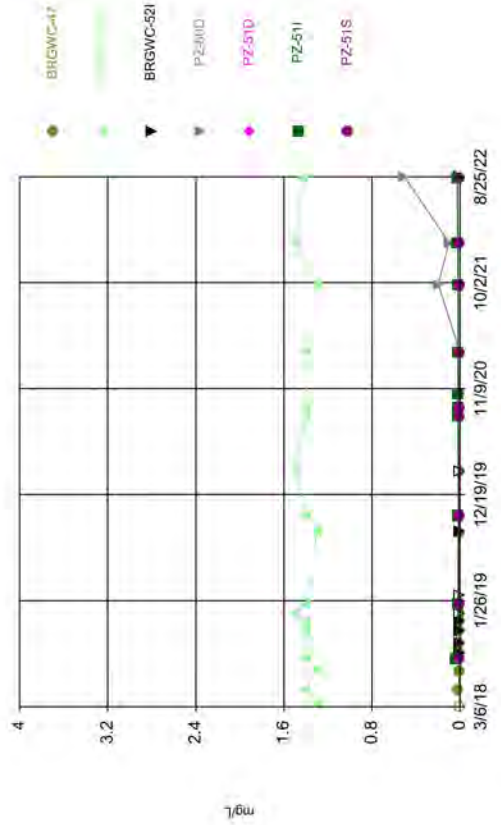
### Time Series



Constituent: Cobalt Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

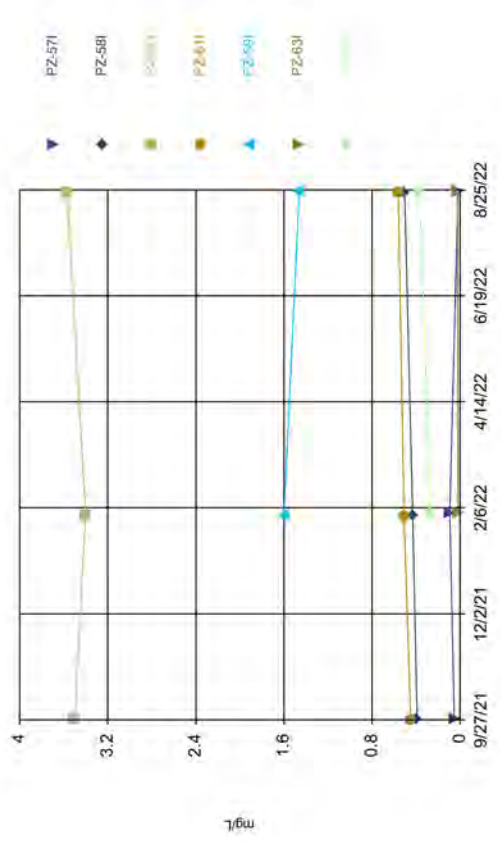
### Time Series



Constituent: Cobalt Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

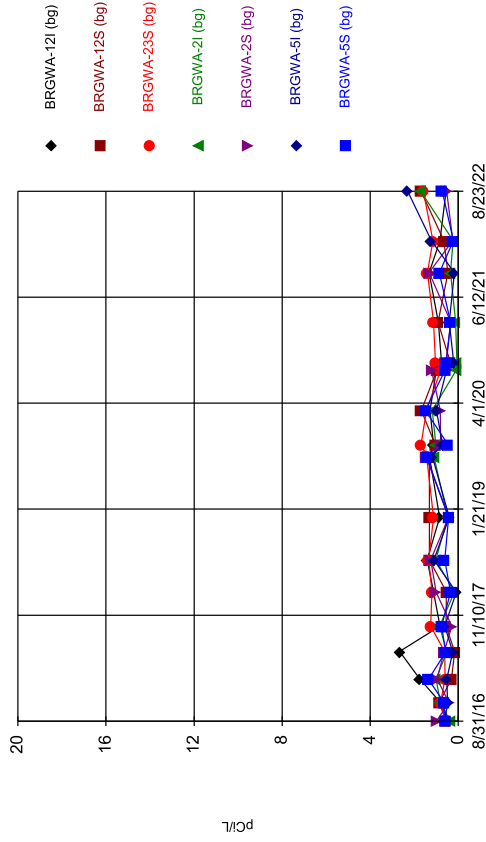
Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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### Time Series



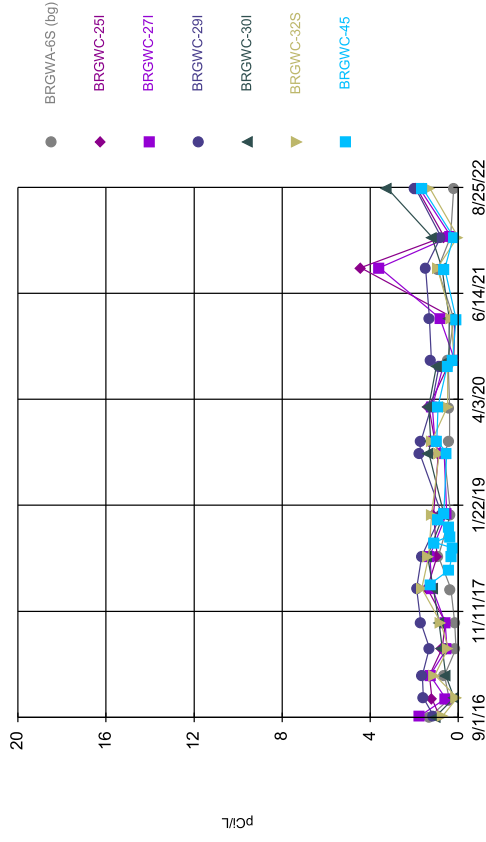
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



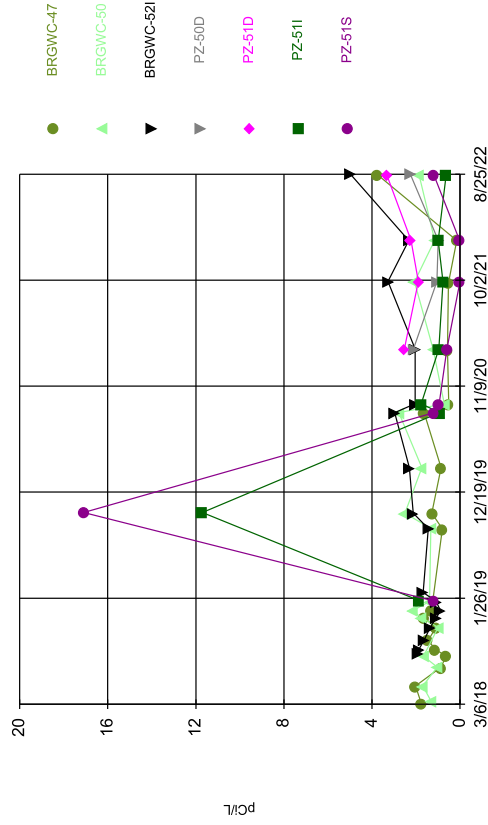
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



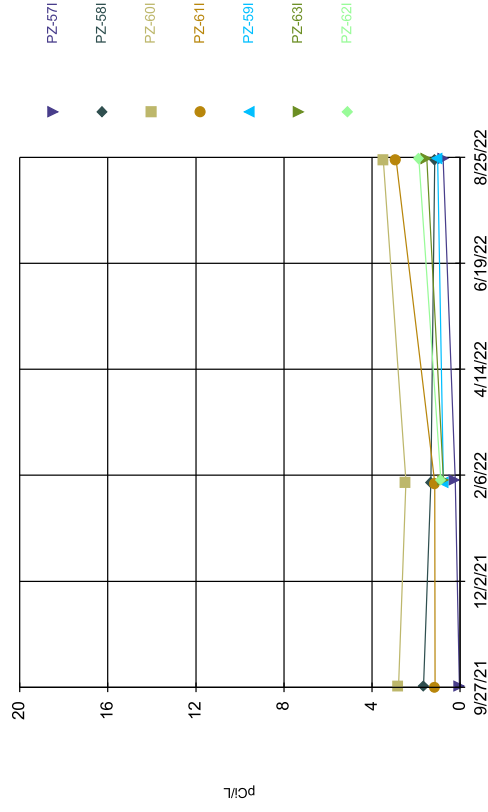
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series

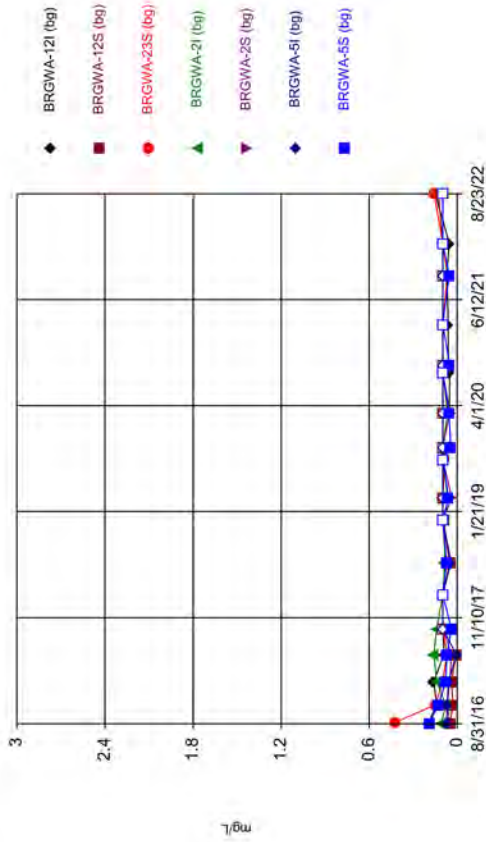


Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP



Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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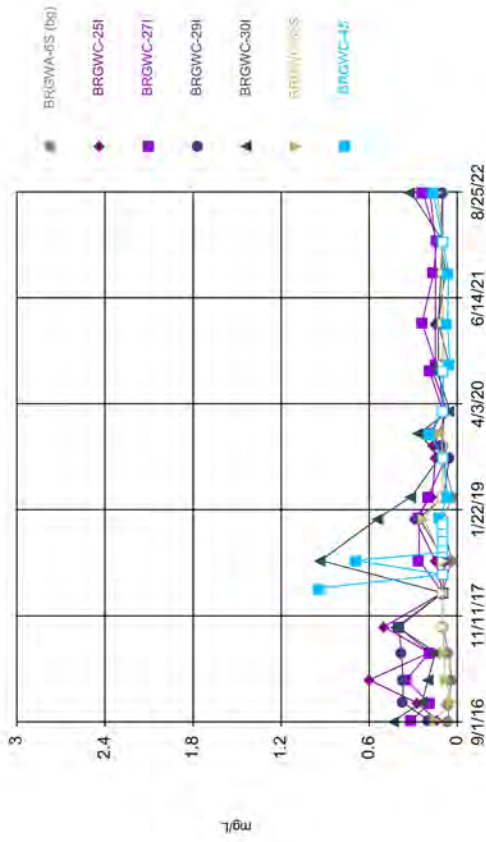
### Time Series



Constituent: Fluoride Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

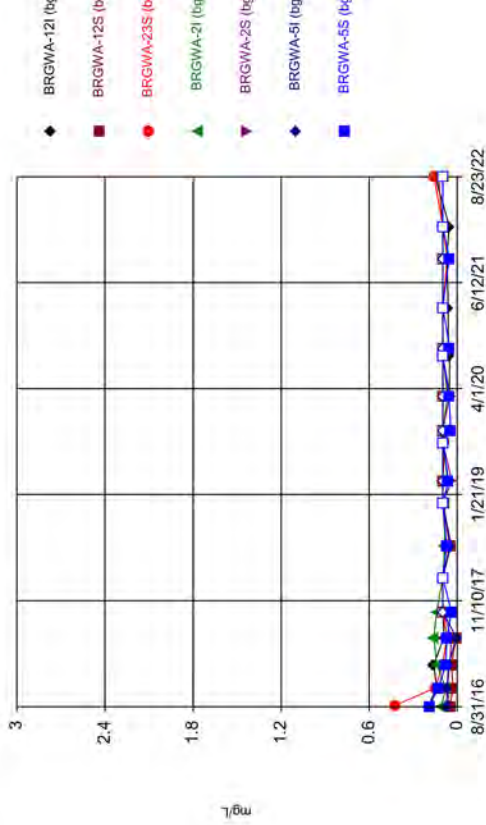
### Time Series



Constituent: Fluoride Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

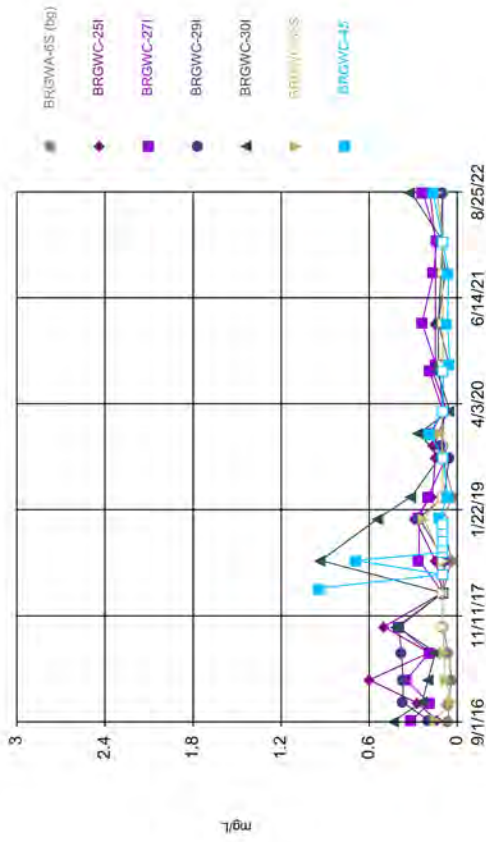
### Time Series



Constituent: Fluoride Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series

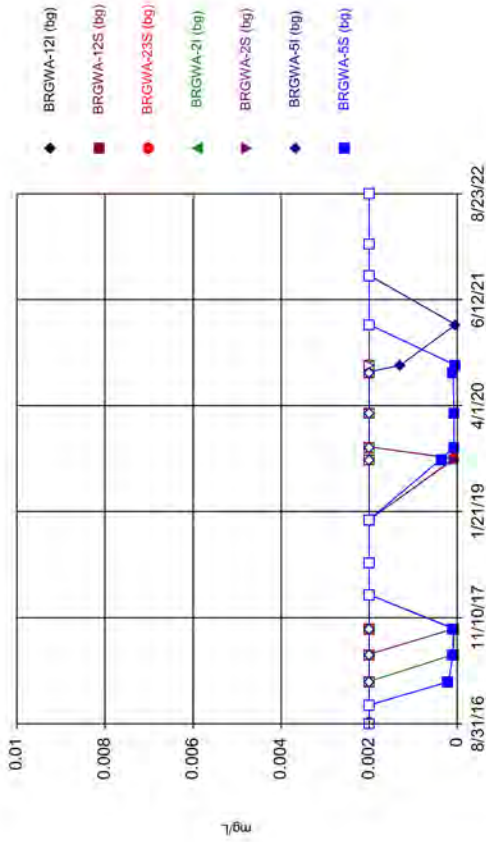


Constituent: Fluoride Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP



Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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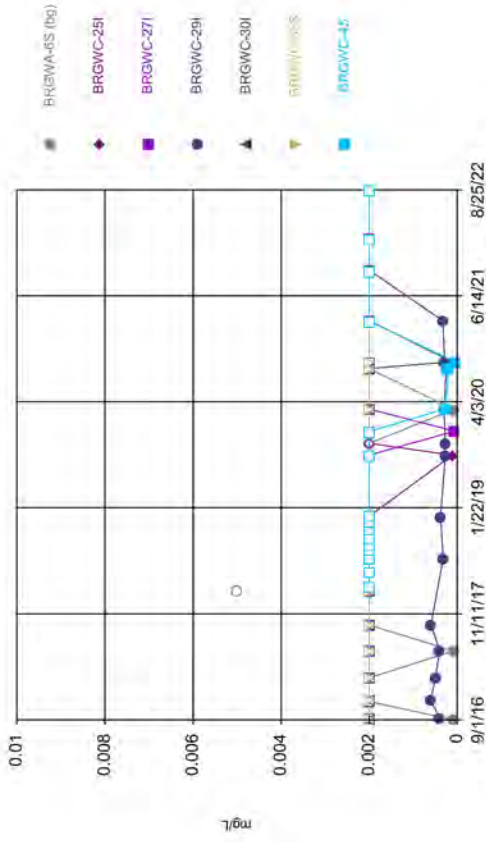
Time Series



Constituent: Lead Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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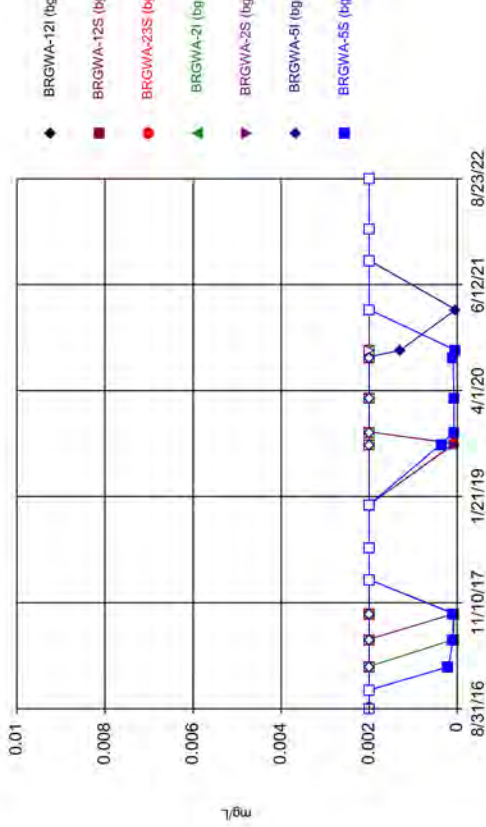
Time Series



Constituent: Lead Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

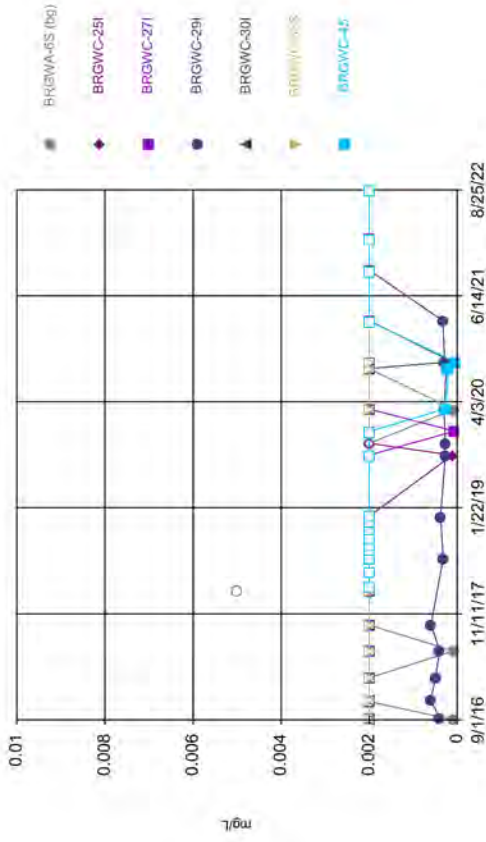
Time Series



Constituent: Lead Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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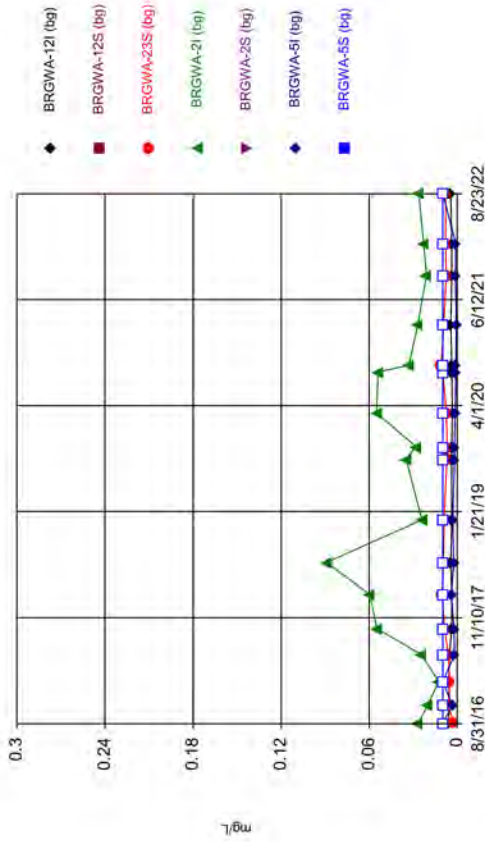
Time Series



Constituent: Lead Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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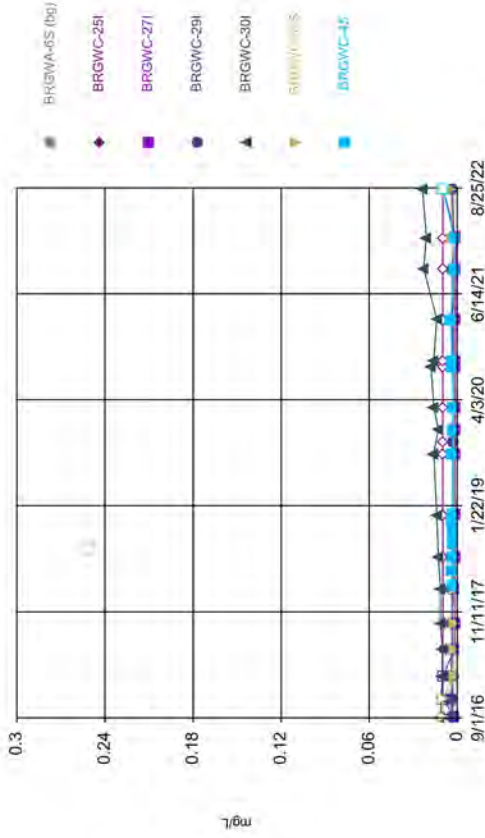
Time Series



Constituent: Lithium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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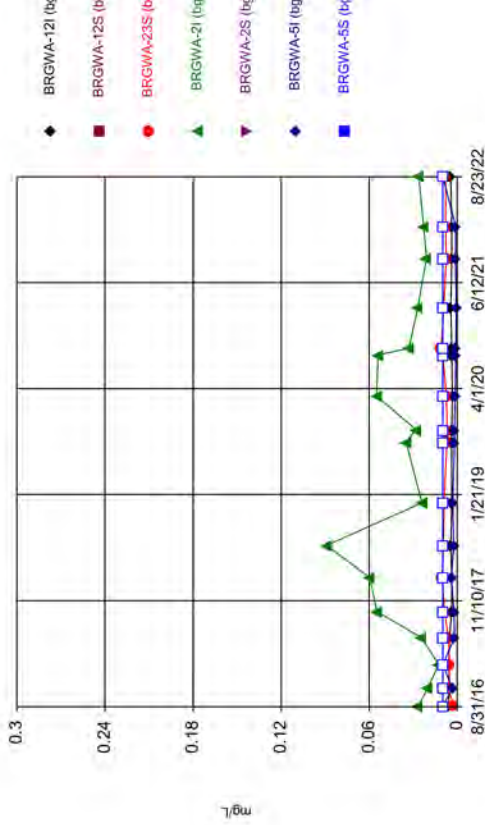
Time Series



Constituent: Lithium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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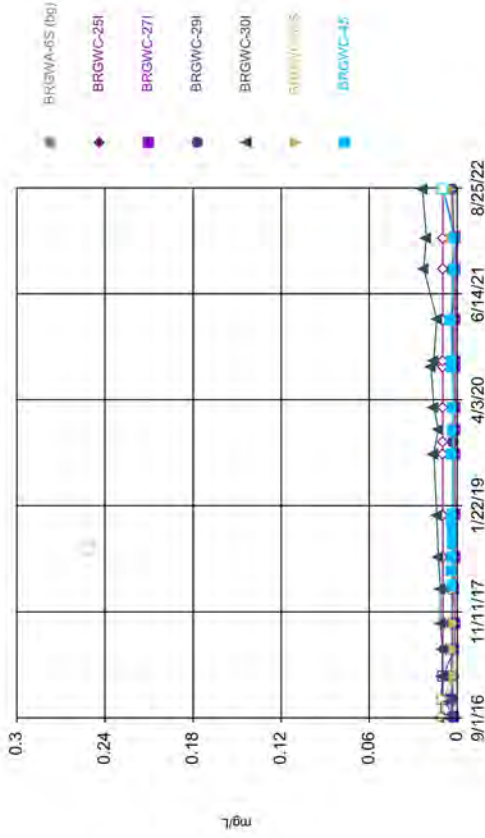
Time Series



Constituent: Lithium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
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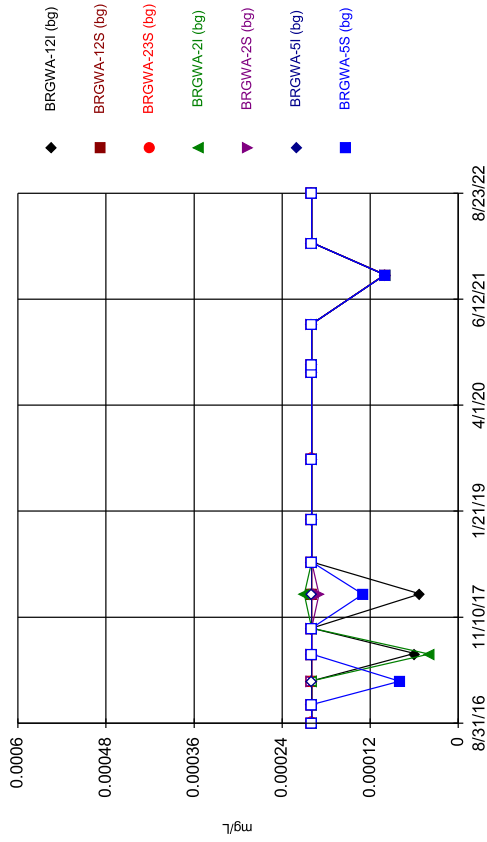
Time Series



Constituent: Lithium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

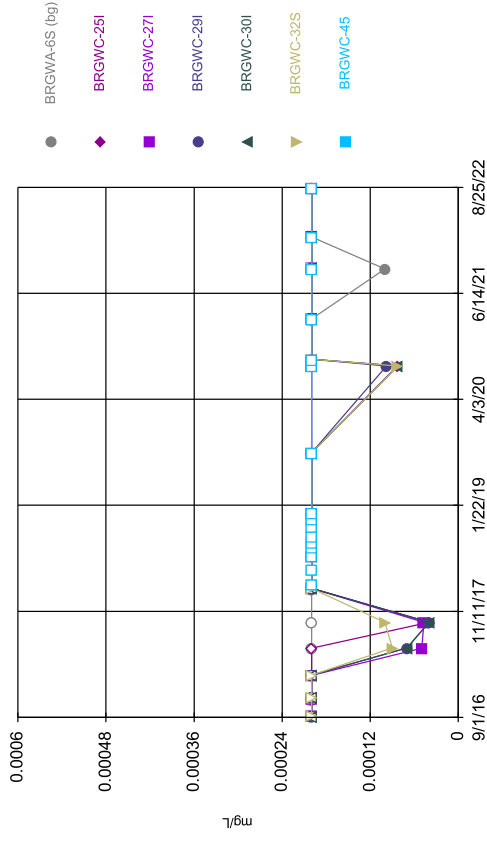
### Time Series



Constituent: Mercury Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

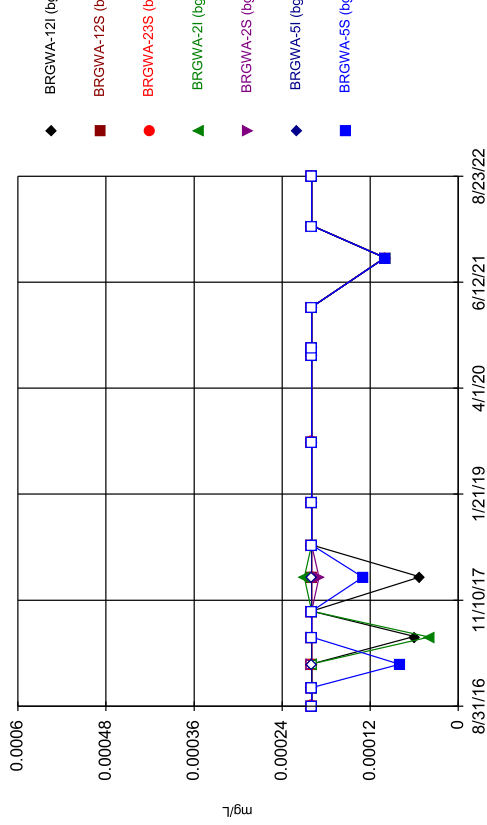
### Time Series



Constituent: Mercury Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

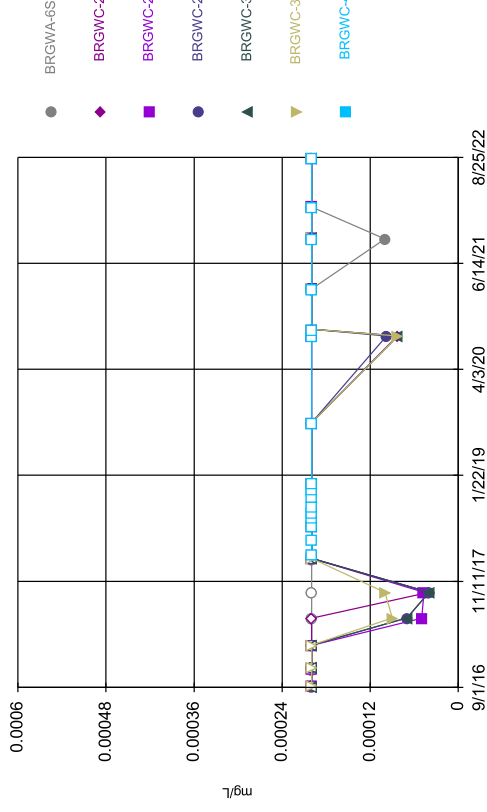
### Time Series



Constituent: Mercury Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

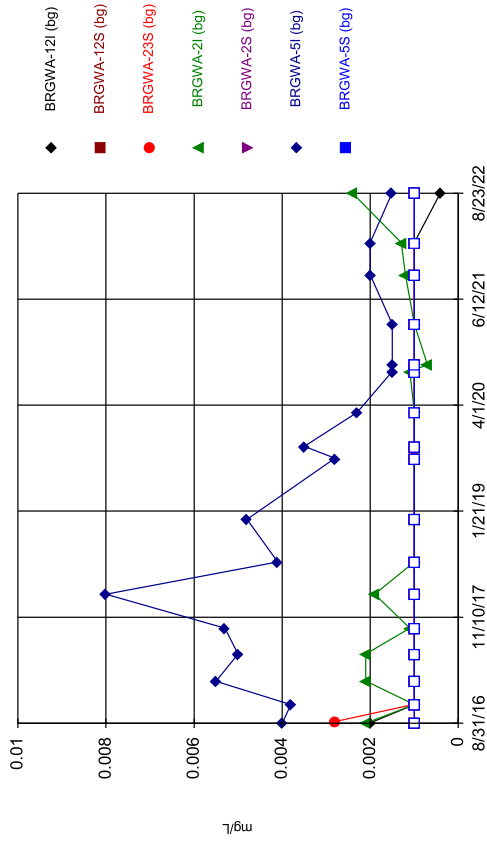
### Time Series



Constituent: Mercury Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

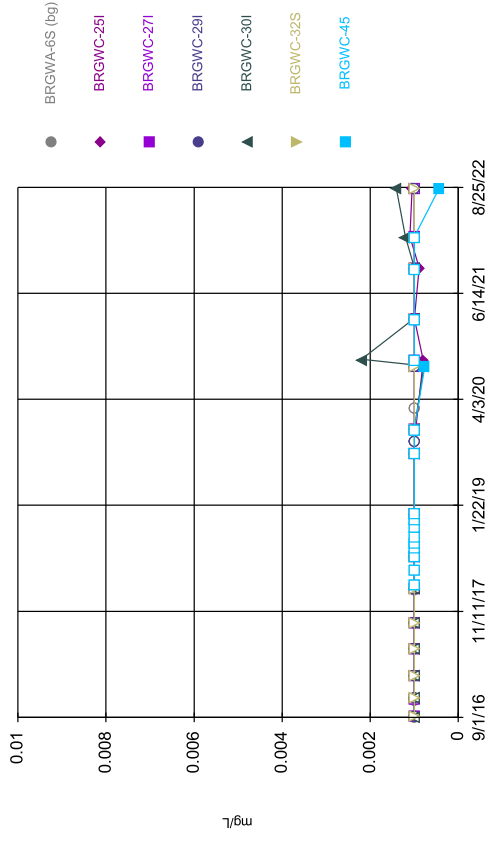
### Time Series



Constituent: Molybdenum Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

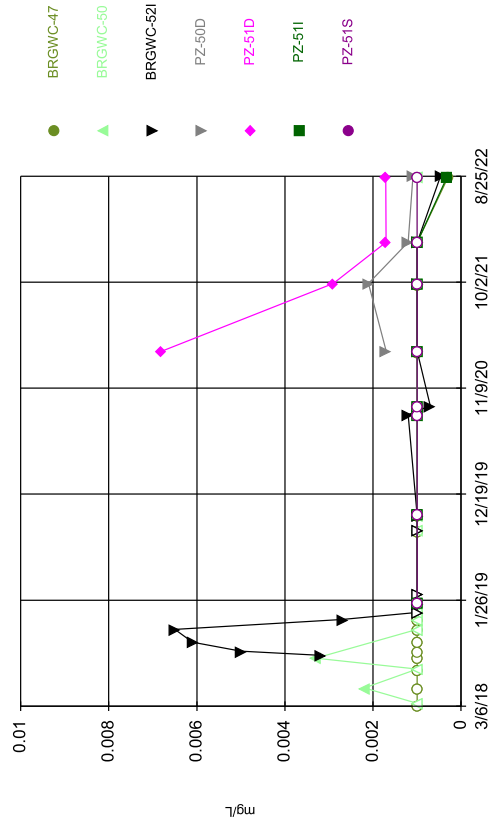
### Time Series



Constituent: Molybdenum Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

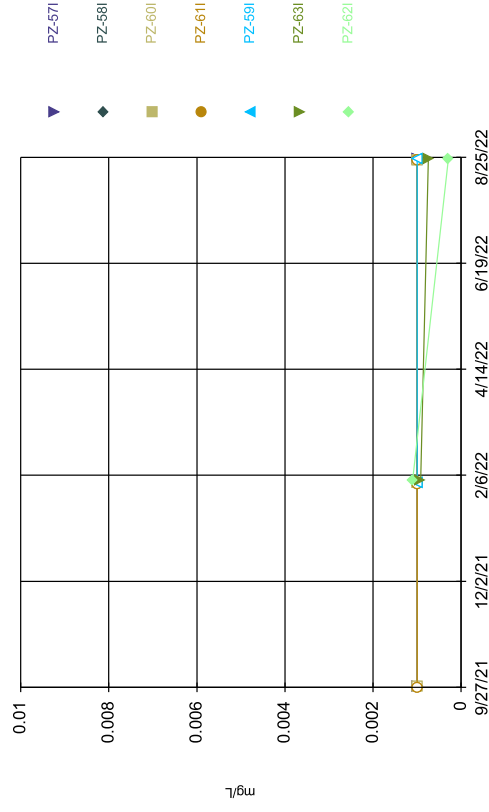
### Time Series



Constituent: Molybdenum Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

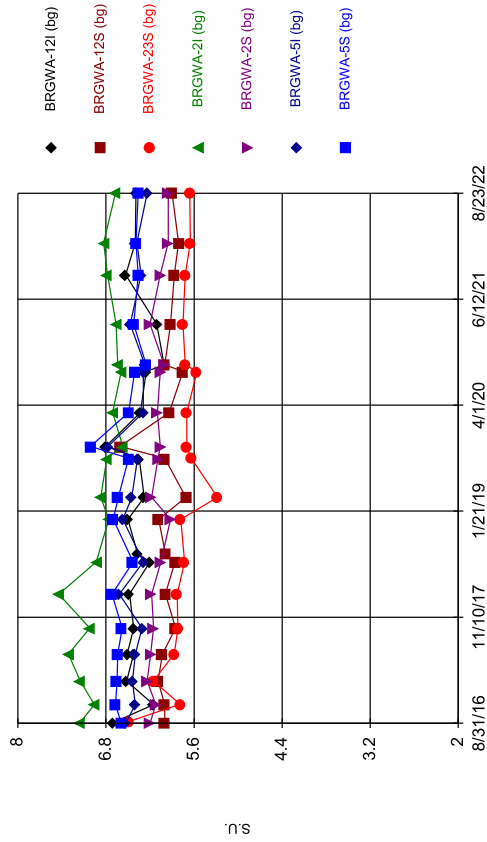
Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



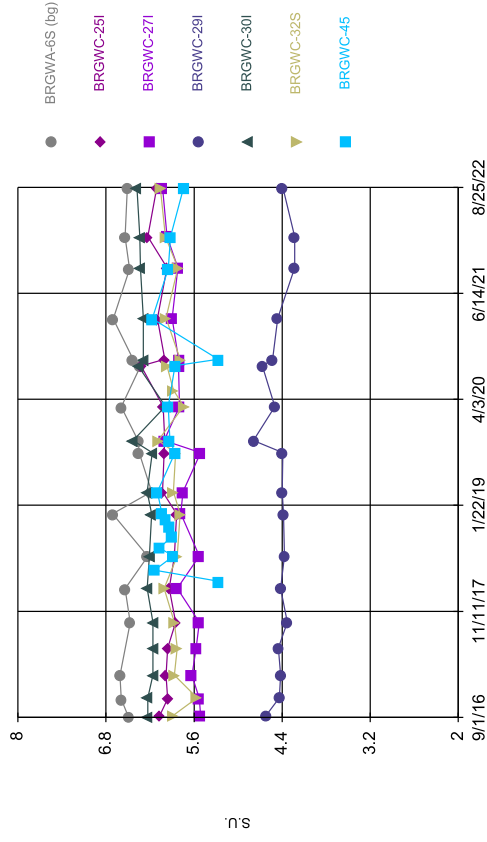
Constituent: Molybdenum Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



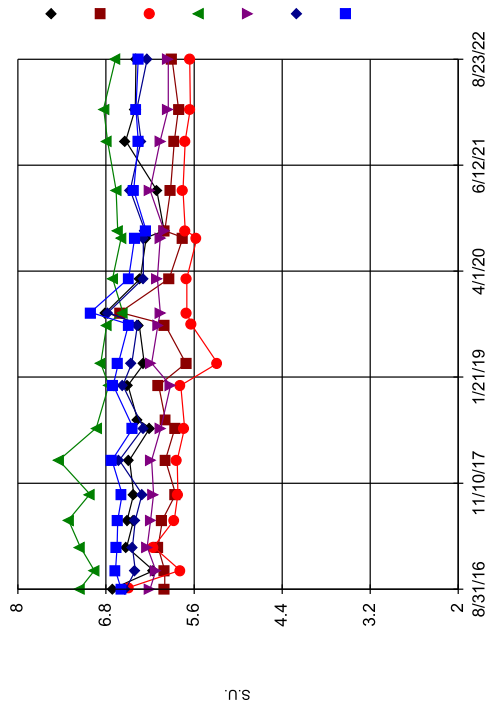
Constituent: pH, Field Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



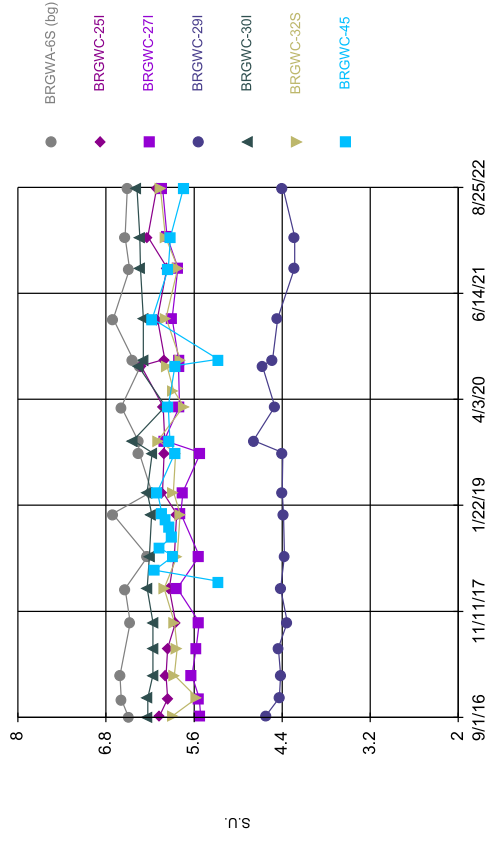
Constituent: pH, Field Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: pH, Field Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

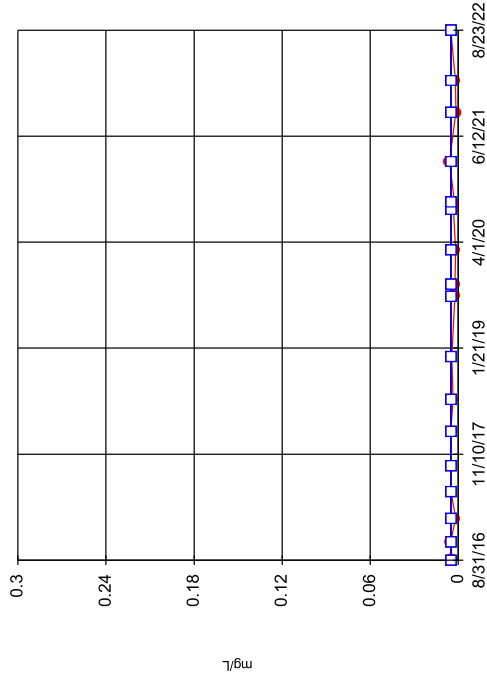
Time Series



Constituent: pH, Field Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

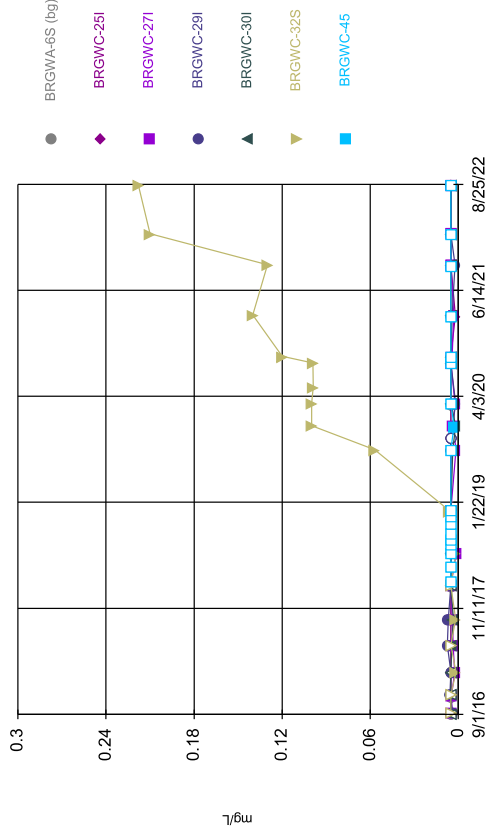
Time Series



Constituent: Selenium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

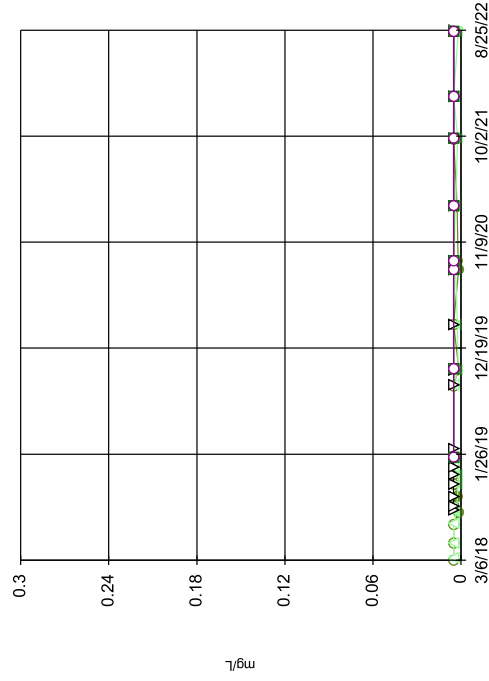
Time Series



Constituent: Selenium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

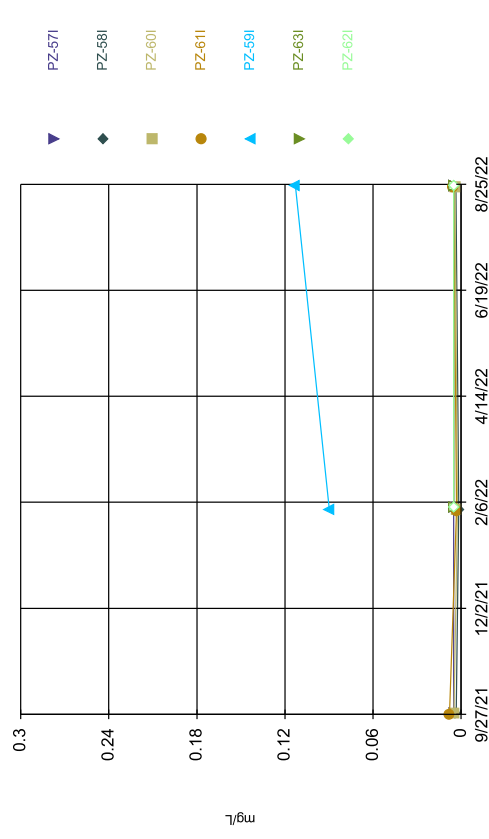
Time Series



Constituent: Selenium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

Time Series

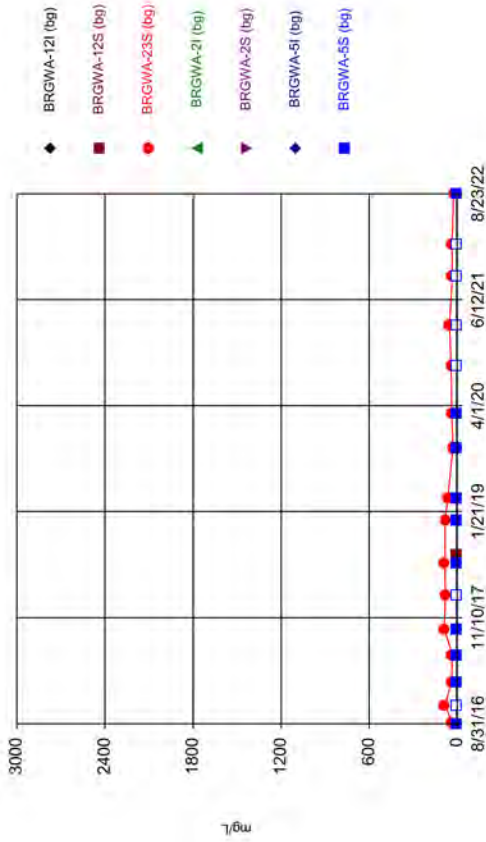


Constituent: Selenium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP



Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

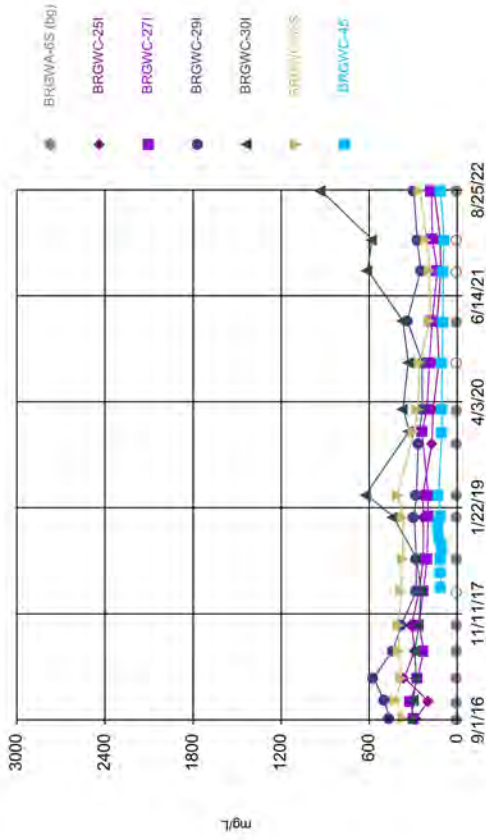
Time Series



Constituent: Sulfate Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

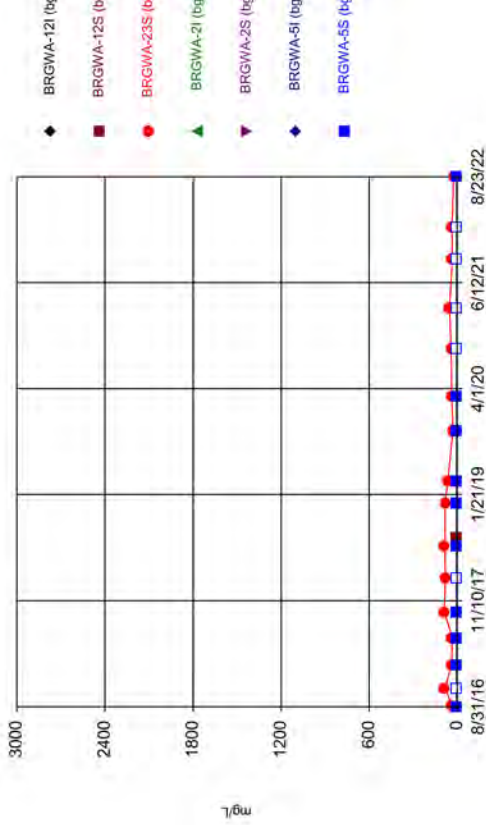
Time Series



Constituent: Sulfate Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

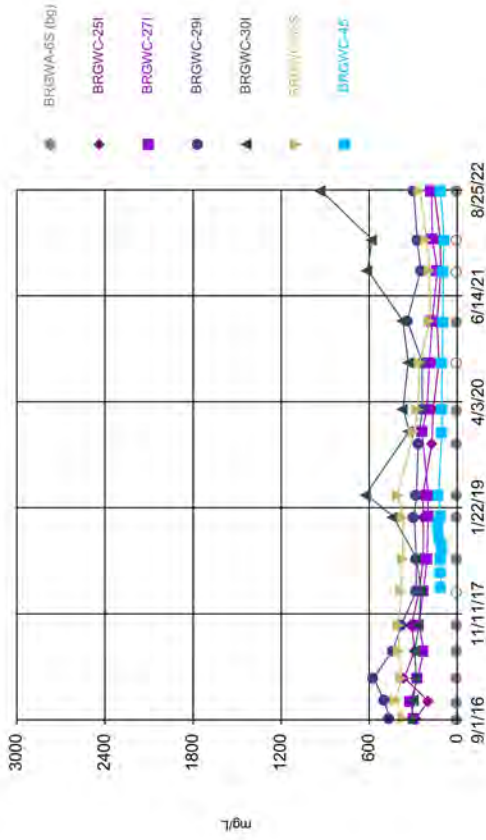
Time Series



Constituent: Sulfate Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sentia™ v9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

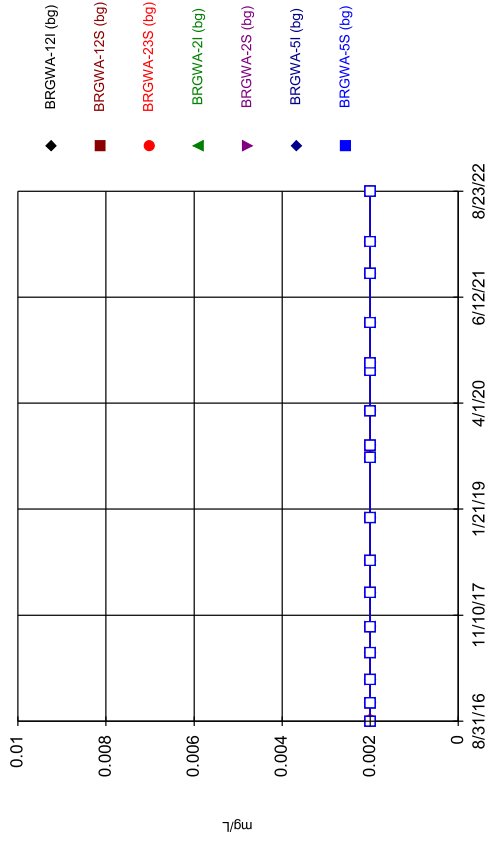
Time Series



Constituent: Sulfate Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

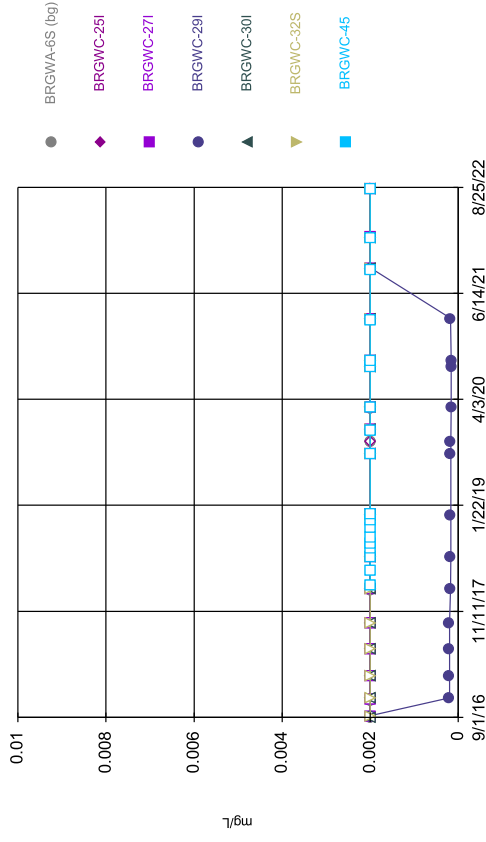
Time Series



Constituent: Thallium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

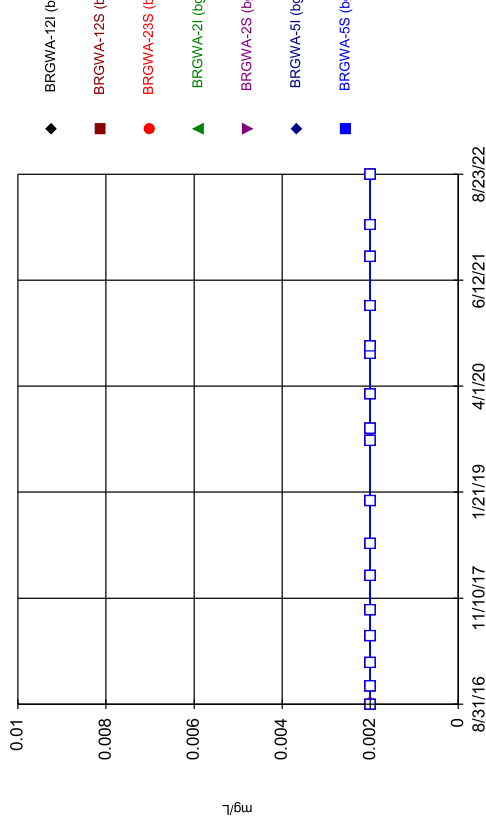
Time Series



Constituent: Thallium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

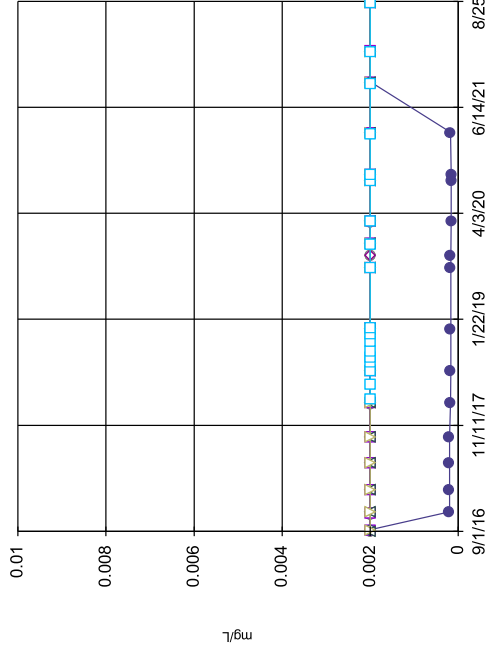
Time Series



Constituent: Thallium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

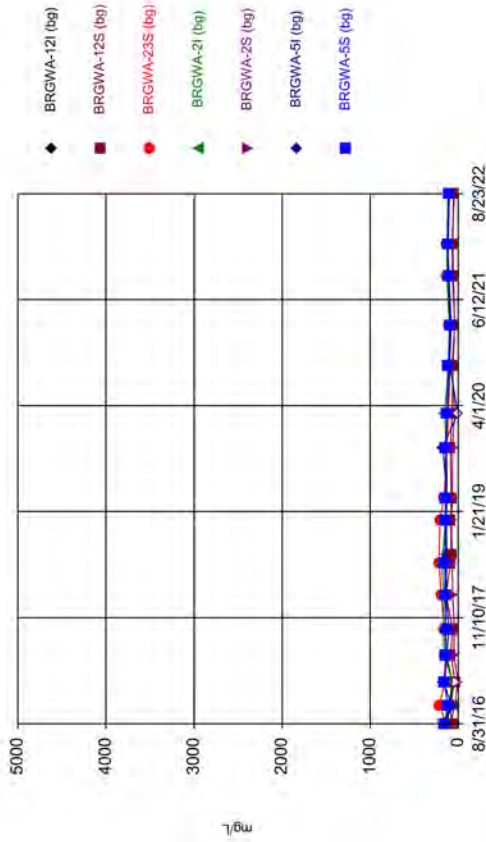
Time Series



Constituent: Thallium Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

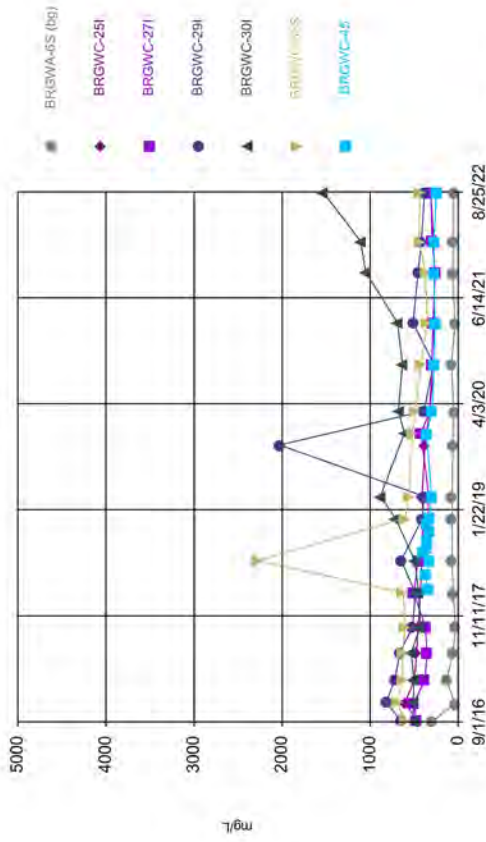


Time Series



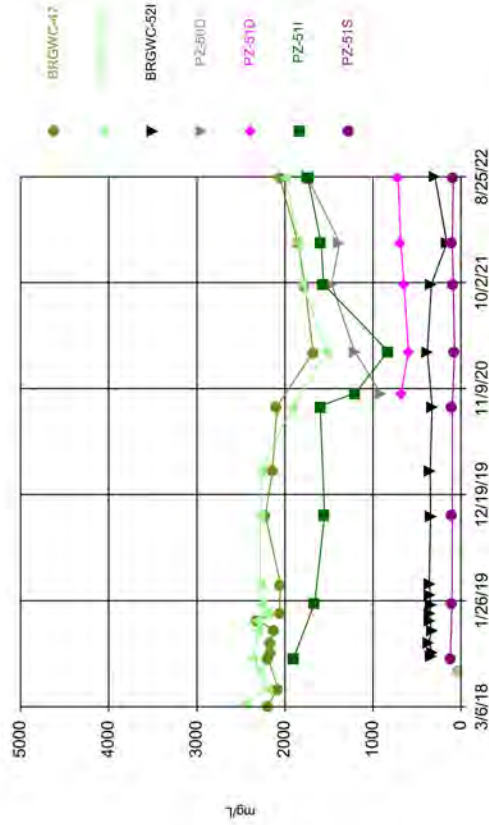
Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



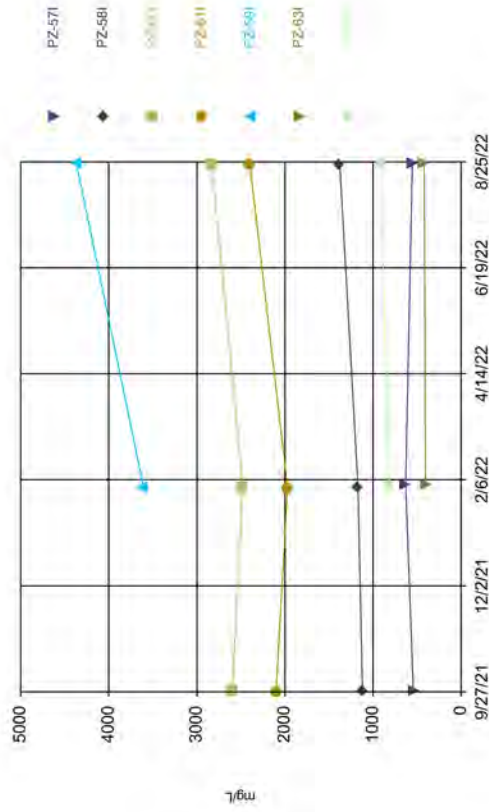
Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:43 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP



# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.003						
9/6/2016					<0.003		
9/8/2016		<0.003	<0.003	<0.003		<0.003	
11/15/2016	<0.003						
11/17/2016		<0.003					
11/18/2016			<0.003				
11/21/2016				<0.003	<0.003	<0.003	
2/20/2017	<0.003						
2/21/2017		<0.003	<0.003				
2/22/2017				<0.003	<0.003	<0.003	
6/12/2017	<0.003						
6/13/2017		<0.003	<0.003				
6/14/2017				0.0007 (J)	<0.003	<0.003	
9/26/2017	<0.003						
9/27/2017		<0.003	<0.003	<0.003	<0.003	<0.003	
2/13/2018	<0.003						
2/14/2018		<0.003	<0.003	<0.003	<0.003	<0.003	
3/6/2018							<0.003
5/1/2018							<0.003
6/26/2018	<0.003	<0.003					
6/27/2018			<0.003	<0.003		<0.003	
6/28/2018					<0.003		<0.003
7/31/2018							<0.003
8/23/2018							<0.003
9/19/2018							<0.003
10/29/2018							<0.003
11/28/2018							<0.003
12/18/2018	<0.003	<0.003		<0.003	<0.003		
12/19/2018						<0.003	
12/20/2018			<0.003				0.0024 (J)
8/27/2019	<0.003	<0.003			<0.003	<0.003	
8/28/2019			<0.003	<0.003			0.00046 (J)
10/15/2019	<0.003	<0.003					
10/16/2019				<0.003			
12/3/2019							0.00088 (J)
12/4/2019			<0.003		<0.003	<0.003	
3/3/2020	<0.003						
3/4/2020		<0.003	<0.003	<0.003			
3/5/2020					<0.003	0.0014 (J)	0.0016 (J)
8/18/2020	<0.003						
8/19/2020		<0.003	<0.003	<0.003	<0.003	<0.003	
8/20/2020							0.0031
9/15/2020	<0.003	<0.003		<0.003			
9/16/2020			<0.003		<0.003	<0.003	0.0012 (J)
3/1/2021	<0.003						
3/2/2021		<0.003					0.0014 (J)
3/3/2021			<0.003	<0.003	<0.003		
3/4/2021						<0.003	
9/22/2021	<0.003						
9/23/2021							<0.003
9/28/2021		<0.003	<0.003	<0.003	<0.003	<0.003	
2/1/2022	<0.003						

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		<0.003			0.0013 (J)	<0.003	<0.003
2/3/2022				<0.003			
2/4/2022			<0.003				
8/23/2022	<0.003	<0.003					
8/24/2022				<0.003	<0.003		
8/25/2022			<0.003			<0.003	<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.003						
3/15/2018		<0.003					
5/1/2018	<0.003 (D)	<0.003					
6/27/2018	<0.003						
6/28/2018		<0.003					
8/1/2018	<0.003	<0.003					
8/10/2018			<0.003				
8/23/2018	<0.003		0.00085 (J)				
9/19/2018	<0.003		<0.003				
10/29/2018	<0.003	<0.003	<0.003				
11/28/2018	<0.003	<0.003	<0.003				
12/19/2018	<0.003	<0.003					
12/20/2018			<0.003				
1/16/2019		<0.003					
1/17/2019			<0.003				
1/18/2019							<0.003
1/19/2019						<0.003	
2/13/2019			<0.003				
8/28/2019	<0.003						
8/29/2019		0.00052 (J)	<0.003				
10/16/2019	<0.003	<0.003	<0.003				
10/18/2019						<0.003	<0.003
3/4/2020	<0.003	<0.003	0.00043 (J)				
8/20/2020	<0.003	<0.003	<0.003			0.0017 (J)	<0.003
9/16/2020	0.00035 (J)						
9/17/2020		0.00041 (J)	<0.003			<0.003	0.00043 (J)
3/2/2021	<0.003						
3/3/2021					0.0013 (J)		0.0018 (J)
3/4/2021		0.00092 (J)	0.00091 (J)			0.00079 (J)	
3/5/2021				0.00056 (J)			
9/23/2021	<0.003						
9/27/2021		<0.003				0.0012 (J)	<0.003
9/28/2021			<0.003	<0.003	<0.003		
2/2/2022	<0.003		<0.003			<0.003	<0.003
2/3/2022		<0.003		<0.003	<0.003		
8/23/2022	<0.003						
8/24/2022		<0.003			<0.003	<0.003	<0.003
8/25/2022			<0.003	<0.003			

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				<0.003			
9/28/2021	<0.003	<0.003	<0.003				
2/2/2022				<0.003			
2/3/2022		<0.003	<0.003		<0.003		
2/4/2022	<0.003					<0.003	<0.003
8/24/2022		<0.003	<0.003	<0.003			
8/25/2022	<0.003				<0.003	<0.003	<0.003



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.005						
9/6/2016					<0.005		
9/8/2016		<0.005	<0.005	<0.005		<0.005	
11/15/2016	<0.005						
11/17/2016		<0.005					
11/18/2016			<0.005				
11/21/2016				0.0019 (J)	<0.005	<0.005	
2/20/2017	<0.005						
2/21/2017		<0.005	<0.005				
2/22/2017				<0.005	<0.005	<0.005	
6/12/2017	<0.005						
6/13/2017		0.0006 (J)	0.0009 (J)				
6/14/2017				0.002 (J)	<0.005	<0.005	
9/26/2017	0.0007 (J)						
9/27/2017		<0.005	0.0007 (J)	0.0016 (J)	<0.005	<0.005	
2/13/2018	<0.005						
2/14/2018		<0.005	<0.005	<0.005	<0.005	<0.005	
3/6/2018							<0.005 (X)
5/1/2018							0.0021 (J)
6/26/2018	<0.005	0.00072 (J)					
6/27/2018			<0.005	<0.005		<0.005	
6/28/2018					<0.005 (X)		<0.005 (X)
7/31/2018							<0.005
8/23/2018							0.00075 (J)
9/19/2018							<0.005
10/29/2018							<0.005
11/28/2018							0.00096 (J)
12/18/2018	<0.005 (X)	0.00091 (J)		<0.005	<0.005		
12/19/2018						<0.005	
12/20/2018			<0.005				<0.005
8/27/2019	<0.005	<0.005			<0.005	<0.005	
8/28/2019			0.0014 (J)	0.00051 (J)			0.00058 (J)
10/15/2019	<0.005	0.00052 (J)					
10/16/2019				0.00065 (J)			
12/3/2019							0.0007 (J)
12/4/2019			0.0011 (J)		0.00056 (J)	0.00053 (J)	
3/3/2020	0.0018 (J)						
3/4/2020		<0.005	<0.005	0.00044 (J)			
3/5/2020					<0.005	<0.005	<0.005
8/18/2020	<0.005						
8/19/2020		<0.005	<0.005	<0.005	<0.005	<0.005	
8/20/2020							<0.005
9/15/2020	<0.005	<0.005		<0.005			
9/16/2020			<0.005		<0.005	<0.005	<0.005
3/1/2021	<0.005						
3/2/2021		<0.005					<0.005
3/3/2021			<0.005	0.0015 (J)	<0.005		
3/4/2021						<0.005	
9/22/2021	<0.005						
9/23/2021							<0.005
9/28/2021		<0.005	<0.005	<0.005	<0.005	<0.005	
2/1/2022	<0.005						



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		<0.005			<0.005	<0.005	<0.005
2/3/2022				<0.005			
2/4/2022			<0.005				
8/23/2022	<0.005	<0.005					
8/24/2022				<0.005	0.00283 (J)		
8/25/2022			<0.005			<0.005	<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.005 (X)						
3/15/2018		0.0014 (J)					
5/1/2018	0.0018 (JD)	<0.005					
6/27/2018	0.0016 (J)						
6/28/2018		<0.005					
8/1/2018	0.0028 (J)	0.00074 (J)					
8/10/2018			<0.005				
8/23/2018	<0.005		<0.005				
9/19/2018	<0.005		0.0013 (J)				
10/29/2018	0.0012 (J)	<0.005	0.0038 (J)				
11/28/2018	0.0019 (J)	<0.005	0.0016 (J)				
12/19/2018	0.00075 (J)	<0.005					
12/20/2018			0.0032 (J)				
1/16/2019		<0.005					
1/17/2019			0.0032 (J)				
1/18/2019							<0.005
1/19/2019						<0.005	
2/13/2019			<0.005				
8/28/2019	0.0018 (J)						
8/29/2019		<0.005	0.00067 (J)				
10/16/2019	<0.005	<0.005	0.0026 (J)				
10/18/2019						<0.005	<0.005
3/4/2020	0.00049 (J)	0.00046 (J)	0.0047 (J)				
8/20/2020	0.00089 (J)	<0.005	0.0031 (J)			<0.005	<0.005
9/16/2020	<0.005						
9/17/2020		<0.005	<0.005			<0.005	<0.005
3/2/2021	<0.005						
3/3/2021					0.0014 (J)		<0.005
3/4/2021		<0.005	0.003 (J)			<0.005	
3/5/2021				0.00087 (J)			
9/23/2021	0.002 (J)						
9/27/2021		<0.005				<0.005	<0.005
9/28/2021			<0.005	<0.005	<0.005		
2/2/2022	0.0056		<0.005			<0.005	0.002 (J)
2/3/2022		<0.005		0.0012 (J)	0.0015 (J)		
8/23/2022	0.00228 (J)						
8/24/2022		0.0025 (J)			0.00308 (J)	0.00222 (J)	<0.005
8/25/2022			<0.005	0.00235 (J)			

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.0023 (J)			
9/28/2021	<0.005	<0.005	<0.005				
2/2/2022				<0.005			
2/3/2022		<0.005	<0.005		0.017		
2/4/2022	<0.005					<0.005	<0.005
8/24/2022		0.00245 (J)	0.00358 (J)	0.00295 (J)			
8/25/2022	<0.005				0.0221	<0.005	<0.005

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.0239	0.0099 (J)	0.0273	0.0495
9/1/2016	0.0454	0.0528					
9/6/2016			0.0624				
11/15/2016							0.0512
11/16/2016	0.0623	0.0509		0.0147	0.0102	0.0365	
11/17/2016			0.109				
2/20/2017						0.0336	0.0586
2/21/2017	0.0644	0.0531	0.095	0.0109	0.0094 (J)		
6/12/2017				0.0094 (J)		0.0322	0.0567
6/13/2017		0.0543	0.0861		0.0094 (J)		
6/14/2017	0.0726						
9/26/2017	0.0765	0.0547	0.104	0.0156	0.0096 (J)	0.0364	0.0586
2/13/2018				0.0134	0.0102	0.054	0.054
2/14/2018	0.0786	0.0603	0.129				
6/26/2018	0.063	0.059	0.13	0.014	0.0093 (J)	0.032	0.063
12/18/2018	0.067	0.056	0.13	0.0076 (J)	0.01	0.038	0.045
8/27/2019	0.058	0.057		0.012	0.0095 (J)	0.028	0.056
8/29/2019			0.076				
10/15/2019	0.06	0.053	0.069	0.013	0.0091 (J)	0.032	0.049
3/3/2020	0.076	0.06		0.017	0.011	0.028	0.051
3/4/2020			0.087				
8/18/2020	0.053	0.058	0.067	0.01 (J)	0.01	0.022	0.04
9/15/2020	0.059	0.058	0.086	0.0083 (J)	0.0094 (J)	0.022	0.038
3/1/2021				0.0074			
3/2/2021	0.053	0.063	0.097		0.0094	0.023	0.037
9/21/2021	0.074	0.06				0.025	0.038
9/22/2021			0.07	0.0075	0.0097		
2/1/2022	0.057	0.064	0.08	0.0066	0.01	0.028	0.04
8/23/2022	0.0602	0.0607	0.0573	0.00954	0.012	0.0241	0.0379

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	0.0142						
9/6/2016					0.0206		
9/8/2016		0.0378	0.0184	0.0199		0.0593	
11/15/2016	0.0126						
11/17/2016		0.0448					
11/18/2016			0.0173				
11/21/2016				0.0221 (J)	0.0237 (J)	0.0532 (BR)	
2/20/2017	0.0142						
2/21/2017		0.0447	0.015				
2/22/2017				0.0179	0.0219	0.0498	
6/12/2017	0.0134						
6/13/2017		0.0351	0.0143				
6/14/2017				0.0157	0.0197	0.0421	
9/26/2017	0.0133						
9/27/2017		0.0383	0.017	0.0165	0.0213	0.0411	
2/13/2018	0.0145						
2/14/2018		0.0327	0.0166	0.0163	0.0236	0.0417	
3/6/2018							0.1
5/1/2018							0.084
6/26/2018	0.014	0.031					
6/27/2018			0.015	0.017		0.038	
6/28/2018					0.023		0.067
7/31/2018							0.087 (J+X)
8/23/2018							0.084
9/19/2018							0.086
10/29/2018							0.098 (J+X)
11/28/2018							0.11
12/18/2018	0.013	0.03		0.017	0.029		
12/19/2018						0.036	
12/20/2018			0.015				0.093
8/27/2019	0.013	0.027			0.027	0.032	
8/28/2019			0.019	0.02			0.11
10/15/2019	0.013	0.027					
10/16/2019				0.019			
12/3/2019							0.099
12/4/2019			0.016		0.021	0.028	
3/3/2020	0.019						
3/4/2020		0.026	0.015	0.018			
3/5/2020					0.025	0.026	0.078
8/18/2020	0.014						
8/19/2020		0.027	0.016	0.019	0.026	0.025	
8/20/2020							0.083
9/15/2020	0.013	0.024		0.017			
9/16/2020			0.016		0.022	0.024	0.085
3/1/2021	0.016						
3/2/2021		0.026					0.061
3/3/2021			0.016	0.021	0.028		
3/4/2021						0.024	
9/22/2021	0.014						
9/23/2021							0.064
9/28/2021		0.023	0.013	0.017	0.035	0.02	
2/1/2022	0.014						

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		0.023			0.031	0.023	0.063
2/3/2022				0.016			
2/4/2022			0.015				
8/23/2022	0.014	0.0259					
8/24/2022				0.0175	0.0389		
8/25/2022			0.0161			0.0231	0.0574

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	0.0519						
3/15/2018		0.021					
5/1/2018	0.057 (D)	0.024					
6/27/2018	0.046						
6/28/2018		0.021					
8/1/2018	0.043 (J+X)	0.02 (J+X)					
8/10/2018			0.038				
8/23/2018	0.038		0.03 (JX)				
9/19/2018	0.036		0.03				
10/29/2018	0.041 (J+X)	0.019 (J+X)	0.025 (J+X)				
11/28/2018	0.039	0.02	0.017				
12/19/2018	0.04	0.02					
12/20/2018			0.013				
1/16/2019		0.02					
1/17/2019			0.017				
1/18/2019							0.031
1/19/2019						0.017	
2/13/2019			0.025				
8/28/2019	0.035						
8/29/2019		0.018	0.017				
10/16/2019	0.032	0.017	0.015				
10/18/2019						0.014	0.032
3/4/2020	0.038	0.019	0.022				
8/20/2020	0.035	0.019	0.017			0.013	0.03
9/16/2020	0.028						
9/17/2020		0.02	0.02			0.015	0.033
3/2/2021	0.036						
3/3/2021					0.08		0.037
3/4/2021		0.025	0.019			0.016	
3/5/2021				0.043			
9/23/2021	0.031						
9/27/2021		0.017				0.014	0.025
9/28/2021			0.013	0.034	0.057		
2/2/2022	0.028		0.013			0.015	0.027
2/3/2022		0.016		0.033	0.057		
8/23/2022	0.0285						
8/24/2022		0.0166			0.0584	0.0154	0.0223
8/25/2022			0.0179	0.0257			

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.029			
9/28/2021	0.022	0.017	0.022				
2/2/2022				0.015			
2/3/2022		0.016	0.021		0.013		
2/4/2022	0.024					0.037	0.058
8/24/2022		0.0181	0.0226	0.0133			
8/25/2022	0.0219				0.0121 (J)	0.023	0.0259





# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.0005						
9/6/2016					<0.0005		
9/8/2016		<0.0005	0.0002 (J)	0.0011 (J)		<0.0005	
11/15/2016	<0.0005						
11/17/2016		<0.0005					
11/18/2016			0.0002 (J)				
11/21/2016				0.0012 (J)	<0.0005	<0.0005	
2/20/2017	<0.0005						
2/21/2017		<0.0005	0.0002 (J)				
2/22/2017				0.0014 (J)	<0.0005	<0.0005	
6/12/2017	<0.0005						
6/13/2017		<0.0005	0.0002 (J)				
6/14/2017				0.0012 (J)	<0.0005	<0.0005	
9/26/2017	<0.0005						
9/27/2017		<0.0005	0.0001 (J)	0.001 (J)	<0.0005	<0.0005	
2/13/2018	<0.0005						
2/14/2018		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
3/6/2018							<0.0005
5/1/2018							<0.0005
6/26/2018	<0.0005	<0.0005					
6/27/2018			0.00014 (J)	0.0008 (J)		<0.0005	
6/28/2018					<0.0005		<0.0005
7/31/2018							<0.0005
8/23/2018							7.9E-05 (J)
9/19/2018							<0.0005
10/29/2018							<0.0005
11/28/2018							<0.0005
12/18/2018	<0.0005	<0.0005		0.00071 (J)	<0.0005		
12/19/2018						<0.0005	
12/20/2018			<0.0005 (X)				<0.0005
8/27/2019	<0.0005	<0.0005			<0.0005	<0.0005	
8/28/2019			0.00012 (J)	0.0008 (J)			<0.0005
10/15/2019	<0.0005	<0.0005					
10/16/2019				0.00072 (J)			
10/17/2019			<0.0005		<0.0005	<0.0005	<0.0005
12/3/2019							<0.0005
12/4/2019			0.00012 (J)		<0.0005	<0.0005	
3/3/2020	<0.0005						
3/4/2020		<0.0005	0.00012 (J)	0.00073 (J)			
3/5/2020					<0.0005	<0.0005	<0.0005
8/18/2020	<0.0005						
8/19/2020		<0.0005	9.9E-05 (J)	0.00074 (J)	<0.0005	<0.0005	
8/20/2020							4.6E-05 (J)
9/15/2020	<0.0005	<0.0005		0.00071 (J)			
9/16/2020			0.00011 (J)		<0.0005	<0.0005	<0.0005
3/1/2021	<0.0005						
3/2/2021		<0.0005					<0.0005
3/3/2021			7.1E-05 (J)	0.00094	<0.0005		
3/4/2021						<0.0005	
9/22/2021	<0.0005						
9/23/2021							<0.0005
9/28/2021		<0.0005	<0.0005	0.00079	<0.0005	<0.0005	

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/1/2022	<0.0005						
2/2/2022		<0.0005			<0.0005	<0.0005	<0.0005
2/3/2022				0.00083			
2/4/2022			5.4E-05 (J)				
8/23/2022	<0.0005	<0.0005					
8/24/2022				0.000845	<0.0005		
8/25/2022			<0.0005			<0.0005	<0.0005

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.0005						
3/15/2018		<0.0005					
5/1/2018	<0.0005 (D)	<0.0005					
6/27/2018	<0.0005						
6/28/2018		0.003 (J)					
8/1/2018	<0.0005	0.0025 (J)					
8/10/2018			<0.0005				
8/23/2018	5.5E-05 (J)		<0.0005				
9/19/2018	<0.0005		<0.0005				
10/29/2018	<0.0005	0.0042	<0.0005				
11/28/2018	5.6E-05 (J)	0.0029 (J)	<0.0005				
12/19/2018	<0.0005 (X)	0.0043					
12/20/2018			<0.0005				
1/16/2019		0.0038					
1/17/2019			<0.0005				
1/18/2019							<0.0005
1/19/2019						6.4E-05 (J)	
2/13/2019			<0.0005				
8/28/2019	<0.0005						
8/29/2019		0.0029 (J)	<0.0005				
10/16/2019	<0.0005	0.0027 (J)	<0.0005				
10/18/2019						<0.0005	<0.0005
3/4/2020	<0.0005	0.0052	<0.0005				
8/20/2020	4.7E-05 (J)	0.0044	<0.0005			7.7E-05 (J)	<0.0005
9/16/2020	<0.0005						
9/17/2020		0.0065	<0.0005			9.6E-05 (J)	<0.0005
3/2/2021	<0.0005						
3/3/2021					<0.0005		<0.0005
3/4/2021		0.0059	<0.0005			9.7E-05 (J)	
3/5/2021				<0.0005			
9/23/2021	<0.0005						
9/27/2021		0.006				7.1E-05 (J)	<0.0005
9/28/2021			<0.0005	5.9E-05 (J)	<0.0005		
2/2/2022	<0.0005		<0.0005			7.1E-05 (J)	<0.0005
2/3/2022		0.0071		<0.0005	<0.0005		
8/23/2022	<0.0005						
8/24/2022		0.00831			<0.0005	<0.0005	<0.0005
8/25/2022			<0.0005	0.000269 (J)			

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.0017			
9/28/2021	0.00031 (J)	0.025	0.065				
2/2/2022				0.0015			
2/3/2022		0.027	0.072		0.12		
2/4/2022	0.00054					<0.0005	<0.0005
8/24/2022		0.0335	0.0703	0.00198			
8/25/2022	0.000393 (J)				0.1	<0.0005	0.000219 (J)

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.0072 (J)	<0.015	<0.015	<0.015
9/1/2016	0.0093 (J)	<0.015					
9/6/2016			0.0362 (J)				
11/15/2016							0.0085 (J)
11/16/2016	0.0127 (J)	0.0081 (J)		0.0117 (J)	0.0109 (J)	0.0187 (J)	
11/17/2016			0.0617				
2/20/2017						0.0066 (J)	0.0093 (J)
2/21/2017	0.0071 (J)	<0.015	0.0245 (J)	0.0088 (J)	<0.015		
6/12/2017				0.0133 (J)		<0.015	<0.015
6/13/2017		<0.015	<0.015		<0.015		
6/14/2017	0.0078 (J)						
9/26/2017	<0.015	<0.015	<0.015	0.0093 (J)	<0.015	<0.015	<0.015
2/13/2018				0.0141 (J)	<0.015	<0.015	<0.015
2/14/2018	0.0068 (J)	<0.015	0.0314 (J)				
6/26/2018	0.008 (J)	<0.015	0.062	0.012 (J)	<0.015	0.0042 (J)	0.0056 (J)
12/18/2018	0.0083 (J)	0.0053 (J)	0.055	0.0086 (J)	<0.015	<0.015	0.0062 (J)
3/19/2019	0.008 (J)	<0.015	0.068	0.00565 (JD)	<0.015	<0.015	<0.015
10/15/2019	0.006 (J)	<0.015	0.022 (J)	0.0067 (J)	<0.015	<0.015	0.006 (J)
3/3/2020	0.01 (J)	0.0065 (J)		0.0082 (J)	<0.015	<0.015	<0.015
3/4/2020			0.044 (J)				
9/15/2020	0.0071 (J)	<0.015	0.033 (J)	<0.015	<0.015	<0.015	<0.015
3/1/2021				<0.015			
3/2/2021	0.0057 (J)	<0.015	0.042		<0.015	0.0053 (J)	0.0071 (J)
9/21/2021	<0.015	<0.015				<0.015	<0.015
9/22/2021			0.047	<0.015	<0.015		
2/1/2022	<0.015	<0.015	0.046	<0.015	<0.015	<0.015	<0.015
8/23/2022	0.00653 (J)	<0.015	0.0498	0.00592 (J)	0.00532 (J)	<0.015	0.00538 (J)

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.015						
9/6/2016					1.96		
9/8/2016		1.03	1.63	1.35		1.28	
11/15/2016	0.0123 (J)						
11/17/2016		1.7					
11/18/2016			1.91				
11/21/2016				1.74	1.68	1.19	
2/20/2017	0.0157 (J)						
2/21/2017		1.55	1.39				
2/22/2017				1.5	1.48	1.43	
6/12/2017	<0.015						
6/13/2017		1.77	1.62				
6/14/2017				1.6	1.71	1.57	
9/26/2017	<0.015						
9/27/2017		1.75	1.16	1.83	1.61	1.51	
2/13/2018	<0.015						
2/14/2018		1.47	1.17	1.8	1.47	1.6	
3/6/2018							0.0198 (J)
5/1/2018							0.015 (J)
6/26/2018	0.0041 (J)	1.8					
6/27/2018			1.4 (J+X)	1.8 (J+X)		1.5 (J+X)	
6/28/2018					1.4		<0.015 (X)
7/31/2018							0.035 (J)
8/23/2018							0.022 (J)
9/19/2018							0.021 (J)
10/29/2018							0.021 (J)
11/28/2018							<0.015 (X)
12/18/2018	<0.015	1.5		1.5	1.6		
12/19/2018						1.6	
12/20/2018			1.4				0.028 (J)
3/19/2019	<0.015		1.1				
3/20/2019		1.5 (D)		1.5	1.7	1.4	0.043
10/15/2019	0.01 (J)	1.2					
10/16/2019				1.2			
10/17/2019			0.97		1.7	1.5	0.064
12/3/2019							0.027 (J)
12/4/2019			0.89		1.6	1.6	
3/3/2020	<0.015						
3/4/2020		1.2	0.81	1.1			
3/5/2020					1.5	1.5	0.044 (J)
9/15/2020	<0.015	1.2		1.1			
9/16/2020			1.2		1.7	1.4	0.028 (J)
3/1/2021	<0.015						
3/2/2021		1.1					0.044
3/3/2021			0.91	1	1.4		
3/4/2021						1.1	
9/22/2021	<0.015						
9/23/2021							0.029 (J)
9/28/2021		1.1	0.95	0.9	1.7	0.91	
2/1/2022	<0.015						
2/2/2022		1.1			1.9	1	0.034 (J)
2/3/2022				0.93			

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/4/2022			1				
8/23/2022	<0.015	1.38					
8/24/2022				1.13	2.15		
8/25/2022			1.03			1.07	0.0458



# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	0.428						
3/15/2018		0.32					
5/1/2018	0.435 (D)	0.32					
6/27/2018	0.49 (J+X)						
6/28/2018		0.34					
8/1/2018	0.39	0.28					
8/2/2018							0.016 (J)
8/3/2018						0.3	
8/10/2018			1.3				
8/23/2018	0.39		1.4				
9/19/2018	0.43		1.7				
10/29/2018	0.4	0.3	1.3				
11/28/2018	0.51	0.35	1.5				
12/19/2018	0.41	0.35					
12/20/2018			1.6				
1/16/2019		0.37					
1/17/2019			1.5				
1/18/2019							0.0057 (J)
1/19/2019						0.39	
2/13/2019			1.7				
3/19/2019	0.41						
3/20/2019		0.34	1.6 (D)				
10/16/2019	0.36	0.31	1.3				
10/18/2019						0.38	0.0057 (J)
3/4/2020	0.49	0.32	1.4				
9/16/2020	0.47						
9/17/2020		0.36	1.9			0.43	0.0063 (J)
10/27/2020				0.15	0.029 (J)	0.37	
3/2/2021	0.58						
3/3/2021					0.028 (J)		0.0096 (J)
3/4/2021		0.31	1.4			0.36	
3/5/2021				0.2			
9/23/2021	0.47						
9/27/2021		0.32				0.39	<0.015
9/28/2021			1.4	0.24	0.023 (J)		
2/2/2022	0.48		1.5			0.42	<0.015
2/3/2022		0.31		0.22	0.034 (J)		
8/23/2022	0.547						
8/24/2022		0.406			0.036	0.459	0.00563 (J)
8/25/2022			1.56	0.278			

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.26			
9/28/2021	0.48	0.36	0.23				
2/2/2022				0.32			
2/3/2022		0.38	0.25		0.055 (J)		
2/4/2022	0.51					0.67	0.5
8/24/2022		0.464	0.293	0.277			
8/25/2022	0.496				0.055	0.672	0.473



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.001						
9/6/2016					<0.001		
9/8/2016		<0.001	7E-05 (J)	<0.001		<0.001	
11/15/2016	<0.001						
11/17/2016		<0.001					
11/18/2016			9E-05 (J)				
11/21/2016				<0.001	8E-05 (J)	8E-05 (J)	
2/20/2017	<0.001						
2/21/2017		<0.001	<0.001				
2/22/2017				<0.001	<0.001	0.0001 (J)	
6/12/2017	<0.001						
6/13/2017		<0.001	<0.001				
6/14/2017				<0.001	<0.001	<0.001	
9/26/2017	<0.001						
9/27/2017		<0.001	<0.001	<0.001	<0.001	<0.001	
2/13/2018	<0.001						
2/14/2018		<0.001	<0.001	<0.001	<0.001	<0.001	
3/6/2018							<0.001
5/1/2018							<0.001
6/26/2018	<0.001	<0.001					
6/27/2018			<0.001	<0.001		0.00011 (J)	
6/28/2018					<0.001		<0.001
7/31/2018							<0.001
8/23/2018							<0.001
9/19/2018							<0.001
10/29/2018							9.8E-05 (J)
11/28/2018							<0.001
12/18/2018	<0.001	<0.001		<0.001	<0.001		
12/19/2018						<0.001 (X)	
12/20/2018			<0.001				<0.001 (X)
8/27/2019	<0.001	<0.001			<0.001	<0.001	
8/28/2019			<0.001	<0.001			<0.001
10/15/2019	<0.001	<0.001					
10/16/2019				<0.001			
10/17/2019			<0.001		<0.001	<0.001	<0.001
12/3/2019							0.00011 (J)
12/4/2019			<0.001		<0.001	<0.001	
3/3/2020	<0.001						
3/4/2020		<0.001	<0.001	<0.001			
3/5/2020					<0.001	<0.001	<0.001
8/18/2020	<0.001						
8/19/2020		<0.001	<0.001	<0.001	<0.001	<0.001	
8/20/2020							0.00014 (J)
9/15/2020	<0.001	<0.001		<0.001			
9/16/2020			<0.001		<0.001	<0.001	<0.001
3/1/2021	<0.001						
3/2/2021		<0.001					0.0002 (J)
3/3/2021			<0.001	<0.001	<0.001		
3/4/2021						<0.001	
9/22/2021	<0.001						
9/23/2021							<0.001
9/28/2021		<0.001	<0.001	<0.001	<0.001	<0.001	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/1/2022	<0.001						
2/2/2022		<0.001			0.00014 (J)	<0.001	<0.001
2/3/2022				<0.001			
2/4/2022			<0.001				
8/23/2022	<0.001	<0.001					
8/24/2022				<0.001	<0.001		
8/25/2022			<0.001			<0.001	<0.001

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.001						
3/15/2018		0.038					
5/1/2018	<0.001 (D)	0.011					
6/27/2018	0.00014 (J)						
6/28/2018		0.087					
8/1/2018	0.00011 (J)	0.042					
8/2/2018							<0.001
8/3/2018						0.0015	
8/10/2018			<0.001				
8/23/2018	0.00018 (J)		<0.001				
9/19/2018	0.00015 (J)		<0.001				
10/29/2018	0.00019 (J)	0.083	<0.001				
11/28/2018	0.00022 (J)	0.031	<0.001				
12/19/2018	<0.001	0.042					
12/20/2018			<0.001				
1/16/2019		0.028					
1/17/2019			<0.001				
1/18/2019							<0.001
1/19/2019						0.0016	
2/13/2019			<0.001				
8/28/2019	0.00017 (J)						
8/29/2019		0.0071	<0.001				
10/16/2019	0.00018 (J)	0.014	<0.001				
10/18/2019						0.00083 (J)	<0.001
3/4/2020	0.00024 (J)	0.013	<0.001				
8/20/2020	<0.001	0.0079	<0.001			0.0019 (J)	<0.001
9/16/2020	<0.001						
9/17/2020		0.021	<0.001			0.033	<0.001
10/27/2020				<0.001	<0.001	0.0051	
3/2/2021	<0.001						
3/3/2021					<0.001		<0.001
3/4/2021		0.019	<0.001			0.017	
3/5/2021				<0.001			
9/23/2021	<0.001						
9/27/2021		0.0095				0.0031	<0.001
9/28/2021			<0.001	<0.001	<0.001		
2/2/2022	0.00015 (J)		<0.001			0.0043	<0.001
2/3/2022		0.0085		<0.001	<0.001		
8/23/2022	<0.001						
8/24/2022		0.00818			<0.001	0.00478	<0.001
8/25/2022			<0.001	<0.001			

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.00081			
9/28/2021	0.00064	0.0042	0.016				
2/2/2022				0.00014 (J)			
2/3/2022		0.0038	0.016		0.006		
2/4/2022	0.00072					<0.001	0.0004 (J)
8/24/2022		0.0046	0.017	0.000859 (J)			
8/25/2022	<0.001				0.00536	<0.001	0.000618 (J)

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				12.6	4.09	13.5	19.6
9/1/2016	8.98	4.61					
9/6/2016			12.8				
11/15/2016							21.7
11/16/2016	15.4	4.17		12.1	4.25	14.9	
11/17/2016			19.2				
2/20/2017						13.9	21.1
2/21/2017	17.4	5	15.1	11.4	4.02		
6/12/2017				9.34		13.7	21.5
6/13/2017		4.98	10.2		3.84		
6/14/2017	18.1						
9/26/2017	19.3	4.49	15	14.3	3.31	14.4	24
2/13/2018				<25	3.94	<25	<25
2/14/2018	<25	<25	<25				
6/26/2018	15.5 (J)	6.4	18.5 (J)	16 (J)	3.6	13.5 (J)	23.5 (J)
7/31/2018	18.2 (J)	6.1					
12/18/2018	18.7 (J)	5.5	16.8 (J)	14.5 (J)	3.8	16.4 (J)	19.8 (J)
3/19/2019	15.9 (J)	5.9	13.5 (J)	14.3 (JD)	3.9	12.3 (J)	21.4 (J)
10/15/2019	15.9	6.2	8.6	15.1	3.7	14.4	20
3/3/2020	19.4	6.8		20	4	14.9	23.2
3/4/2020			11.5				
9/15/2020	14.5	5.7	10.7	14.1	3.9	12.7	16.8
3/1/2021				15.4			
3/2/2021	11.7	5.4	11.6		4	13.2	16.8
9/21/2021	16.4	5.4				14.1	19.1
9/22/2021			9.2	15.9	4.3		
2/1/2022	14.2	5.3	10.7	14.4	4.4	14.5	19.1
8/23/2022	15.8	6.09	8.09	13.9	4.65	14.3	18.2



# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	3.3						
9/6/2016					63.3		
9/8/2016		59.4	87.2	93.9		60.5	
11/15/2016	3.44						
11/17/2016		78.4					
11/18/2016			82.4				
11/21/2016				99.1	60.7	31.1	
2/20/2017	3.52						
2/21/2017		80.9	75.1				
2/22/2017				105	62.1	67.3	
6/12/2017	3.11						
6/13/2017		62	61				
6/14/2017				91.3	63.5	60.2	
9/26/2017	3.15						
9/27/2017		65.8	72.6	84	63.5	68.4	
2/13/2018	3.65						
2/14/2018		58.8	74.1	72.1	62.8	70.2	
3/6/2018							39.5
5/1/2018							45.5
6/26/2018	3.3	55.5					
6/27/2018			68.2	61.1		67.1	
6/28/2018					73.3		41.9
7/31/2018							41.5
8/23/2018							42.3
9/19/2018							41.9
10/29/2018							40.8
11/28/2018							45.1
12/18/2018	3.5	54.7		52.9	102		
12/19/2018						61.2	
12/20/2018			63.9				39
3/19/2019	3.6		60.2				
3/20/2019		53.95 (D)		55.4	141	52.8	31.2
10/15/2019	3.5	48.3					
10/16/2019				54			
12/3/2019							43.7
12/4/2019			76.8		92.6	52.7	
3/3/2020	5						
3/4/2020		52	72.3	59.3			
3/5/2020					119	52.1	37.9
9/15/2020	3.7	40.1		55.1			
9/16/2020			62.5		106	43.1	39.7
3/1/2021	4.2						
3/2/2021		44.1					33.9
3/3/2021			58.2	73.3	122		
3/4/2021						35.7	
9/22/2021	4.1						
9/23/2021							32
9/28/2021		38.4	50.4	59.5	212	33.9	
2/1/2022	4.2						
2/2/2022		44.3			232	44.2	33.8
2/3/2022				58.7			
2/4/2022			61.7				

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
8/23/2022	3.97	51.5					
8/24/2022				61	316		
8/25/2022			64			48.5	33.5

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	326						
3/15/2018		233					
5/1/2018	302 (D)	225					
6/27/2018	340						
6/28/2018		242					
8/1/2018	358	246					
8/10/2018			410 (O)				
8/23/2018	323		33.9				
9/19/2018	321		42.3				
10/29/2018	326	236	39.8				
11/28/2018	354	254	38.2				
12/19/2018	330	252					
12/20/2018			43.2				
1/16/2019		248					
1/17/2019			39.4				
1/18/2019							9.1
1/19/2019						196	
2/13/2019			36.9				
3/19/2019	335						
3/20/2019		222	40.85 (D)				
10/16/2019	338	241	48.4				
10/18/2019						177	7.1
3/4/2020	353	245	49.5				
9/16/2020	309						
9/17/2020		206	35.4			168	7.7
10/27/2020				159	132	183	
3/2/2021	353						
3/3/2021					119		7.9
3/4/2021		214	47.5			182	
3/5/2021				207			
9/23/2021	336						
9/27/2021		196				187	7.5
9/28/2021			39.5	225	113		
2/2/2022	320		40.1			187	7.8
2/3/2022		220		222	122		
8/23/2022	323						
8/24/2022		215			118	197	7.94
8/25/2022			38.3	210			

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				230			
9/28/2021	51.1	108	274				
2/2/2022				215			
2/3/2022		120	279		213		
2/4/2022	67.6					42.2	102
8/24/2022		146	281	214			
8/25/2022	53				267	45.1	104

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				2.3	2	4.4	3.6
9/1/2016	3.3	3.5					
9/6/2016			5.8				
11/15/2016							4
11/16/2016	3.6	3.6		2	1.8	4.4	
11/17/2016			4.3				
2/20/2017						4.8	3.9
2/21/2017	3.2	3.2	3.5	2	1.8		
6/12/2017				2.1		4.2	3.8
6/13/2017		3.3	3.2		1.7		
6/14/2017	3.1						
9/26/2017	3.3	3.3	3.5	2	1.8	4.4	4.1
2/13/2018				2.1	1.7	4.7	4.1
2/14/2018	3.1	3.5	3.8				
6/26/2018	3.4	3.4	3.8	2.4	2.2	4.5	4.1
7/31/2018	2.6	2.9					
12/18/2018	2.8	2.9	3.9	1.8	1.9	4.5	3.8
3/19/2019	3.2	3.5	3.8	2.45 (D)	2	4.5	4.2
10/15/2019	3.1	3.4	3.5	2.2	1.9	4.2	3.7
3/3/2020	2.6	3.2		1.9	1.9	3.9	3.6
3/4/2020			3.3				
9/15/2020	2.4	3.5	3.1	1.9	1.7	3.7	3.7
3/1/2021				1.8			
3/2/2021	2.6	3.7	3.5		1.7	3.8	3.7
9/21/2021	2.1	3.5				3.2	3.2
9/22/2021			2.8	1.7	1.5		
2/1/2022	2.2	3.6	3.2	1.8	1.6	3.5	3.4
8/23/2022	2.5	5.46	3.16	2.02	2.18	3.64	3.59

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	2.5						
9/6/2016					6.7		
9/8/2016		5.5	6	6.4		6.8	
11/15/2016	2.3						
11/17/2016		7.7					
11/18/2016			6.3				
11/21/2016				6.9	6.5	7.8	
2/20/2017	2.4						
2/21/2017		7.3	5.1				
2/22/2017				6.2	5.6	7	
6/12/2017	2.2						
6/13/2017		7.5	4.7				
6/14/2017				7.2	5.7	7.1	
9/26/2017	2.3						
9/27/2017		7.9	4.9	8.7	6	7.2	
2/13/2018	2.3						
2/14/2018		6.7	5.6	7.2	5.9	7.4	
3/6/2018							56.6
5/1/2018							58.5
6/26/2018	2.6	6.7					
6/27/2018			5.9	6.3		7.1	
6/28/2018					7 (J-X)		50.2 (J-X)
7/31/2018							59
8/23/2018							54
9/19/2018							58.4
10/29/2018							62.6
11/28/2018							58.1
12/18/2018	2.3	6.2		5.4	5.8		
12/19/2018						7 (J-X)	
12/20/2018			5.6 (J-X)				47.2 (J-X)
3/19/2019	2.6		5.8				
3/20/2019		6.3 (D)		5.6	5.8	7.3	27.7
10/15/2019	2.4	5					
10/16/2019				6.9			
12/3/2019							52.8
12/4/2019			5.6		5	6.6	
3/3/2020	2.9						
3/4/2020		5	5.1	5.8			
3/5/2020					4.3	6	37.1
9/15/2020	2.3	4.9		5.5			
9/16/2020			5.4		4.4	5.6	54.9
3/1/2021	2.1						
3/2/2021		4.5					25.8
3/3/2021			4.5	5.6	4		
3/4/2021						4.6	
9/22/2021	2.1						
9/23/2021							29.3
9/28/2021		4.2	3.7	5.4	3.4	3.6	
2/1/2022	2.1						
2/2/2022		4.2			4	3.8	23.4
2/3/2022				6.1			
2/4/2022			4.6				

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
8/23/2022	2.39	5.38					
8/24/2022				5.84	4.91		
8/25/2022			4.65			3.96	14.9

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	8.4						
3/15/2018		23.3					
5/1/2018	5.7 (JXD)	23.4					
6/27/2018	4.4						
6/28/2018		24 (J-X)					
8/1/2018	5.2	25.7					
8/10/2018			6.9				
8/23/2018	3.6		7.5				
9/19/2018	4.1		6.6				
10/29/2018	4.3	24.9	7.8				
11/28/2018	5.1	24	7.2				
12/19/2018	4.5 (J-X)	23.3 (J-X)					
12/20/2018			6.6 (J-X)				
1/16/2019		24.1					
1/17/2019			6.4				
1/18/2019							4.6
1/19/2019						11.6	
2/13/2019			6.5				
3/19/2019	4.7						
3/20/2019		23.5	6.7 (D)				
10/16/2019	4.6	21.9	7				
10/18/2019						10.9	4.7
3/4/2020	4.2	21.6	6.1				
9/16/2020	4.1						
9/17/2020		20.1	6.3			10.5	4.6
10/27/2020				5.6	6.3	11	
3/2/2021	4.8						
3/3/2021					18.9		4.5
3/4/2021		18.9	5.6			12.2	
3/5/2021				8			
9/23/2021	4.3						
9/27/2021		16.2				9.4	3.8
9/28/2021			5.5	13	12.8		
2/2/2022	4.2		6.1			9.7	4.2
2/3/2022		17.4		12.5	15.2		
8/23/2022	4.49						
8/24/2022		15.8			17.5	9.64	4.58
8/25/2022			6.27	26.2			



# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				20			
9/28/2021	5.9	9.6	27.2				
2/2/2022				19.2			
2/3/2022		11.9	30.7		36.5		
2/4/2022	7.2					6.2	9.8
8/24/2022		10.7	26.7	19.2			
8/25/2022	8.41				53	6.15	9.97

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.001 (J)	0.0034 (J)	0.0058 (J)	0.0028 (J)
9/1/2016	0.0009 (J)	0.0013 (J)					
9/6/2016			<0.01				
11/15/2016							0.003 (J)
11/16/2016	0.0015 (J)	0.0012 (J)		<0.01	0.0029 (J)	0.0051 (J)	
11/17/2016			<0.01				
2/20/2017						0.0049 (J)	0.0047 (J)
2/21/2017	0.001 (J)	0.0017 (J)	<0.01	<0.01	0.0036 (J)		
6/12/2017				0.0005 (J)		0.0052 (J)	0.0041 (J)
6/13/2017		0.0019 (J)	<0.01		0.0038 (J)		
6/14/2017	0.0012 (J)						
9/26/2017	0.0014 (J)	0.0018 (J)	<0.01	0.0005 (J)	0.0045 (J)	0.0039 (J)	0.0037 (J)
2/13/2018				<0.01	<0.01	<0.01	<0.01
2/14/2018	<0.01	<0.01	<0.01				
6/26/2018	<0.01	0.0022 (J)	<0.01	<0.01	0.008 (J)	0.0053 (J)	0.0043 (J)
12/18/2018	0.0016 (J)	0.0022 (J)	<0.01	<0.01	0.012	0.0032 (J)	0.0054 (J)
8/27/2019	0.0023 (J)	0.0024 (J)		0.0004 (J)	0.0083 (J)	0.0055 (J)	0.0043 (J)
8/29/2019			0.0016 (J)				
10/15/2019	0.0021 (J)	0.0023 (J)	0.0017 (J)	<0.01	0.0083 (J)	0.0047 (J)	0.0055 (J)
3/3/2020	0.0026 (J)	0.0028 (J)		0.00047 (J)	0.0098 (J)	0.0069 (J)	0.0057 (J)
3/4/2020			0.0019 (J)				
8/18/2020	0.0023 (J)	0.0029 (J)	0.0017 (J)	0.00096 (J)	0.0085 (J)	0.0069 (J)	0.005 (J)
9/15/2020	0.00096 (J)	0.0025 (J)	0.0019 (J)	<0.01	0.0082 (J)	0.0069 (J)	0.0048 (J)
3/1/2021				<0.01			
3/2/2021	0.002 (J)	0.0021 (J)	0.002 (J)		0.0074	0.0064	0.0044 (J)
9/21/2021	0.0023 (J)	0.0024 (J)				0.0064	0.0044 (J)
9/22/2021			0.0026 (J)	<0.01	0.0091		
2/1/2022	0.0027 (J)	0.0029 (J)	0.0028 (J)	0.0013 (J)	0.0092	0.0066	0.0052
8/23/2022	<0.01	<0.01	<0.01	<0.01	0.00908 (J)	0.00647 (J)	0.00435 (J)

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	0.0147						
9/6/2016					<0.01		
9/8/2016		<0.01	0.001 (J)	<0.01		<0.01	
11/15/2016	0.0154 (B)						
11/17/2016		<0.01					
11/18/2016			<0.01				
11/21/2016				<0.01	<0.01	<0.01	
2/20/2017	0.014						
2/21/2017		<0.01	<0.01				
2/22/2017				<0.01	<0.01	0.0012 (J)	
6/12/2017	0.016						
6/13/2017		<0.01	<0.01				
6/14/2017				<0.01	<0.01	0.0009 (J)	
9/26/2017	0.0144						
9/27/2017		<0.01	<0.01	<0.01	<0.01	0.0011 (J)	
2/13/2018	0.0144						
2/14/2018		<0.01	<0.01	<0.01	<0.01	<0.01	
3/6/2018							<0.01
5/1/2018							<0.01
6/26/2018	0.015	<0.01					
6/27/2018			<0.01	<0.01		<0.01	
6/28/2018					<0.01		<0.01
7/31/2018							<0.01
8/23/2018							<0.01
9/19/2018							<0.01
10/29/2018							<0.01
11/28/2018							<0.01
12/18/2018	0.015	<0.01		<0.01	<0.01		
12/19/2018						<0.01	
12/20/2018			0.003 (J)				<0.01
8/27/2019	0.015	0.0016 (J)			0.0051 (J)	0.0019 (J)	
8/28/2019			<0.01	<0.01			<0.01
10/15/2019	0.014	0.00098 (J)					
10/16/2019				<0.01			
12/3/2019							<0.01
12/4/2019			<0.01		<0.01	0.0014 (J)	
3/3/2020	0.011						
3/4/2020		<0.01	<0.01	0.02			
3/5/2020					<0.01	0.0014 (J)	0.00053 (J)
8/18/2020	0.015						
8/19/2020		<0.01	<0.01	<0.01	<0.01	0.0021 (J)	
8/20/2020							0.001 (J)
9/15/2020	0.014	<0.01		<0.01			
9/16/2020			<0.01		0.014	0.0025 (J)	0.0014 (J)
3/1/2021	0.011						
3/2/2021		<0.01					<0.01
3/3/2021			<0.01	<0.01	<0.01		
3/4/2021						0.002 (J)	
9/22/2021	0.014						
9/23/2021							<0.01
9/28/2021		<0.01	<0.01	<0.01	<0.01	0.0021 (J)	
2/1/2022	0.015						

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		<0.01			<0.01	0.0021 (J)	<0.01
2/3/2022				<0.01			
2/4/2022			<0.01				
8/23/2022	0.0143	<0.01					
8/24/2022				<0.01	<0.01		
8/25/2022			<0.01			<0.01	<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.01						
3/15/2018		<0.01					
5/1/2018	<0.01 (D)	<0.01					
6/27/2018	<0.01						
6/28/2018		0.0023 (J)					
8/1/2018	<0.01	0.0046 (J)					
8/10/2018			0.0017 (J)				
8/23/2018	<0.01		<0.01				
9/19/2018	<0.01		<0.01				
10/29/2018	<0.01	<0.01	<0.01				
11/28/2018	<0.01	<0.01	<0.01				
12/19/2018	0.0018 (J)	<0.01					
12/20/2018			<0.01				
1/16/2019		<0.01					
1/17/2019			<0.01				
1/18/2019							<0.01
1/19/2019						<0.01	
2/13/2019			<0.01				
8/28/2019	0.00092 (J)						
8/29/2019		<0.01	<0.01				
10/16/2019	<0.01	0.0005 (J)	<0.01				
10/18/2019						<0.01	0.00042 (J)
3/4/2020	0.00078 (J)	0.00071 (J)	<0.01				
8/20/2020	0.00064 (J)	0.00065 (J)	<0.01			<0.01	0.00063 (J)
9/16/2020	<0.01						
9/17/2020		0.00098 (J)	<0.01			0.00098 (J)	<0.01
3/2/2021	<0.01						
3/3/2021					<0.01		<0.01
3/4/2021		0.001 (J)	<0.01			0.0008 (J)	
3/5/2021				<0.01			
9/23/2021	<0.01						
9/27/2021		<0.01				<0.01	<0.01
9/28/2021			<0.01	<0.01	<0.01		
2/2/2022	<0.01		<0.01			<0.01	<0.01
2/3/2022		<0.01		<0.01	<0.01		
8/23/2022	<0.01						
8/24/2022		<0.01			<0.01	<0.01	<0.01
8/25/2022			<0.01	<0.01			

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.0077			
9/28/2021	<0.01	<0.01	<0.01				
2/2/2022				<0.01			
2/3/2022		<0.01	<0.01		0.0032 (J)		
2/4/2022	<0.01					<0.01	<0.01
8/24/2022		<0.01	<0.01	<0.01			
8/25/2022	<0.01				0.00324 (J)	<0.01	<0.01

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.0016 (J)	0.0034 (J)	0.0013 (J)	<0.001
9/1/2016	<0.001	<0.001					
9/6/2016			0.0028 (J)				
11/15/2016							<0.001
11/16/2016	<0.001	<0.001		0.0006 (J)	0.003 (J)	<0.01 (o)	
11/17/2016			0.0072 (J)				
2/20/2017						0.0012 (J)	0.0009 (J)
2/21/2017	<0.001	<0.001	0.0045 (J)	<0.001	0.0028 (J)		
6/12/2017				<0.001		0.0011 (J)	0.0006 (J)
6/13/2017		<0.001	0.0036 (J)		0.0025 (J)		
6/14/2017	<0.001						
9/26/2017	<0.001	<0.001	0.0037 (J)	<0.001	0.002 (J)	0.0016 (J)	0.0005 (J)
2/13/2018				<0.001	<0.001	<0.01 (o)	<0.001
2/14/2018	<0.001	<0.001	0.0135				
6/26/2018	<0.001	<0.001	0.0098 (J)	<0.001	0.0019 (J)	0.0009 (J)	0.00052 (J)
7/31/2018	<0.001	<0.001					
12/18/2018	<0.001	<0.001	0.0057 (J)	<0.001	0.0032 (J)	0.00062 (J)	<0.001
8/27/2019	<0.001	<0.001		<0.001	0.0012 (J)	0.00068 (J)	0.00042 (J)
8/29/2019			0.0015 (J)				
10/15/2019	<0.001	<0.001	0.0011 (J)	<0.001	0.00097 (J)	0.00083 (J)	<0.001
3/3/2020	<0.001	<0.001		<0.001	0.0015 (J)	0.00043 (J)	<0.001
3/4/2020			0.0012 (J)				
8/18/2020	<0.001	<0.001	0.00067 (J)	<0.001	0.0014 (J)	0.00048 (J)	<0.001
9/15/2020	<0.001	<0.001	0.00076 (J)	<0.001	0.001 (J)	0.0005 (J)	<0.001
3/1/2021				<0.001			
3/2/2021	<0.001	<0.001	<0.001		0.001 (J)	0.00053 (J)	<0.001
9/21/2021	<0.001	<0.001				0.00071 (J)	<0.001
9/22/2021			<0.001	0.0015 (J)	<0.001		
2/1/2022	<0.001	<0.001	0.00052 (J)	0.00079 (J)	0.0011 (J)	0.0007 (J)	<0.001
8/23/2022	<0.001	<0.001	0.000308 (J)	0.000767 (J)	0.000844 (J)	0.000553 (J)	<0.001

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.001						
9/6/2016					0.0006 (J)		
9/8/2016		0.0073 (J)	0.0149	0.0122		0.0025 (J)	
11/15/2016	<0.001						
11/17/2016		0.0086 (J)					
11/18/2016			0.0131				
11/21/2016				0.0122	<0.001	0.001 (J)	
2/20/2017	<0.001						
2/21/2017		0.0079 (J)	0.0099 (J)				
2/22/2017				0.0136	0.0016 (J)	<0.001	
6/12/2017	0.0003 (J)						
6/13/2017		0.0083 (J)	0.0094 (J)				
6/14/2017				0.0113	0.0015 (J)	<0.001	
9/26/2017	0.0003 (J)						
9/27/2017		0.0087 (J)	0.0095 (J)	0.0094 (J)	0.0007 (J)	<0.001	
2/13/2018	<0.001						
2/14/2018		<0.001	0.0112	<0.001	<0.001	<0.001	
3/6/2018							0.0162
5/1/2018							0.015
6/26/2018	<0.001	0.006 (J)					
6/27/2018			0.0093 (J)	0.0069 (J)		<0.001	
6/28/2018					0.00078 (J)		0.01
7/31/2018							0.0098 (J)
8/23/2018							0.0093 (J)
9/19/2018							0.0084 (J)
10/29/2018							0.0064 (J)
11/28/2018							0.0071 (J)
12/18/2018	<0.001	0.0055 (J)		0.0067 (J)	0.0011 (J)		
12/19/2018						<0.001	
12/20/2018			0.0081 (J)				0.069
8/27/2019	<0.001	0.0042 (J)			0.0014 (J)	<0.001	
8/28/2019			0.01	0.0061			0.011
10/15/2019	<0.001	0.0043 (J)					
10/16/2019				0.0058			
10/17/2019			0.011 (J)		<0.001	<0.001	0.0098 (J)
12/3/2019							0.0076
12/4/2019			0.0086		0.0012 (J)	<0.001	
3/3/2020	0.0011 (J)						
3/4/2020		0.0039 (J)	0.008	0.007			
3/5/2020					0.0011 (J)	<0.001	0.0091
8/18/2020	0.00061 (J)						
8/19/2020		0.0039 (J)	0.0078	0.0065	0.0008 (J)	<0.001	
8/20/2020							0.022
9/15/2020	<0.001	0.0035 (J)		0.0064			
9/16/2020			0.008		0.0008 (J)	<0.001	0.0049 (J)
3/1/2021	<0.001						
3/2/2021		0.003 (J)					0.0057
3/3/2021			0.0062	0.0095	0.0015 (J)		
3/4/2021						<0.001	
9/22/2021	0.00078 (J)						
9/23/2021							0.0049 (J)
9/28/2021		0.0029 (J)	0.0047 (J)	0.0069	0.001 (J)	<0.001	



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/1/2022	<0.001						
2/2/2022		0.0027 (J)			0.0012 (J)	<0.001	0.0054
2/3/2022				0.0077			
2/4/2022			0.0076				
8/23/2022	<0.001	0.00342					
8/24/2022				0.0066	0.00163		
8/25/2022			0.0079			<0.001	0.00357

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.001						
3/15/2018		1.3					
5/1/2018	0.0125 (D)	1.4					
6/27/2018	0.0076 (J)						
6/28/2018		1.3					
8/1/2018	0.004 (J)	1.4					
8/2/2018							0.0079 (J)
8/3/2018						0.041	
8/10/2018			0.0043 (J)				
8/23/2018	0.0016 (J)		0.0026 (J)				
9/19/2018	0.0018 (J)		0.0028 (J)				
10/29/2018	0.0014 (J)	1.4	0.0015 (J)				
11/28/2018	0.0016 (J)	1.4	0.0012 (J)				
12/19/2018	0.0014 (J)	1.5					
12/20/2018			<0.001				
1/16/2019		1.4					
1/17/2019			<0.001				
1/18/2019							0.0082 (J)
1/19/2019						0.018	
2/13/2019			<0.001				
8/28/2019	0.00037 (J)						
8/29/2019		1.3	0.00063 (J)				
10/16/2019	0.00032 (J)	1.4	<0.001				
10/18/2019						0.017	0.0063
3/4/2020	0.0011 (J)	1.5	<0.001				
8/20/2020	0.00043 (J)	1.4	<0.001			0.02	0.0039 (J)
9/16/2020	0.00053 (J)						
9/17/2020		1.4	0.00046 (J)			0.022	0.0062
10/27/2020				0.0037 (J)	0.00041 (J)	0.02	
3/2/2021	0.0005 (J)						
3/3/2021					0.0004 (J)		0.005
3/4/2021		1.4	<0.001			0.019	
3/5/2021				0.0038 (J)			
9/23/2021	<0.001						
9/27/2021		1.3				0.02	0.0022 (J)
9/28/2021			<0.001	0.2	<0.001		
2/2/2022	<0.001		<0.001			0.023	0.0028 (J)
2/3/2022		1.5		0.1	<0.001		
8/23/2022	<0.001						
8/24/2022		1.42			0.000306 (J)	0.0239	0.00193
8/25/2022			<0.001	0.506			

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.45			
9/28/2021	0.055	0.39	3.5				
2/2/2022				0.51			
2/3/2022		0.43	3.4		1.6		
2/4/2022	0.094					0.019	0.27
8/24/2022		0.503	3.57	0.562			
8/25/2022	0.0194				1.46	0.0232	0.37

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.351 (U)	1 (U)	0.62 (U)	0.603 (U)
9/1/2016	0.428 (U)	0.566 (U)					
9/6/2016			0.585 (U)				
11/15/2016							0.645 (U)
11/16/2016	0.799 (U)	0.863 (U)		0.824 (U)	0.43 (U)	0.493 (U)	
11/17/2016			0.804 (U)				
2/20/2017						0.534 (U)	1.36
2/21/2017	1.75 (U)	0.318 (U)	0.595 (U)	1.01 (U)	0.96 (U)		
6/12/2017				0.532 (U)		0.254 (U)	0.566 (U)
6/13/2017		0.163 (U)	0.618 (U)		0.645 (U)		
6/14/2017	2.66						
9/26/2017	0.841 (U)	0.56 (U)	1.26 (U)	0.845 (U)	0.299 (U)	0.62 (U)	0.762 (U)
2/13/2018				0.176 (U)	1.01 (U)	0.0914 (U)	0.349 (U)
2/14/2018	1.13 (UX)	0.537 (U)	1.2 (U)				
6/26/2018	1.42 (J+X)	1.31 (UX)	1.34 (U)	1.02 (U)	1.26 (J+X)	1.11 (U)	0.614 (U)
12/18/2018	0.855 (U)	1.31 (J+X)	1.13 (U)	0.487 (U)	0.44 (U)	0.42 (U)	0.445 (U)
8/27/2019	1.31	1.32		1.11	1.47	1.19	1.44
8/29/2019			1.45 (U)				
10/15/2019	1.13 (U)	1.05 (U)	1.69	1.02 (U)	0.807 (U)	0.714 (U)	0.467 (U)
3/3/2020	1.29 (U)	1.68		1.18 (U)	0.818 (U)	0.996 (U)	1.5
3/4/2020			1.45				
8/18/2020	0.988 (U)	0.969 (U)	0.784 (U)	0.0861 (U)	1.22 (U)	0.53 (U)	0.581 (U)
9/15/2020	0.762 (U)	0.359 (U)	1.04 (U)	0.0583 (U)	0.579 (U)	0.215 (U)	0.55 (U)
3/1/2021				0.127 (U)			
3/2/2021	0.901	0.925	1.12		0.342 (U)	0.409 (U)	0.362 (U)
9/21/2021	1.33	0.468 (U)				0.182 (U)	0.86 (U)
9/22/2021			1.4	0.349 (U)	1.33 (U)		
2/1/2022	0.833 (U)	0.659 (U)	1.15	0.233 (U)	0.251 (U)	1.23	0.23 (U)
8/23/2022	0.558	1.69	1.59	1.7	0.531	2.3	0.735

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	1.33						
9/6/2016					1.01 (U)		
9/8/2016		0.862 (U)	1.74	1.13		0.706 (U)	
11/15/2016	0.412 (U)						
11/17/2016		1.2 (U)					
11/18/2016			0.571 (U)				
11/21/2016				1.59	0.201 (U)	0.0569 (U)	
2/20/2017	0.633 (U)						
2/21/2017		1.31	1.28 (U)				
2/22/2017				1.64	0.57 (U)	1.07 (U)	
6/12/2017	0.112 (U)						
6/13/2017		0.738 (U)	0.521 (U)				
6/14/2017				1.32	0.726 (U)	0.459 (U)	
9/26/2017	0.167 (U)						
9/27/2017		0.583 (U)	0.595 (U)	1.7	0.884 (U)	0.807 (U)	
2/13/2018	0.347 (U)						
2/14/2018		1.41 (J+X)	1.18 (U)	1.89 (J+X)	1.14 (U)	1.67 (J+X)	
3/6/2018							1.25 (U)
5/1/2018							0.423 (U)
6/26/2018	0.903 (U)	0.968 (U)					
6/27/2018			1.3 (U)	1.66 (J+X)		1.34 (UX)	
6/28/2018					1.4 (UX)		0.283 (U)
7/31/2018							0.243 (U)
8/23/2018							1.1 (U)
9/19/2018							0.369 (U)
10/29/2018							0.401 (U)
11/28/2018							0.901 (U)
12/18/2018	0.353 (U)	1.13 (U)		0.759 (U)	0.661 (U)		
12/19/2018						1.21 (U)	
12/20/2018			0.527 (U)				0.657 (U)
8/27/2019	0.65 (U)	0.91 (U)			1.35	0.86 (U)	
8/28/2019			0.643 (U)	1.76			0.528 (U)
10/15/2019	0.402 (U)	1.06 (U)					
10/16/2019				1.69 (U)			
10/17/2019			1.07 (U)		1.25 (U)	1.2 (U)	0.977 (U)
3/3/2020	0.397 (U)						
3/4/2020		1.34	1.18	1.23			
3/5/2020					1.35	0.483 (U)	0.921 (U)
8/18/2020	0.453 (U)						
8/19/2020		0.467 (U)	0.684 (U)	0.876 (U)	1 (U)	0.482 (U)	
8/20/2020							0.501 (U)
9/15/2020	0.474 (U)	0.205 (U)		1.23 (U)			
9/16/2020			0.175 (U)		0.43 (U)	0.195 (U)	0.254 (U)
3/1/2021	0.215 (U)						
3/2/2021		0.161 (U)					0.107 (U)
3/3/2021			0.829 (U)	1.31 (U)	0.415 (U)		
3/4/2021						0.32 (U)	
9/22/2021	0.943 (U)						
9/23/2021							0.619 (U)
9/28/2021		4.44	3.58	1.49	0.749 (U)	0.947 (U)	
2/1/2022	0.349 (U)						
2/2/2022		0.64 (U)			1.21 (U)	0.0265 (U)	0.219 (U)

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/3/2022				0.798 (U)			
2/4/2022			0.335 (U)				
8/23/2022	0.203	1.9					
8/24/2022				1.97	3.26		
8/25/2022			1.79			1.32	1.65

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	1.75 (J+X)						
3/15/2018		1.31					
5/1/2018	2.02 (J+XD)	1.69 (J+X)					
6/27/2018	0.878 (U)						
6/28/2018		1.04 (U)					
8/1/2018	0.638 (U)	1.67					
8/10/2018			1.91				
8/23/2018	1.14 (U)		1.86 (J+X)				
9/19/2018	1.45 (UX)		1.64 (UX)				
10/29/2018	1.09 (U)	0.992 (U)	1.36 (U)				
11/28/2018	1.67 (UX)	1.76 (UX)	1.07 (U)				
12/19/2018	1.3	2.15 (J+X)					
12/20/2018			0.892 (U)				
1/16/2019		1.39					
1/17/2019			1.1 (U)				
1/18/2019							1.22
1/19/2019						1.86	
2/13/2019			1.68				
8/28/2019	0.804 (U)						
8/29/2019		1.33	1.44				
10/16/2019	1.28 (U)	2.51	2.13				
10/18/2019						11.7 (U)	17.1 (U)
3/4/2020	0.862 (U)	1.73	2.3				
8/20/2020	1.64	2.78	2.97			0.937 (U)	1.19
9/16/2020	0.51 (U)						
9/17/2020		0.717 (U)	2.04			1.76	0.952 (U)
3/2/2021	0.571 (U)						
3/3/2021					2.54		0.599 (U)
3/4/2021		1.22	2.04			0.966 (U)	
3/5/2021				2.11			
9/23/2021	0.527 (U)						
9/27/2021		2.07				0.771 (U)	0.00107 (U)
9/28/2021			3.28	1.05	1.89		
2/2/2022	0.145 (U)		2.33			0.992 (U)	0.0266 (U)
2/3/2022		1.15		1	2.23		
8/23/2022	3.74						
8/24/2022		1.87			3.33	0.625	1.2
8/25/2022			4.97	2.26			

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				1.14 (U)			
9/28/2021	0.0352 (U)	1.66	2.79				
2/2/2022				1.16			
2/3/2022		1.33	2.46		0.766 (U)		
2/4/2022	0.229 (U)					0.768	0.874
8/24/2022		1.16	3.5	2.91			
8/25/2022	0.773				1.02	1.52	1.88



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.11 (J)	0.05 (J)	0.07 (J)	0.19 (J)
9/1/2016	0.2 (J)	0.05 (J)					
9/6/2016			0.42				
11/15/2016							0.13 (J)
11/16/2016	0.14 (J)	0.03 (J)		0.08 (J)	0.07 (J)	0.07 (J)	
11/17/2016			0.15 (J)				
2/20/2017						0.06 (J)	0.08 (J)
2/21/2017	0.16 (J)	0.04 (J)	0.1 (J)	0.14 (J)	0.05 (J)		
6/12/2017				0.16 (J)		0.008 (J)	0.07 (J)
6/13/2017		0.008 (J)	0.07 (J)		0.04 (J)		
6/14/2017	0.09 (J)						
9/26/2017	0.1 (J)	<0.1	<0.1	0.14 (J)	<0.1	<0.1	0.04 (J)
2/13/2018				<0.1	<0.1	<0.1	<0.1
2/14/2018	<0.1	<0.1	<0.1				
6/26/2018	0.079 (J)	0.042 (J)	0.053 (J)	0.085 (J)	0.048 (J)	0.045 (J)	0.072 (J)
12/18/2018	<0.1	<0.1	<0.1	0.085 (J)	<0.1	<0.1	<0.1
3/19/2019	<0.1	<0.1	<0.1	0.0655 (JD)	0.037 (J)	<0.1	0.06 (J)
8/27/2019	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1
8/29/2019			0.084 (J)				
10/15/2019	0.047 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	0.045 (J)
3/3/2020	0.056 (J)	<0.1		0.066 (J)	0.05 (J)	<0.1	0.057 (J)
3/4/2020			<0.1				
8/18/2020	0.052 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9/15/2020	0.062 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	0.051 (J)
3/1/2021				<0.1			
3/2/2021	0.061 (J)	<0.1	<0.1		<0.1	<0.1	<0.1
9/21/2021	0.071 (J)	<0.1				<0.1	0.056 (J)
9/22/2021			0.069 (J)	<0.1	<0.1		
2/1/2022	0.055 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8/23/2022	0.151	0.129	0.157	<0.1	<0.1	<0.1	<0.1



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/28/2021		0.15	0.16	0.081 (J)	0.11	<0.1	
2/1/2022	<0.1						
2/2/2022		0.15			0.1	<0.1	<0.1
2/3/2022				0.11			
2/4/2022			0.14				
8/23/2022	<0.1	0.186					
8/24/2022				0.103	0.318		
8/25/2022			0.234			0.138	0.166

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	1.1						
3/15/2018		0.84 (JX)					
5/1/2018	0.595 (D)	0.91					
6/27/2018	0.27 (J)						
6/28/2018		1.1 (J+X)					
8/1/2018	0.48	2					
8/10/2018			1.6 (O)				
8/23/2018	0.34		0.32				
9/19/2018	0.23 (J)		0.22 (J)				
10/29/2018	<0.1	0.24 (J)	0.14 (J)				
11/28/2018	0.063 (J)	0.41	0.24 (J)				
12/19/2018	0.28 (J)	0.54					
12/20/2018			0.3				
1/16/2019		1.1					
1/17/2019			0.23 (J)				
1/18/2019							0.13 (J)
1/19/2019						<0.1	
2/13/2019			<0.1				
3/19/2019	<0.1						
3/20/2019		0.21 (J)	0.135 (JD)				
8/28/2019	<0.1						
8/29/2019		0.41	0.087 (J)				
10/16/2019	0.076 (J)	0.39	0.22 (J)				
10/18/2019						<0.1	0.09 (J)
3/4/2020	<0.1	0.14 (J)	0.1 (J)				
8/20/2020	<0.1	0.39	0.23			<0.1	0.056 (J)
9/16/2020	<0.1						
9/17/2020		0.46	0.074 (J)			<0.1	0.062 (J)
10/27/2020				0.28	0.21	<0.1	
3/2/2021	<0.1						
3/3/2021					0.28		0.083 (J)
3/4/2021		0.6	0.28			0.061 (J)	
3/5/2021				0.16			
9/23/2021	<0.1						
9/27/2021		0.43				<0.1	0.072 (J)
9/28/2021			0.12	0.11	0.26		
2/2/2022	<0.1		0.098 (J)			<0.1	0.053 (J)
2/3/2022		0.42		0.15	0.27		
8/23/2022	<0.1						
8/24/2022		0.497			0.318	0.148	0.131
8/25/2022			0.157	0.106			

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.067 (J)			
9/28/2021	0.085 (J)	0.97	1.6				
2/2/2022				<0.1			
2/3/2022		1.8	2.3		2.7		
2/4/2022	0.096 (J)					0.14	0.071 (J)
8/24/2022		1.09	1.32	0.103			
8/25/2022	0.235				1.8	0.235	<0.1



# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	0.0001 (J)						
9/6/2016					<0.002		
9/8/2016		<0.002	<0.002	0.0004 (J)		<0.002	
11/15/2016	<0.002						
11/17/2016		<0.002					
11/18/2016			<0.002				
11/21/2016				0.0006 (J)	<0.002	<0.002	
2/20/2017	<0.002						
2/21/2017		<0.002	<0.002				
2/22/2017				0.0005 (J)	<0.002	<0.002	
6/12/2017	8E-05 (J)						
6/13/2017		<0.002	<0.002				
6/14/2017				0.0004 (J)	<0.002	<0.002	
9/26/2017	<0.002						
9/27/2017		<0.002	<0.002	0.0006 (J)	<0.002	<0.002	
2/13/2018	<0.002						
2/14/2018		<0.002	<0.002	<0.005 (o)	<0.002	<0.002	
3/6/2018							<0.002
5/1/2018							<0.002
6/26/2018	<0.002	<0.002					
6/27/2018			<0.002	0.00032 (J)		<0.002	
6/28/2018					<0.002		<0.002
7/31/2018							<0.002
8/23/2018							<0.002
9/19/2018							<0.002
10/29/2018							<0.002
11/28/2018							<0.002
12/18/2018	<0.002	<0.002		0.00038 (J)	<0.002		
12/19/2018						<0.002	
12/20/2018			<0.002				<0.002
8/27/2019	<0.002	0.00011 (J)			<0.002	<0.002	
8/28/2019			<0.002	0.00027 (J)			<0.002
10/15/2019	<0.002	<0.002					
10/16/2019				0.00027 (J)			
12/3/2019							<0.002
12/4/2019			6.3E-05 (J)		<0.002	<0.002	
3/3/2020	7.3E-05 (J)						
3/4/2020		<0.002	<0.002	0.0003 (J)			
3/5/2020					<0.002	<0.002	0.00026 (J)
8/18/2020	<0.002						
8/19/2020		<0.002	<0.002	0.00025 (J)	<0.002	<0.002	
8/20/2020							0.00021 (J)
9/15/2020	<0.002	<0.002		0.00029 (J)			
9/16/2020			<0.002		0.00011 (J)	<0.002	5.3E-05 (J)
3/1/2021	<0.002						
3/2/2021		<0.002					<0.002
3/3/2021			<0.002	0.00033 (J)	<0.002		
3/4/2021						<0.002	
9/22/2021	<0.002						
9/23/2021							<0.002
9/28/2021		<0.002	<0.002	<0.002	<0.002	<0.002	
2/1/2022	<0.002						

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		<0.002			<0.002	<0.002	<0.002
2/3/2022				<0.002			
2/4/2022			<0.002				
8/23/2022	<0.002	<0.002					
8/24/2022				<0.002	<0.002		
8/25/2022			<0.002			<0.002	<0.002



# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.002						
3/15/2018		<0.002					
5/1/2018	<0.002 (D)	<0.002					
6/27/2018	<0.002						
6/28/2018		0.00054 (J)					
8/1/2018	<0.002	<0.002					
8/10/2018			<0.002				
8/23/2018	<0.002		<0.002				
9/19/2018	<0.002		<0.002				
10/29/2018	<0.002	0.0003 (J)	<0.002				
11/28/2018	<0.002	<0.002	<0.002				
12/19/2018	<0.002	<0.002					
12/20/2018			<0.002				
1/16/2019		<0.002					
1/17/2019			<0.002				
1/18/2019							<0.002
1/19/2019						<0.002	
2/13/2019			<0.002				
8/28/2019	<0.002						
8/29/2019		4.9E-05 (J)	<0.002				
10/16/2019	<0.002	8.5E-05 (J)	<0.002				
10/18/2019						<0.002	<0.002
3/4/2020	0.00012 (J)	0.0001 (J)	<0.002				
8/20/2020	4.8E-05 (J)	6.7E-05 (J)	<0.002			<0.002	<0.002
9/16/2020	6.6E-05 (J)						
9/17/2020		0.00015 (J)	<0.002			0.00036 (J)	<0.002
3/2/2021	<0.002						
3/3/2021					0.00013 (J)		<0.002
3/4/2021		0.00016 (J)	4.2E-05 (J)			0.00017 (J)	
3/5/2021				5.6E-05 (J)			
9/23/2021	<0.002						
9/27/2021		<0.002				<0.002	<0.002
9/28/2021			<0.002	<0.002	<0.002		
2/2/2022	<0.002		<0.002			<0.002	<0.002
2/3/2022		<0.002		<0.002	<0.002		
8/23/2022	<0.002						
8/24/2022		<0.002			<0.002	<0.002	<0.002
8/25/2022			<0.002	<0.002			

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.0019			
9/28/2021	<0.002	<0.002	<0.002				
2/2/2022				<0.002			
2/3/2022		<0.002	<0.002		<0.002		
2/4/2022	<0.002					<0.002	<0.002
8/24/2022		0.000894 (J)	<0.002	0.00113 (J)			
8/25/2022	<0.002				<0.002	<0.002	<0.002

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.0268 (J)	<0.01	<0.01	<0.01
9/1/2016	0.0061 (J)	<0.01					
9/6/2016			0.0028 (J)				
11/15/2016							<0.01
11/16/2016	0.0054 (J)	<0.01		0.0201 (J)	<0.01	0.0033 (J)	
11/17/2016			0.0063 (J)				
2/20/2017						<0.01	<0.01
2/21/2017	0.0058 (J)	<0.01	0.0052 (J)	0.0128 (J)	<0.01		
6/12/2017				0.0245 (J)		0.0019 (J)	<0.01
6/13/2017		<0.01	0.0061 (J)		<0.01		
6/14/2017	0.0054 (J)						
9/26/2017	0.0037 (J)	<0.01	0.0087 (J)	0.0549	<0.01	0.0022 (J)	<0.01
2/13/2018				0.0595	<0.01	0.0041 (J)	<0.01
2/14/2018	0.0038 (J)	<0.01	0.0104 (J)				
6/26/2018	0.0045 (J)	<0.01	0.0095 (J)	0.089	<0.01	0.0025 (J)	<0.01
12/18/2018	0.0038 (J)	<0.01	0.0091 (J)	0.024 (J)	<0.01	0.0032 (J)	<0.01
8/27/2019	0.0039 (J)	<0.01		0.035	<0.01	0.0019 (J)	<0.01
8/29/2019			0.007 (J)				
10/15/2019	0.0037 (J)	<0.01	0.0069 (J)	0.028 (J)	<0.01	0.002 (J)	<0.01
3/3/2020	0.0033 (J)	<0.01		0.055	<0.01	0.0013 (J)	<0.01
3/4/2020			0.0074 (J)				
8/18/2020	0.0039 (J)	<0.01	0.0099 (J)	0.054	<0.01	0.00095 (J)	<0.01
9/15/2020	0.0037 (J)	<0.01	0.011 (J)	0.033	<0.01	0.001 (J)	<0.01
3/1/2021				0.027 (J)			
3/2/2021	0.0045 (J)	<0.01	0.0093 (J)		<0.01	0.00081 (J)	<0.01
9/21/2021	0.0037 (J)	<0.01				0.0012 (J)	<0.01
9/22/2021			0.0074 (J)	0.021 (J)	<0.01		
2/1/2022	0.0037 (J)	<0.01	0.008 (J)	0.023 (J)	<0.01	0.0011 (J)	<0.01
8/23/2022	0.00451 (J)	<0.01	0.00792 (J)	0.0262	<0.01	<0.01	<0.01

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	0.003 (J)						
9/6/2016					0.0117 (J)		
9/8/2016		<0.01	0.0021 (J)	0.004 (J)		<0.01	
11/15/2016	0.0033 (J)						
11/17/2016		<0.01					
11/18/2016			<0.01				
11/21/2016				0.0039 (J)	0.0108 (J)	<0.01	
2/20/2017	0.0025 (J)						
2/21/2017		<0.01	<0.01				
2/22/2017				0.0043 (J)	0.0103 (J)	0.0023 (J)	
6/12/2017	0.0027 (J)						
6/13/2017		<0.01	0.0017 (J)				
6/14/2017				0.0036 (J)	0.0101 (J)	0.0022 (J)	
9/26/2017	0.0023 (J)						
9/27/2017		<0.01	0.0016 (J)	0.0038 (J)	0.0116 (J)	0.0021 (J)	
2/13/2018	0.0027 (J)						
2/14/2018		<0.01	0.0018 (J)	0.0034 (J)	0.0115 (J)	0.0023 (J)	
3/6/2018							0.0031 (J)
5/1/2018							0.0038 (J)
6/26/2018	0.0029 (J)	<0.01					
6/27/2018			0.0016 (J)	0.0034 (J)		0.0023 (J)	
6/28/2018					0.013 (J)		0.0028 (J)
7/31/2018							<0.25 (o)
8/23/2018							0.0033 (J)
9/19/2018							0.0033 (J)
10/29/2018							0.003 (J)
11/28/2018							0.0035 (J)
12/18/2018	0.0026 (J)	<0.01		0.0032 (J)	0.014 (J)		
12/19/2018						0.0018 (J)	
12/20/2018			0.0015 (J)				0.003 (J)
8/27/2019	0.0028 (J)	<0.01			0.016 (J)	0.0022 (J)	
8/28/2019			0.0016 (J)	0.0033 (J)			0.0034 (J)
10/15/2019	0.0024 (J)	<0.01					
10/16/2019				0.0029 (J)			
12/3/2019							0.0033 (J)
12/4/2019			0.0014 (J)		0.013 (J)	0.0022 (J)	
3/3/2020	0.0026 (J)						
3/4/2020		<0.01	0.0014 (J)	0.0029 (J)			
3/5/2020					0.016 (J)	0.0022 (J)	0.003 (J)
8/18/2020	0.0026 (J)						
8/19/2020		<0.01	0.0014 (J)	0.0029 (J)	0.018 (J)	0.002 (J)	
8/20/2020							0.0034 (J)
9/15/2020	0.0027 (J)	<0.01		0.003 (J)			
9/16/2020			0.0014 (J)		0.016 (J)	0.0022 (J)	0.0036 (J)
3/1/2021	0.0036 (J)						
3/2/2021		<0.01					0.0043 (J)
3/3/2021			0.0012 (J)	0.0032 (J)	0.014 (J)		
3/4/2021						0.002 (J)	
9/22/2021	0.0035 (J)						
9/23/2021							0.0023 (J)
9/28/2021		<0.01	0.0011 (J)	0.0029 (J)	0.023 (J)	0.0021 (J)	
2/1/2022	0.0029 (J)						

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		<0.01			0.021 (J)	0.0035 (J)	0.0022 (J)
2/3/2022				0.0026 (J)			
2/4/2022			0.001 (J)				
8/23/2022	0.00314 (J)	<0.01					
8/24/2022				0.00304 (J)	0.0238		
8/25/2022			<0.01			0.0043 (J)	<0.01

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	0.0399 (J)						
3/15/2018		0.038 (J)					
5/1/2018	0.0475 (JD)	0.042 (J)					
6/27/2018	0.044 (J)						
6/28/2018		0.04 (J)					
8/1/2018	0.039 (J)	0.036 (J)					
8/10/2018			0.0087 (J)				
8/23/2018	0.044 (J)		0.0089 (J)				
9/19/2018	0.043 (J)		0.005 (J)				
10/29/2018	0.039 (J)	0.041 (J)	0.0048 (J)				
11/28/2018	0.044 (J)	0.041 (J)	0.0052 (J)				
12/19/2018	0.043 (J)	0.043 (J)					
12/20/2018			0.0042 (J)				
1/16/2019		0.042 (J)					
1/17/2019			0.0039 (J)				
1/18/2019							0.0012 (J)
1/19/2019						0.019 (J)	
2/13/2019			<0.01				
8/28/2019	0.044						
8/29/2019		0.039	0.0052 (J)				
10/16/2019	0.038	0.034	0.0023 (J)				
10/18/2019						0.019 (J)	<0.01
3/4/2020	0.042	0.042	0.002 (J)				
8/20/2020	0.044	0.04	0.0022 (J)			0.019 (J)	<0.01
9/16/2020	0.039						
9/17/2020		0.052	0.0058 (J)			0.021 (J)	<0.01
3/2/2021	0.044						
3/3/2021					0.0093 (J)		<0.01
3/4/2021		0.05	0.003 (J)			0.026 (J)	
3/5/2021				0.019 (J)			
9/23/2021	0.042						
9/27/2021		0.038				0.02 (J)	<0.01
9/28/2021			0.0035 (J)	0.02 (J)	0.0096 (J)		
2/2/2022	0.04		0.0041 (J)			0.021 (J)	<0.01
2/3/2022		0.038		0.024 (J)	0.0096 (J)		
8/23/2022	0.0474						
8/24/2022		0.0428			0.0042 (J)	0.0222	<0.01
8/25/2022			0.0162	0.0255			

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.0095 (J)			
9/28/2021	0.018 (J)	0.041	0.1				
2/2/2022				0.011 (J)			
2/3/2022		0.041	0.098		0.19		
2/4/2022	0.026 (J)					0.007 (J)	0.01 (J)
8/24/2022		0.0488	0.101	0.00913 (J)			
8/25/2022	0.0231				0.164	0.00509 (J)	0.00617 (J)





# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.0002						
9/6/2016					<0.0002		
9/8/2016		<0.0002	<0.0002	<0.0002		<0.0002	
11/15/2016	<0.0002						
11/17/2016		<0.0002					
11/18/2016			<0.0002				
11/21/2016				<0.0002	<0.0002	<0.0002	
2/20/2017	<0.0002						
2/21/2017		<0.0002	<0.0002				
2/22/2017				<0.0002	<0.0002	<0.0002	
6/12/2017	<0.0002						
6/13/2017		<0.0002	5E-05 (J)				
6/14/2017				7E-05 (J)	7E-05 (J)	9E-05 (J)	
9/26/2017	<0.0002						
9/27/2017		4E-05 (J)	4.7E-05 (J)	4E-05 (J)	4E-05 (J)	0.0001 (J)	
2/13/2018	<0.0002						
2/14/2018		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
3/6/2018							<0.0002
5/1/2018							<0.0002
6/26/2018	<0.0002	<0.0002					
6/27/2018			<0.0002	<0.0002		<0.0002	
6/28/2018					<0.0002		<0.0002
7/31/2018							<0.0002
8/23/2018							<0.0002
9/19/2018							<0.0002
10/29/2018							<0.0002
11/28/2018							<0.0002
12/18/2018	<0.0002	<0.0002		<0.0002	<0.0002		
12/19/2018						<0.0002	
12/20/2018			<0.0002				<0.0002
8/27/2019	<0.0002	<0.0002			<0.0002	<0.0002	
8/28/2019			<0.0002	<0.0002			<0.0002
8/18/2020	<0.0002						
8/19/2020		8.3E-05 (J)	<0.0002	9.8E-05 (J)	8.2E-05 (J)	8.2E-05 (J)	
8/20/2020							<0.0002
9/15/2020	<0.0002	<0.0002		<0.0002			
9/16/2020			<0.0002		<0.0002	<0.0002	<0.0002
3/1/2021	<0.0002						
3/2/2021		<0.0002					<0.0002
3/3/2021			<0.0002	<0.0002	<0.0002		
3/4/2021						<0.0002	
9/22/2021	0.0001 (J)						
9/23/2021							<0.0002
9/28/2021		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
2/1/2022	<0.0002						
2/2/2022		<0.0002			<0.0002	<0.0002	<0.0002
2/3/2022				<0.0002			
2/4/2022			<0.0002				
8/23/2022	<0.0002	<0.0002					
8/24/2022				<0.0002	<0.0002		
8/25/2022			<0.0002			<0.0002	<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.0002						
3/15/2018		<0.0002					
5/1/2018	<0.0002 (D)	<0.0002					
6/27/2018	<0.0002						
6/28/2018		<0.0002					
8/1/2018	<0.0002	<0.0002					
8/10/2018			<0.0002				
8/23/2018	<0.0002		<0.0002				
9/19/2018	<0.0002		<0.0002				
10/29/2018	<0.0002	<0.0002	<0.0002				
11/28/2018	<0.0002	<0.0002	<0.0002				
12/19/2018	<0.0002	<0.0002					
12/20/2018			<0.0002				
1/16/2019		<0.0002					
1/17/2019			<0.0002				
1/18/2019							<0.0002
1/19/2019						<0.0002	
2/13/2019			<0.0002				
8/28/2019	<0.0002						
8/29/2019		<0.0002	<0.0002				
10/18/2019						<0.0002	<0.0002
8/20/2020	<0.0002	<0.0002	<0.0002			9.9E-05 (J)	<0.0002
9/16/2020	<0.0002						
9/17/2020		<0.0002	<0.0002			<0.0002	<0.0002
3/2/2021	<0.0002						
3/3/2021					<0.0002		<0.0002
3/4/2021		<0.0002	<0.0002			<0.0002	
3/5/2021				<0.0002			
9/23/2021	<0.0002						
9/27/2021		<0.0002				<0.0002	<0.0002
9/28/2021			<0.0002	<0.0002	<0.0002		
2/2/2022	<0.0002		<0.0002			<0.0002	<0.0002
2/3/2022		<0.0002		<0.0002	<0.0002		
8/23/2022	<0.0002						
8/24/2022		<0.0002			<0.0002	<0.0002	<0.0002
8/25/2022			<0.0002	<0.0002			

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				<0.0002			
9/28/2021	<0.0002	<0.0002	<0.0002				
2/2/2022				<0.0002			
2/3/2022		<0.0002	<0.0002		<0.0002		
2/4/2022	<0.0002					<0.0002	<0.0002
8/24/2022		<0.0002	<0.0002	<0.0002			
8/25/2022	<0.0002				<0.0002	<0.0002	<0.0002

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				0.0021 (J)	<0.001	0.004 (J)	<0.001
9/1/2016	0.002 (J)	<0.001					
9/6/2016			0.0028 (J)				
11/15/2016							<0.001
11/16/2016	<0.001	<0.001		<0.001	<0.001	0.0038 (J)	
11/17/2016			<0.001				
2/20/2017						0.0055 (J)	<0.001
2/21/2017	<0.001	<0.001	<0.001	0.0021 (J)	<0.001		
6/12/2017				0.0021 (J)		0.005 (J)	<0.001
6/13/2017		<0.001	<0.001		<0.001		
6/14/2017	<0.001						
9/26/2017	<0.001	<0.001	<0.001	0.0011 (J)	<0.001	0.0053 (J)	<0.001
2/13/2018				0.0019 (J)	<0.001	0.008 (J)	<0.001
2/14/2018	<0.001	<0.001	<0.001				
6/26/2018	<0.001	<0.001	<0.001	<0.001	<0.001	0.0041 (J)	<0.001
12/18/2018	<0.001	<0.001	<0.001	<0.001	<0.001	0.0048 (J)	<0.001
8/27/2019	<0.001	<0.001		<0.001	<0.001	0.0028 (J)	<0.001
8/29/2019			<0.001				
10/15/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.0035 (J)	<0.001
3/3/2020				<0.001	<0.001	0.0023 (J)	<0.001
8/18/2020	<0.001	<0.001	<0.001	0.0011 (J)	<0.001	0.0015 (J)	<0.001
9/15/2020	<0.001	<0.001	<0.001	0.0007 (J)	<0.001	0.0015 (J)	<0.001
3/1/2021				<0.001			
3/2/2021	<0.001	<0.001	<0.001		<0.001	0.0015 (J)	<0.001
9/21/2021	<0.001	<0.001				0.002 (J)	<0.001
9/22/2021			<0.001	0.0012 (J)	<0.001		
2/1/2022	<0.001	<0.001	<0.001	0.0013 (J)	<0.001	0.002 (J)	<0.001
8/23/2022	0.000413 (J)	<0.001	<0.001	0.0024	<0.001	0.00151	<0.001

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.001						
9/6/2016					<0.001		
9/8/2016		<0.001	<0.001	<0.001		<0.001	
11/15/2016	<0.001						
11/17/2016		<0.001					
11/18/2016			<0.001				
11/21/2016				<0.001	<0.001	<0.001	
2/20/2017	<0.001						
2/21/2017		<0.001	<0.001				
2/22/2017				<0.001	<0.001	<0.001	
6/12/2017	<0.001						
6/13/2017		<0.001	<0.001				
6/14/2017				<0.001	<0.001	<0.001	
9/26/2017	<0.001						
9/27/2017		<0.001	<0.001	<0.001	<0.001	<0.001	
2/13/2018	<0.001						
2/14/2018		<0.001	<0.001	<0.001	<0.001	<0.001	
3/6/2018							<0.001
5/1/2018							<0.001
6/26/2018	<0.001	<0.001					
6/27/2018			<0.001	<0.001		<0.001	
6/28/2018					<0.001		<0.001
7/31/2018							<0.001
8/23/2018							<0.001
9/19/2018							<0.001
10/29/2018							<0.001
11/28/2018							<0.001
12/18/2018	<0.001	<0.001		<0.001	<0.001		
12/19/2018						<0.001	
12/20/2018			<0.001				<0.001
8/27/2019	<0.001	<0.001			<0.001	<0.001	
8/28/2019			<0.001	<0.001			<0.001
10/15/2019	<0.001	<0.001					
10/16/2019				<0.001			
12/3/2019							<0.001
12/4/2019			<0.001		<0.001	<0.001	
3/3/2020	<0.001						
8/18/2020	<0.001						
8/19/2020		0.00081 (J)	<0.001	<0.001	0.00078 (J)	<0.001	
8/20/2020							0.00076 (J)
9/15/2020	<0.001	0.0008 (J)		<0.001			
9/16/2020			<0.001		0.0022 (J)	<0.001	<0.001
3/1/2021	<0.001						
3/2/2021		0.001 (J)					<0.001
3/3/2021			<0.001	<0.001	<0.001		
3/4/2021						<0.001	
9/22/2021	<0.001						
9/23/2021							<0.001
9/28/2021		0.00089 (J)	<0.001	<0.001	0.001 (J)	<0.001	
2/1/2022	<0.001						
2/2/2022		0.0011 (J)			0.0012 (J)	<0.001	<0.001
2/3/2022				<0.001			

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/4/2022			<0.001				
8/23/2022	<0.001	0.00105					
8/24/2022				<0.001	0.00141		
8/25/2022			<0.001			<0.001	0.000424 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.001						
3/15/2018		<0.001					
5/1/2018	<0.001 (D)	0.0022 (J)					
6/27/2018	<0.001						
6/28/2018		<0.001					
8/1/2018	<0.001	0.0033 (J)					
8/10/2018			0.0032 (J)				
8/23/2018	<0.001		0.005 (J)				
9/19/2018	<0.001		0.0061 (J)				
10/29/2018	<0.001	<0.001	0.0065 (J)				
11/28/2018	<0.001	<0.001	0.0027 (J)				
12/19/2018	<0.001	<0.001					
12/20/2018			<0.001				
1/16/2019		<0.001					
1/17/2019			<0.001				
1/18/2019							<0.001
1/19/2019						<0.001	
2/13/2019			<0.001				
8/28/2019	<0.001						
8/29/2019		<0.001	<0.001				
10/16/2019	<0.001	<0.001	<0.001				
10/18/2019						<0.001	<0.001
8/20/2020	<0.001	<0.001	0.0012 (J)			<0.001	<0.001
9/16/2020	<0.001						
9/17/2020		<0.001	0.0007 (J)			<0.001	<0.001
3/2/2021	<0.001						
3/3/2021					0.0068 (J)		<0.001
3/4/2021		<0.001	0.001 (J)			<0.001	
3/5/2021				0.0017 (J)			
9/23/2021	<0.001						
9/27/2021		<0.001				<0.001	<0.001
9/28/2021			<0.001	0.0021 (J)	0.0029 (J)		
2/2/2022	<0.001		<0.001			<0.001	<0.001
2/3/2022		<0.001		0.0012 (J)	0.0017 (J)		
8/23/2022	0.000296 (J)						
8/24/2022		<0.001			0.00171	0.000313 (J)	<0.001
8/25/2022			0.000471 (J)	0.00109			

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				<0.001			
9/28/2021	<0.001	<0.001	<0.001				
2/2/2022				<0.001			
2/3/2022		<0.001	<0.001		<0.001		
2/4/2022	<0.001					0.00092 (J)	0.0011 (J)
8/24/2022		<0.001	<0.001	<0.001			
8/25/2022	<0.001				<0.001	0.000741 (J)	0.000286 (J)



# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				7.16	6.2	6.53	6.59
9/1/2016	6.71	6					
9/6/2016			6.49				
11/15/2016							6.67
11/16/2016	6.15	6		6.96	6.12	6.4	
11/17/2016			5.79				
2/20/2017						6.44	6.65
2/21/2017	6.52	6.09	6.15	7.15	6.24		
6/12/2017				7.31		6.4	6.64
6/13/2017	6.42	6.03	5.87		6.19		
6/14/2017	6.51						
9/26/2017	6.42	5.85	5.82	7.02	6.15	6.31	6.58
2/13/2018				7.44	6.18	6.62	6.72
2/14/2018	6.48	5.99	5.83				
6/26/2018	6.2	5.86	5.73	6.93	6.05	6.29	6.43
7/31/2018	6.37	5.99					
12/18/2018	6.5	6.08	5.78	6.76	5.92	6.57	6.7
3/19/2019	6.28	5.71	5.28	6.87	6.18	6.45	6.63
8/27/2019	6.35	6		6.79	6.09	6.37	6.49
8/29/2019			5.64				
10/15/2019	6.8	6.61	5.7	6.57	6.06	6.77	7.01
3/3/2020	6.33	5.94		6.71	6.1	6.29	6.49
3/4/2020			5.7				
8/18/2020	6.25	5.75	5.56	6.59	6.06	6.29	6.41
9/15/2020	6.01	6	5.72	6.64	6.01	6.27	6.25
3/1/2021				6.66			
3/2/2021	6.11	5.92	5.75		6.2	6.47	6.42
9/21/2021	6.53	5.87				6.32	6.36
9/22/2021			5.72	6.78	6.06		
2/1/2022	6.4	5.81	5.65	6.83	5.95	6.38	6.39
8/23/2022	6.39	5.9	5.66	6.67	5.95	6.24	6.36

# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	6.49						
9/6/2016					6.23		
9/8/2016		6.07	5.51	4.62		5.89	
11/15/2016	6.59						
11/16/2016		5.96					
11/18/2016			5.53				
11/21/2016				4.44	6.23	5.56	
2/20/2017	6.61						
2/21/2017		5.98	5.63				
2/22/2017				4.42	6.16	5.87	
6/13/2017		5.96	5.57				
6/14/2017				4.45	6.16	5.83	
9/26/2017	6.47						
9/27/2017		5.85	5.53	4.33	6.16	5.87	
2/13/2018	6.54						
2/14/2018		5.94	5.83	4.42	6.24	6.01	
3/15/2018							5.26
5/1/2018							6.14
6/26/2018	6.23	5.87					
6/27/2018			5.53	4.37		5.83	
6/28/2018					6.21		5.88
7/31/2018							6.07
9/19/2018							5.9
10/29/2018							5.93
11/28/2018							5.99
12/18/2018	6.71	5.84		4.38	6.18		
12/19/2018						5.79	
12/20/2018			5.78				6.04
3/19/2019	6.18		5.75				
3/20/2019		6.03		4.4	6.24	5.88	6.1
8/27/2019	6.35	6.01			6.17	5.85	
8/28/2019			5.51	4.39			5.86
10/15/2019	6.36	6					
10/16/2019				4.79			
10/17/2019			6.01 (D)		6.43	6.09	5.93
3/3/2020	6.59						
3/4/2020		6.02	5.8	4.5			
3/5/2020					5.99	5.74	5.95
5/12/2020						5.88	
8/18/2020	6.33						
8/19/2020		6.32	5.81	4.67	6.36	5.97	
8/20/2020							5.86
9/15/2020	6.43	6		4.53			
9/16/2020			5.81		6.29	5.79	5.27
3/1/2021	6.7						
3/2/2021		6.1					6.17
3/3/2021			5.9	4.46	6.29		
3/4/2021						5.98	
9/22/2021	6.48						
9/23/2021							5.95
9/28/2021		5.97	5.82	4.23	6.33	5.82	
2/1/2022	6.54						

# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		6.23			6.34	5.99	5.92
2/3/2022				4.23			
2/4/2022			5.97				
8/23/2022	6.51	6.11					
8/24/2022				4.39	6.38		
8/25/2022			6.03			6.06	5.74

# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/15/2018		5.26					
5/1/2018	5.85	5.38					
6/27/2018	5.87						
6/28/2018		5.03					
8/1/2018	5.79	5.22					
8/2/2018							6.18
8/3/2018						5.47	
8/10/2018			6.28				
8/23/2018			6.75				
9/19/2018	5.71		6.48				
10/29/2018	5.76	5.19	6.77				
11/28/2018	5.74	5.28	6.44				
12/19/2018	5.8	5.15					
12/20/2018			6.75				
1/16/2019		5.14					
1/17/2019			6.41				
1/18/2019							6.19
1/19/2019						5.45	
2/13/2019			6.42				
3/6/2019		6.15					
3/19/2019	5.89						
3/20/2019		5.32	6.59				
8/28/2019	5.74						
8/29/2019		5.2	6.27				
10/16/2019	5.9	5.36	7				
10/18/2019						5.79	6.44
3/4/2020	5.76	5.2	6.54				
8/20/2020	5.75	5.26	6.85			5.57	6.15
9/16/2020	5.76						
9/17/2020		4.41	6.12			4.93	5.77
10/27/2020				6.47	6.79	5.49	
3/2/2021	5.59						
3/3/2021					7.1		5.41
3/4/2021		4.34	5.87			4.57	
3/5/2021				7.06			
9/23/2021	5.74						
9/27/2021		5.05				5.34	6.04
9/28/2021			6.81	6.23	7.18		
2/2/2022	5.75		6.35			5.44	6.19
2/3/2022		5.2		6.24	6.77		
8/23/2022	5.61						
8/24/2022		5.01			7.15	5.49	6.12
8/25/2022			6.21	6.11			

# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				5.02			
9/28/2021	5.37	4	4.77				
2/2/2022				5.25			
2/3/2022		3.9	4.73		3.71		
2/4/2022	5.28					5.89	5.79
8/24/2022		3.81	4.55	5.14			
8/25/2022	5.91				3.72	5.65	5.5



# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.005						
9/6/2016					<0.005		
9/8/2016		<0.005	0.0043 (J)	0.0039 (J)		<0.005	
11/15/2016	<0.005						
11/17/2016		<0.005					
11/18/2016			0.0047 (J)				
11/21/2016				0.0058 (J)	<0.005	<0.005	
2/20/2017	<0.005						
2/21/2017		<0.005	0.0025 (J)				
2/22/2017				0.005 (J)	<0.005	0.0017 (J)	
6/12/2017	<0.005						
6/13/2017		<0.005	0.0036 (J)				
6/14/2017				0.0074 (J)	0.0045 (J)	<0.005	
9/26/2017	<0.005						
9/27/2017		<0.005	0.004 (J)	0.0068 (J)	0.0034 (J)	0.0019 (J)	
2/13/2018	<0.005						
2/14/2018		<0.005	<0.005	<0.005	<0.005	<0.005	
3/6/2018							<0.005
5/1/2018							<0.005
6/26/2018	<0.005	<0.005					
6/27/2018			0.0014 (J)	<0.005		0.0017 (J)	
6/28/2018					<0.005		<0.005
7/31/2018							<0.005
8/23/2018							<0.005
9/19/2018							<0.005
10/29/2018							<0.005
11/28/2018							<0.005
12/18/2018	<0.005	<0.005		<0.005	<0.005		
12/19/2018						0.0059 (J)	
12/20/2018			<0.005				<0.005
8/27/2019	<0.005	<0.005			0.0038 (J)	0.057	
8/28/2019			0.0017 (J)	<0.005			<0.005
10/15/2019	<0.005	<0.005					
10/16/2019				<0.005			
12/3/2019							0.0029 (J)
12/4/2019			0.0036 (J)		0.0018 (J)	0.1	
3/3/2020	<0.005						
3/4/2020		<0.005	0.0022 (J)	0.0018 (J)			
3/5/2020					<0.005	0.1	<0.005
5/12/2020						0.0989	
8/18/2020	<0.005						
8/19/2020		<0.005	<0.005	<0.005	<0.005	0.099	
8/20/2020							<0.005
9/15/2020	<0.005	<0.005		<0.005			
9/16/2020			0.0042 (J)		<0.005	0.12	<0.005
3/1/2021	<0.005						
3/2/2021		0.0021 (J)					<0.005
3/3/2021			0.0031 (J)	0.0042 (J)	<0.005		
3/4/2021						0.14	
9/22/2021	<0.005						
9/23/2021							<0.005
9/28/2021		<0.005	<0.005	0.0022 (J)	<0.005	0.13	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/1/2022	<0.005						
2/2/2022		<0.005			<0.005	0.21	<0.005
2/3/2022				<0.005			
2/4/2022			<0.005				
8/23/2022	<0.005	<0.005					
8/24/2022				<0.005	<0.005		
8/25/2022			<0.005			0.218	<0.005



# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.005						
3/15/2018		<0.005					
5/1/2018	<0.005 (D)	<0.005					
6/27/2018	<0.005						
6/28/2018		<0.005					
8/1/2018	0.0015 (J)	0.0031 (J)					
8/10/2018			<0.005				
8/23/2018	<0.005 (X)		<0.005				
9/19/2018	0.002 (J)		<0.005				
10/29/2018	<0.005	0.002 (J)	<0.005				
11/28/2018	<0.005	0.0017 (J)	<0.005				
12/19/2018	<0.005	<0.005					
12/20/2018			<0.005				
1/16/2019		<0.005					
1/17/2019			<0.005				
1/18/2019							<0.005
1/19/2019						<0.005	
2/13/2019			<0.005				
8/28/2019	<0.005						
8/29/2019		<0.005	<0.005				
10/16/2019	0.0017 (J)	0.002 (J)	<0.005				
10/18/2019						<0.005	<0.005
3/4/2020	<0.005	0.0026 (J)	<0.005				
8/20/2020	0.0016 (J)	0.0037 (J)	<0.005			<0.005	<0.005
9/16/2020	0.002 (J)						
9/17/2020		<0.005	<0.005			<0.005	<0.005
3/2/2021	0.0028 (J)						
3/3/2021					<0.005		<0.005
3/4/2021		0.0039 (J)	<0.005			<0.005	
3/5/2021				<0.005			
9/23/2021	<0.005						
9/27/2021		0.0022 (J)				<0.005	<0.005
9/28/2021			<0.005	<0.005	<0.005		
2/2/2022	<0.005		<0.005			<0.005	<0.005
2/3/2022		<0.005		<0.005	<0.005		
8/23/2022	<0.005						
8/24/2022		0.00176 (J)			<0.005	<0.005	<0.005
8/25/2022			<0.005	<0.005			

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				0.0079			
9/28/2021	<0.005	0.0034 (J)	0.0049 (J)				
2/2/2022				0.0031 (J)			
2/3/2022		0.0016 (J)	0.0026 (J)		0.09		
2/4/2022	<0.005					<0.005	<0.005
8/24/2022		0.00348 (J)	0.00417 (J)	0.0051			
8/25/2022	<0.005				0.113	<0.005	<0.005

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				7.5	0.38 (J)	2.7	0.81 (J)
9/1/2016	2.7	1.7					
9/6/2016			38				
11/15/2016							<1 (J)
11/16/2016	3.6	1.2		6.6	<1 (J)	3.4	
11/17/2016			84				
2/20/2017						3.9 (B-01)	1 (B-01)
2/21/2017	3	1.1	39	6.1	1.5		
6/12/2017				5		3.7	0.94 (J)
6/13/2017		1.1	35		0.67 (J)		
6/14/2017	2.6						
9/26/2017	2.5	1.3	89	5.4	0.62 (J)	4.1	0.92 (J)
2/13/2018				4.7 (J)	<1	6.6	<1
2/14/2018	2.1 (J)	<1	82.2				
6/26/2018	2	0.84 (J)	84.2	6.2	0.69 (J)	3.5	0.91 (J)
7/31/2018	1.9	0.63 (J)					
12/18/2018	2.1	0.66 (J)	83.4	5.9	0.72 (J)	4.3	0.68 (J)
3/19/2019	2.2	0.75 (J)	65	6 (D)	0.78 (J)	3	0.74 (J)
10/15/2019	1.9	0.61 (J)	30	5.2	0.47 (J)	3.8	0.68 (J)
3/3/2020	1.8	0.51 (J)		7.1	0.93 (J)	2.8	0.71 (J)
3/4/2020			38.6				
9/15/2020	1.7	<1	41.5	5.9	<1	1.7	<1
3/1/2021				4.7			
3/2/2021	1.7	0.51 (J)	54		<1	2.2	<1
9/21/2021	1.7	0.51 (J)				2.3	<1
9/22/2021			34.6	5.2	<1		
2/1/2022	1.4	<1	36.8	5.4	<1	2	<1
8/23/2022	1.84	0.636	24.4	5.66	0.452	2.21	0.521

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	0.6 (J)						
9/6/2016					310		
9/8/2016		280	300	460		370	
11/15/2016	0.68 (J)						
11/17/2016		200					
11/18/2016			320				
11/21/2016				500	300	420	
2/20/2017	0.98 (J)						
2/21/2017		360	270				
2/22/2017				570	280	380	
6/12/2017	0.54 (J)						
6/13/2017		290	230				
6/14/2017				440	290	400	
9/26/2017	0.53 (J)						
9/27/2017		310	260	380	260	400	
2/13/2018	<1						
2/14/2018		260	232	280	250	383	
3/6/2018							111
5/1/2018							112
6/26/2018	0.54 (J)	231					
6/27/2018			205	281		372	
6/28/2018					276		109
7/31/2018							107
8/23/2018							108
9/19/2018							117
10/29/2018							127
11/28/2018							133
12/18/2018	0.39 (J)	231		293	440		
12/19/2018						370	
12/20/2018			200				113
3/19/2019	0.68 (J)		199				
3/20/2019		235 (D)		278	623	409	127
10/15/2019	0.48 (J)	174					
10/16/2019				266			
12/3/2019							105
12/4/2019			241		327	293	
3/3/2020	2.5						
3/4/2020		165	205	238			
3/5/2020					369	269	106
9/15/2020	<1	126		241			
9/16/2020			190		334	255	103
3/1/2021	0.74 (J)						
3/2/2021		139					98.3
3/3/2021			172	341	371		
3/4/2021						185	
9/22/2021	<1						
9/23/2021							97.5
9/28/2021		112	137	250	612	189	
2/1/2022	<1						
2/2/2022		117			580	210	90.1
2/3/2022				274			
2/4/2022			172				

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
8/23/2022	0.479	158					
8/24/2022				298	935		
8/25/2022			176			254	114

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	1560						
3/15/2018		1590					
5/1/2018	1465 (D)	1550					
6/27/2018	1450						
6/28/2018		1530					
8/1/2018	1560	1580					
8/2/2018							8.9
8/3/2018						1170	
8/10/2018			183				
8/23/2018	1470		145				
9/19/2018	1500		178				
10/29/2018	1720	1750	157				
11/28/2018	1730	1780	189				
12/19/2018	1520	1650					
12/20/2018			150				
1/16/2019		589 (O)					
1/17/2019			157				
1/18/2019							0.64 (J)
1/19/2019						1140	
2/13/2019			169				
3/19/2019	1100						
3/20/2019		1740	186.5 (D)				
10/16/2019	1560	1590	155				
10/18/2019						<1	0.76 (J)
3/4/2020	1380	1370	129				
9/16/2020	1360						
9/17/2020		1330	165			1030	0.53 (J)
10/27/2020				492	357	893	
3/2/2021	1360						
3/3/2021					360		0.66 (J)
3/4/2021		1250	114			909	
3/5/2021				698			
9/23/2021	1240						
9/27/2021		1180				933	<1
9/28/2021			132	866	294		
2/2/2022	1170		126			889	<1
2/3/2022		1270		903	339		
8/23/2022	1410						
8/24/2022		1400			377	1240	0.872
8/25/2022			142	1060			

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				1420			
9/28/2021	259	628	1670				
2/2/2022				1230			
2/3/2022		767	2020		2600		
2/4/2022	336					195	451
8/24/2022		840	1770	1800			
8/25/2022	294				2900	234	571





# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	<0.002						
9/6/2016					<0.002		
9/8/2016		<0.002	<0.002	<0.002		<0.002	
11/15/2016	<0.002						
11/17/2016		<0.002					
11/18/2016			<0.002				
11/21/2016				0.0002 (J)	<0.002	<0.002	
2/20/2017	<0.002						
2/21/2017		<0.002	<0.002				
2/22/2017				0.0002 (J)	<0.002	<0.002	
6/12/2017	<0.002						
6/13/2017		<0.002	<0.002				
6/14/2017				0.0002 (J)	<0.002	<0.002	
9/26/2017	<0.002						
9/27/2017		<0.002	<0.002	0.0002 (J)	<0.002	<0.002	
2/13/2018	<0.002						
2/14/2018		<0.002	<0.002	0.00018 (J)	<0.002	<0.002	
3/6/2018							<0.002
5/1/2018							<0.002
6/26/2018	<0.002	<0.002					
6/27/2018			<0.002	0.00017 (J)		<0.002	
6/28/2018					<0.002		<0.002
7/31/2018							<0.002
8/23/2018							<0.002
9/19/2018							<0.002
10/29/2018							<0.002
11/28/2018							<0.002
12/18/2018	<0.002	<0.002		0.00017 (J)	<0.002		
12/19/2018						<0.002	
12/20/2018			<0.002				<0.002
8/27/2019	<0.002	<0.002			<0.002	<0.002	
8/28/2019			<0.002	0.00017 (J)			<0.002
10/15/2019	<0.002	<0.002					
10/16/2019				0.00017 (J)			
12/3/2019							<0.002
12/4/2019			<0.002		<0.002	<0.002	
3/3/2020	<0.002						
3/4/2020		<0.002	<0.002	0.00016 (J)			
3/5/2020					<0.002	<0.002	<0.002
8/18/2020	<0.002						
8/19/2020		<0.002	<0.002	0.00016 (J)	<0.002	<0.002	
8/20/2020							<0.002
9/15/2020	<0.002	<0.002		0.00016 (J)			
9/16/2020			<0.002		<0.002	<0.002	<0.002
3/1/2021	<0.002						
3/2/2021		<0.002					<0.002
3/3/2021			<0.002	0.00018 (J)	<0.002		
3/4/2021						<0.002	
9/22/2021	<0.002						
9/23/2021							<0.002
9/28/2021		<0.002	<0.002	<0.002	<0.002	<0.002	
2/1/2022	<0.002						

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
2/2/2022		<0.002			<0.002	<0.002	<0.002
2/3/2022				<0.002			
2/4/2022			<0.002				
8/23/2022	<0.002	<0.002					
8/24/2022				<0.002	<0.002		
8/25/2022			<0.002			<0.002	<0.002

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	<0.002						
3/15/2018		<0.002					
5/1/2018	<0.002 (D)	<0.002					
6/27/2018	<0.002						
6/28/2018		<0.002					
8/1/2018	<0.002	<0.002					
8/10/2018			<0.002				
8/23/2018	<0.002		<0.002				
9/19/2018	<0.002		<0.002				
10/29/2018	<0.002	<0.002	<0.002				
11/28/2018	<0.002	<0.002	<0.002				
12/19/2018	<0.002	<0.002					
12/20/2018			<0.002				
1/16/2019		<0.002					
1/17/2019			<0.002				
1/18/2019							<0.002
1/19/2019						<0.002	
2/13/2019			<0.002				
8/28/2019	<0.002						
8/29/2019		<0.002	<0.002				
10/16/2019	<0.002	<0.002	<0.002				
10/18/2019						<0.002	<0.002
3/4/2020	<0.002	<0.002	<0.002				
8/20/2020	<0.002	<0.002	<0.002			<0.002	<0.002
9/16/2020	<0.002						
9/17/2020		<0.002	<0.002			<0.002	<0.002
3/2/2021	<0.002						
3/3/2021					<0.002		<0.002
3/4/2021		<0.002	<0.002			<0.002	
3/5/2021				<0.002			
9/23/2021	<0.002						
9/27/2021		<0.002				<0.002	<0.002
9/28/2021			<0.002	<0.002	<0.002		
2/2/2022	<0.002		<0.002			<0.002	<0.002
2/3/2022		<0.002		<0.002	<0.002		
8/23/2022	<0.002						
8/24/2022		<0.002			<0.002	<0.002	<0.002
8/25/2022			<0.002	<0.002			

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				<0.002			
9/28/2021	<0.002	<0.002	<0.002				
2/2/2022				<0.002			
2/3/2022		<0.002	<0.002		<0.002		
2/4/2022	<0.002					<0.002	<0.002
8/24/2022		<0.002	<0.002	<0.002			
8/25/2022	<0.002				<0.002	<0.002	<0.002

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)
8/31/2016				151	88	138	154
9/1/2016	142	69					
9/6/2016			146				
11/15/2016							123
11/16/2016	100	100		69	41	77	
11/17/2016			211				
2/20/2017						170	158
2/21/2017	71	37	151	68	<10		
6/12/2017				161		132	142
6/13/2017		84	130		53		
6/14/2017	140						
9/26/2017	149	68	160	167	45	108	138
2/13/2018				165	63	141	150
2/14/2018	137	138	194				
6/26/2018	142	90	221	188	71	133	154
7/31/2018	133	83					
12/18/2018	135	85	208	145 (X)	78 (X)	138 (X)	147
3/19/2019	132 (JX)	82 (JX)	161 (JX)	146.5 (D)	68	130	146
10/15/2019	134	89	124	140	66	175	144
3/3/2020	115	72		155	41	<10	130
3/4/2020			118				
9/15/2020	95	60	109	116	69	100	116
3/1/2021				98			
3/2/2021	93	43	105		43	80	96
9/21/2021	117	56				108	104
9/22/2021			128	129	66		
2/1/2022	114	63	130	126	72	129	124
8/23/2022	104	55	103	117	45	107	101

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/1/2016	299						
9/6/2016					505		
9/8/2016		460	478	654		607	
11/15/2016	41						
11/17/2016		611					
11/18/2016			503				
11/21/2016				819	515	695	
2/20/2017	133						
2/21/2017		497	380				
2/22/2017				721	504	635	
6/12/2017	61						
6/13/2017		474	354				
6/14/2017				661	536	635	
9/26/2017	29						
9/27/2017		457	376	518	432	601	
2/13/2018	61						
2/14/2018		431	503 (JX)	487	448	628	
3/6/2018							346
5/1/2018							374
6/26/2018	71	414					
6/27/2018			458 (X)	648 (X)		2280	
6/28/2018					494		333
7/31/2018							393
8/23/2018							350
9/19/2018							353
10/29/2018							329
11/28/2018							358
12/18/2018	70 (X)	401		407	715		
12/19/2018						605	
12/20/2018			344				322
3/19/2019	72		334 (JX)				
3/20/2019		410.5 (D)		391	885	564	302
10/15/2019	63	380					
10/16/2019				2030			
12/3/2019							362
12/4/2019			422		612	526	
3/3/2020	54						
3/4/2020		330	326	391			
3/5/2020					681	489	297
9/15/2020	79	272		281			
9/16/2020			301		634	428	275
3/1/2021	39						
3/2/2021		280					264
3/3/2021			288	515	690		
3/4/2021						350	
9/22/2021	62						
9/23/2021							277
9/28/2021		270	262	457	1050	375	
2/1/2022	61						
2/2/2022		283			1110	443	276
2/3/2022				419			
2/4/2022			301				

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWA-6S (bg)	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
8/23/2022	52	315					
8/24/2022				383	1540		
8/25/2022			311			437	248

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/6/2018	2200						
3/15/2018		2440					
5/1/2018	2080 (D)	2190					
6/27/2018	31 (OX)						
6/28/2018		2290					
8/1/2018	2190	2360					
8/2/2018							123
8/3/2018						1900	
8/10/2018			344				
8/23/2018	2160		333				
9/19/2018	2160		364				
10/29/2018	2130	2300	334				
11/28/2018	2320	2300	357				
12/19/2018	2060	2190					
12/20/2018			355				
1/16/2019		2270					
1/17/2019			347				
1/18/2019							103
1/19/2019						1660	
2/13/2019			350				
3/19/2019	2050 (JX)						
3/20/2019		2280	360 (D)				
10/16/2019	2220	2280	346				
10/18/2019						1550	99
3/4/2020	2140	2270	351				
9/16/2020	2090						
9/17/2020		1910	329			1600	101
10/27/2020				914	680	1200	
3/2/2021	1680						
3/3/2021					598		76
3/4/2021		1520	383			830	
3/5/2021				1210			
9/23/2021	1770						
9/27/2021		1800				1560	88
9/28/2021			336	1470	650		
2/2/2022	1850		160			1590	98
2/3/2022		1850		1380	686		
8/23/2022	2060						
8/24/2022		1990			715	1740	90
8/25/2022			296	1750			



# Time Series

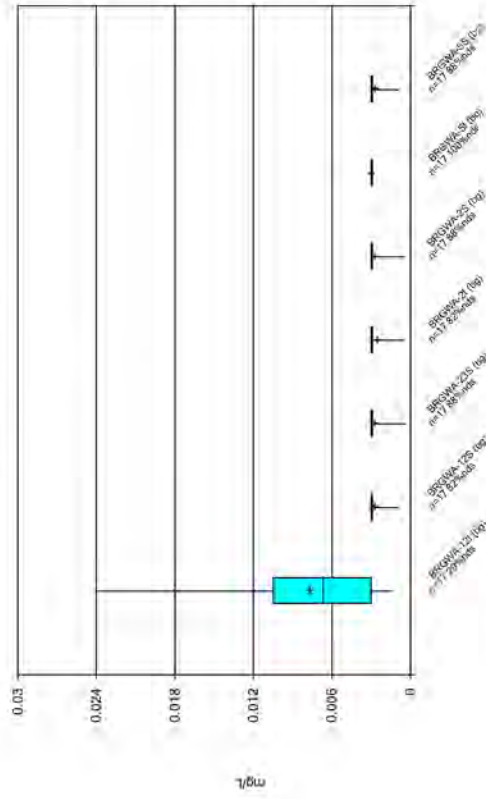
Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/4/2022 3:45 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I	PZ-62I
9/27/2021				2100			
9/28/2021	542	1120	2600				
2/2/2022				1970			
2/3/2022		1170	2480		3610		
2/4/2022	630					403	818
8/24/2022		1380	2830	2400			
8/25/2022	554				4370	419	918

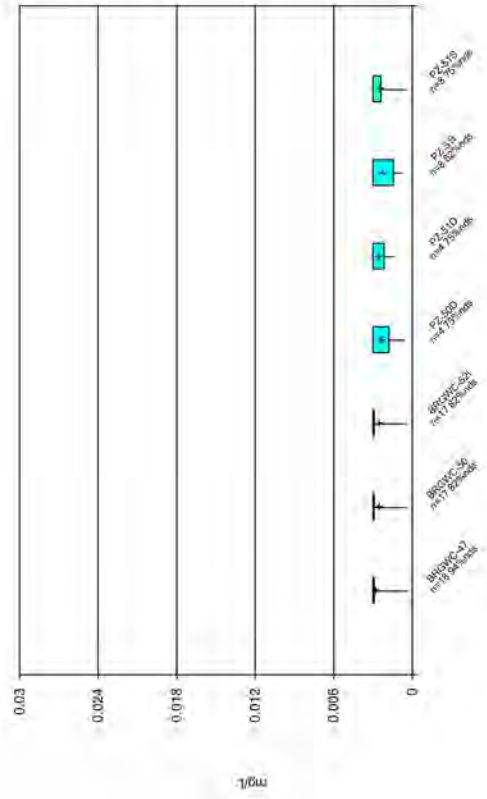
FIGURE B.

### Box & Whiskers Plot



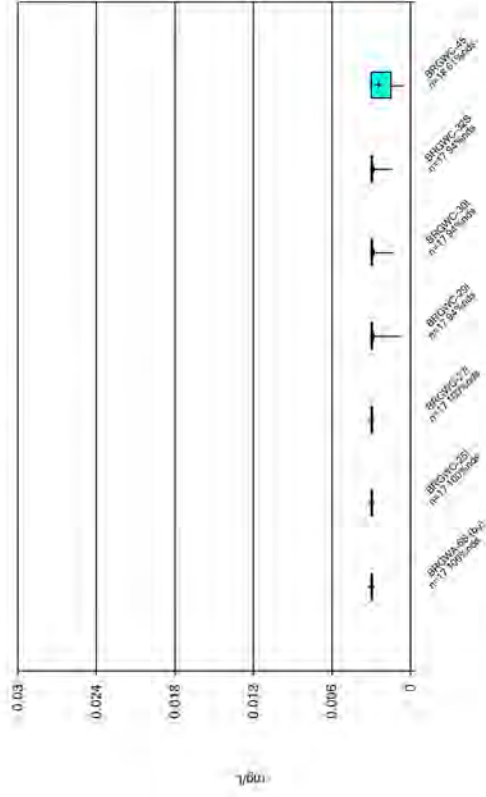
Constituent: Antimony Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



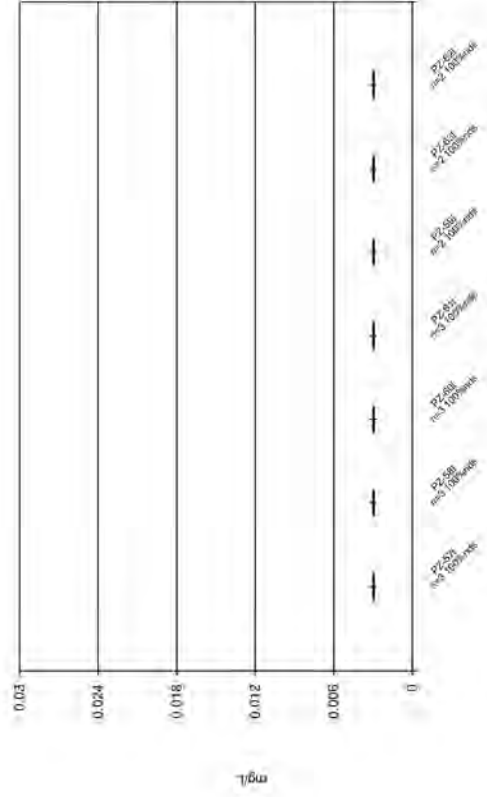
Constituent: Antimony Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



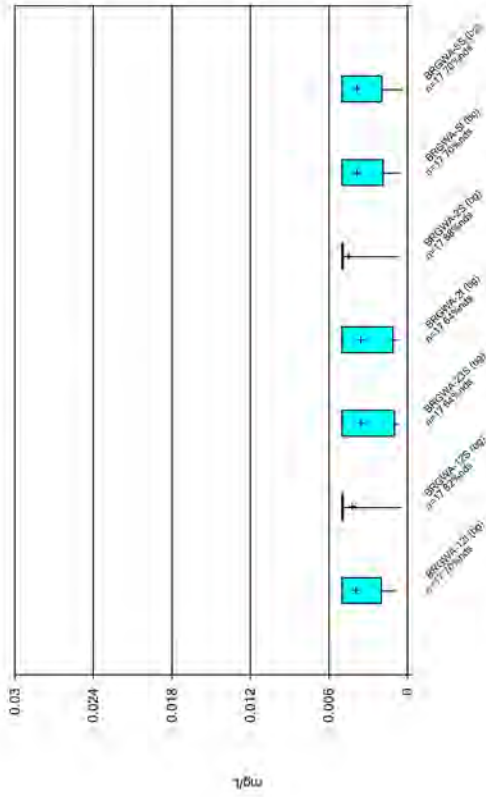
Constituent: Antimony Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



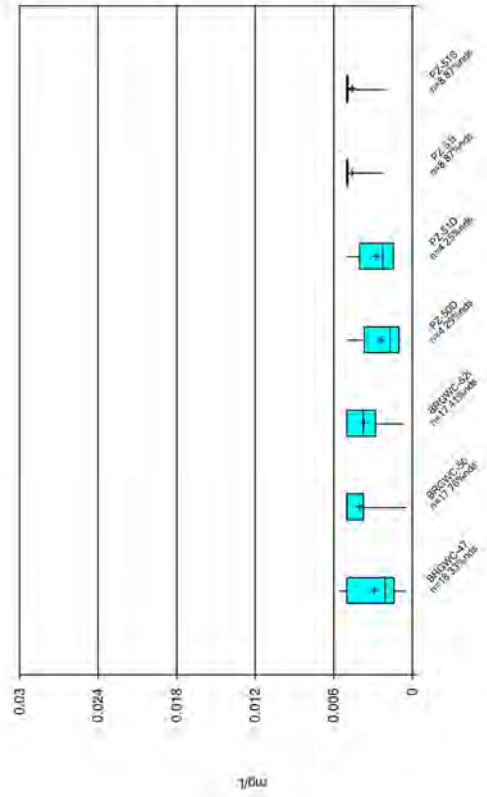
Constituent: Antimony Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



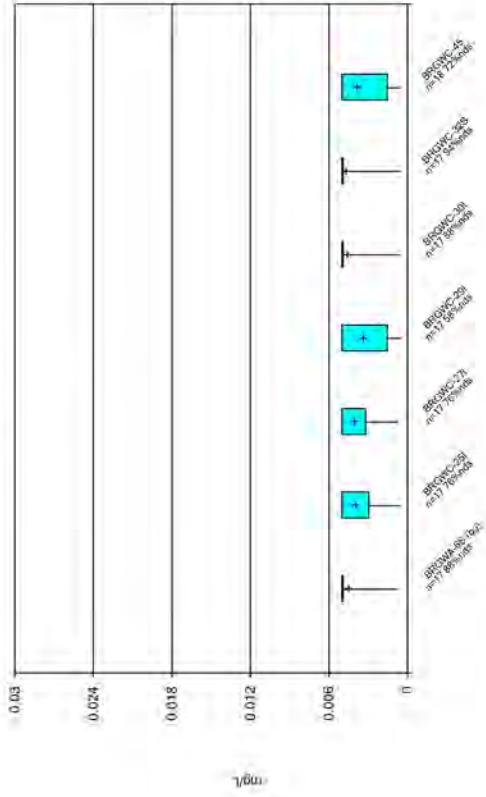
Constituent: Arsenic Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



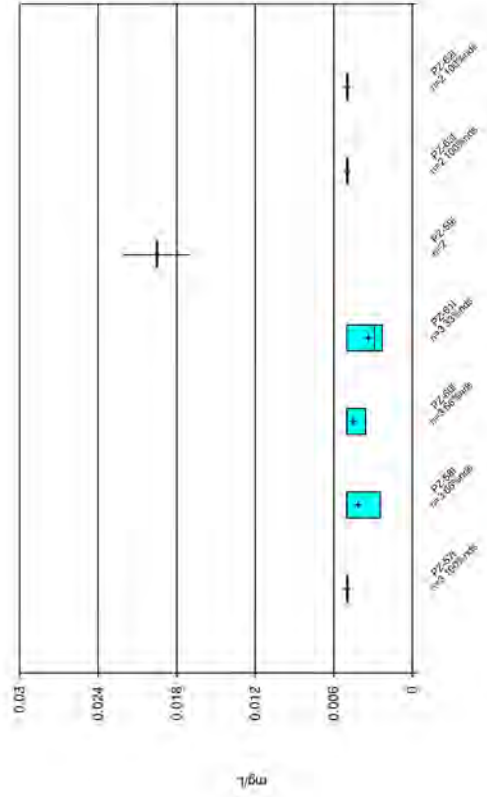
Constituent: Arsenic Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



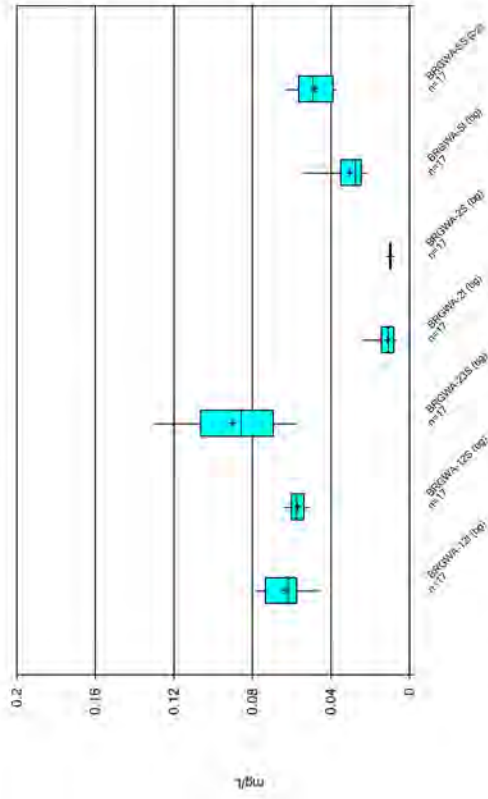
Constituent: Arsenic Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



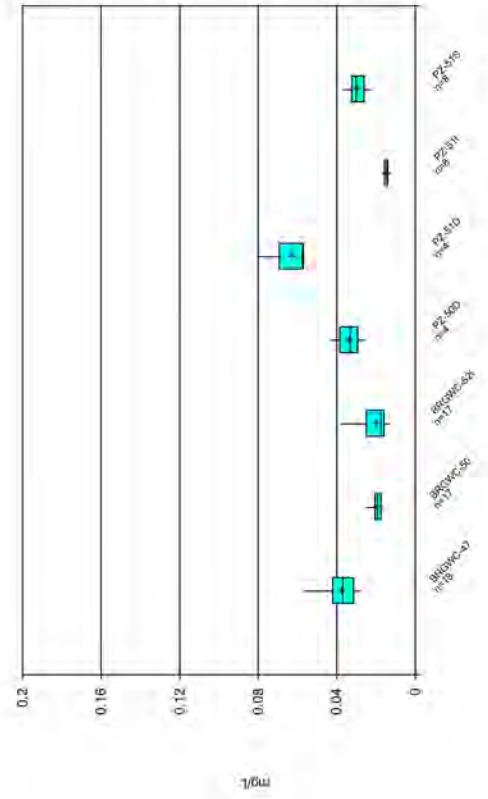
Constituent: Arsenic Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



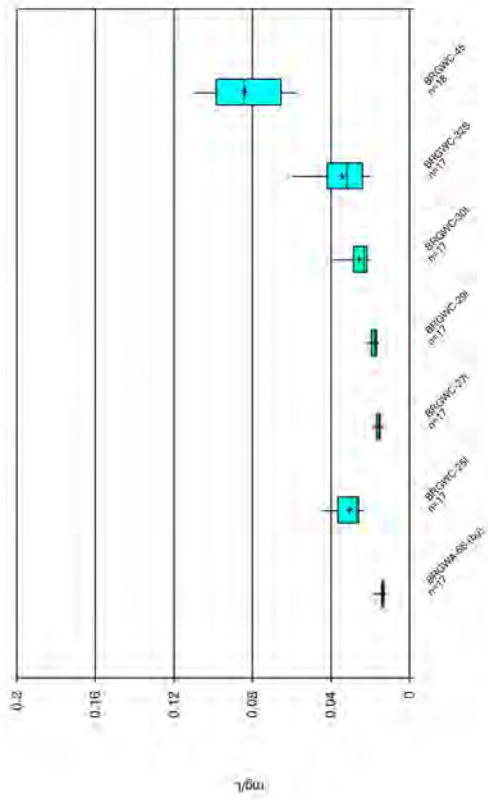
Constituent: Barium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



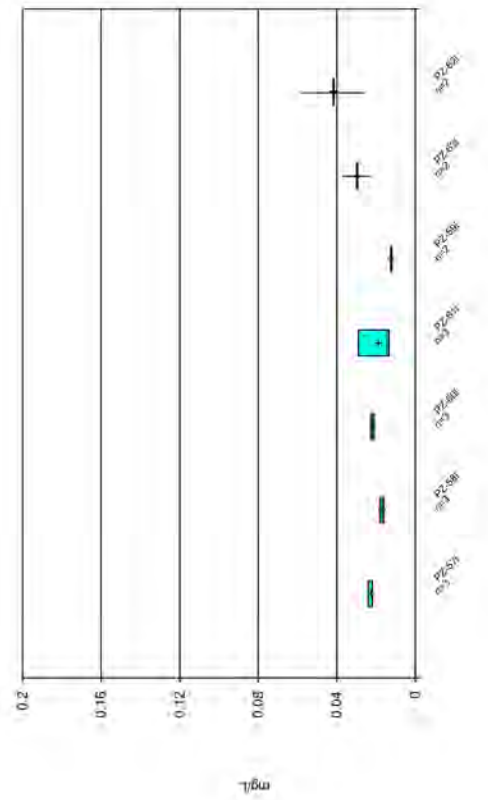
Constituent: Barium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



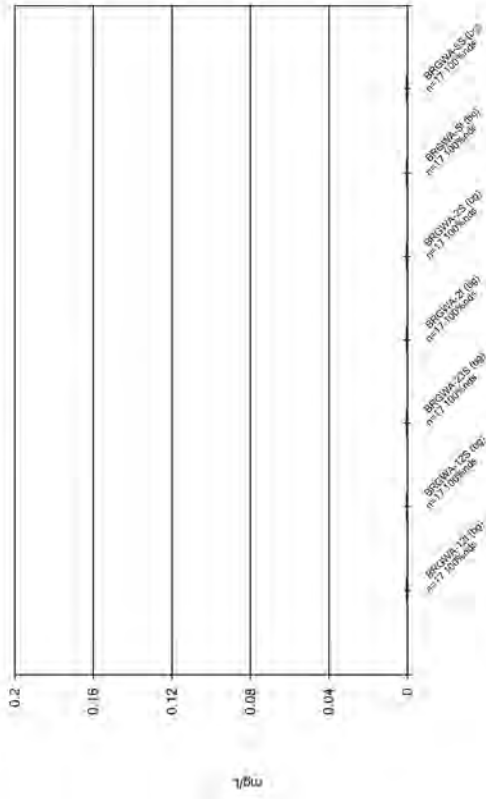
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



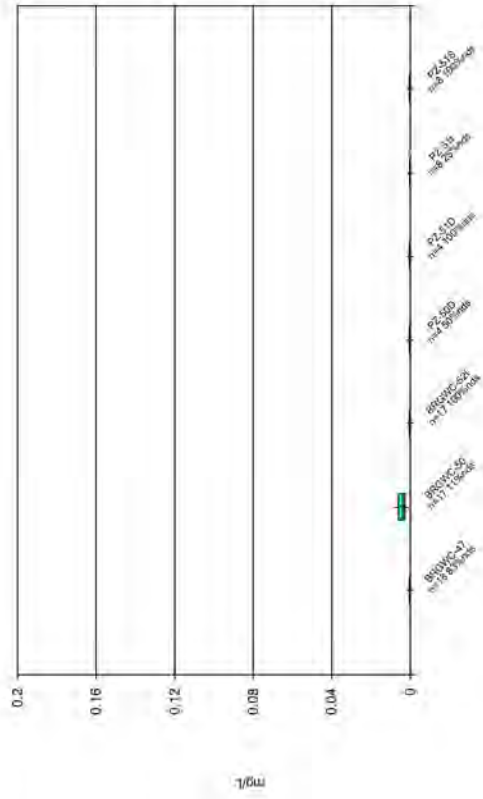
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



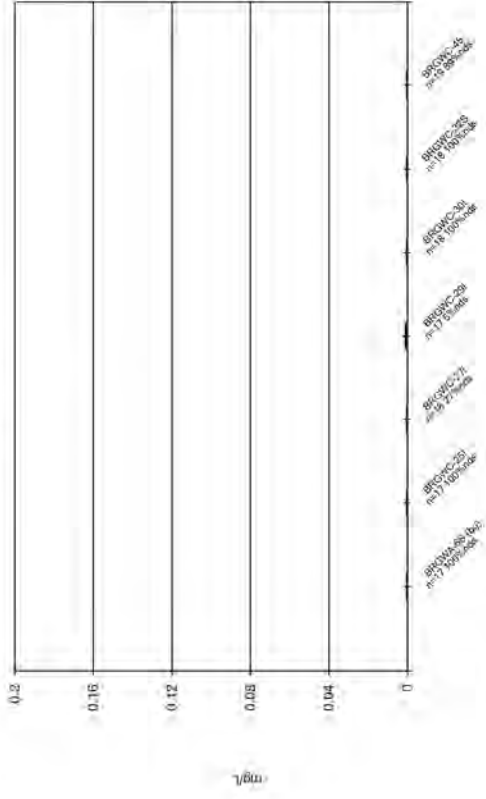
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



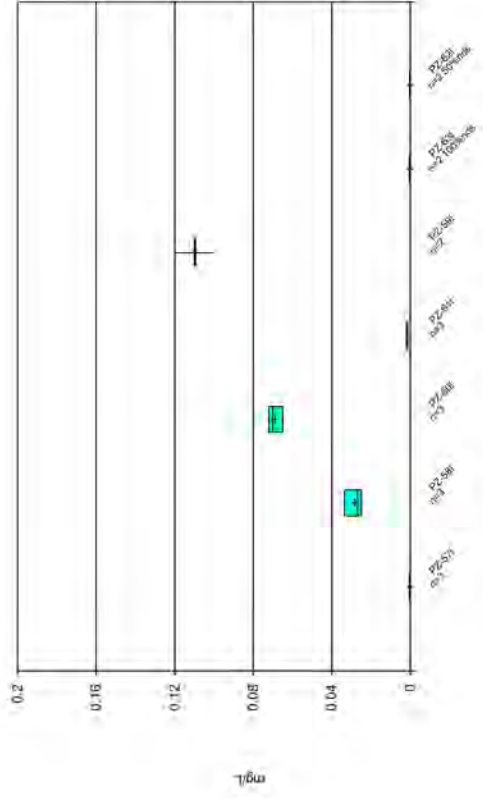
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



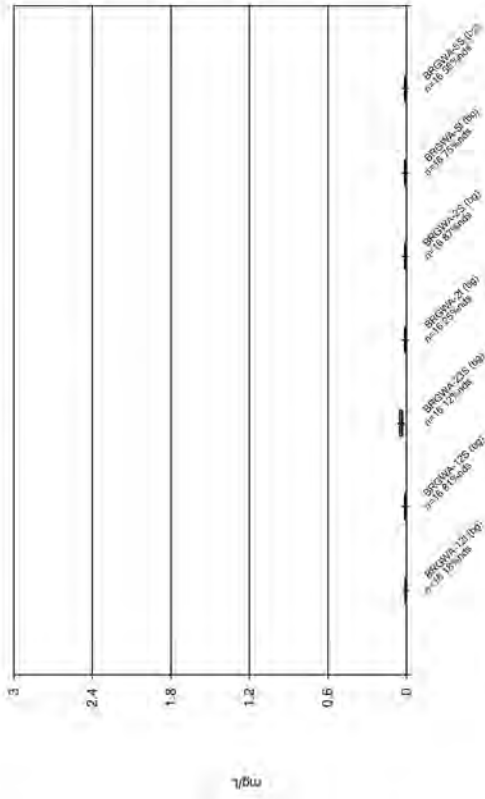
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



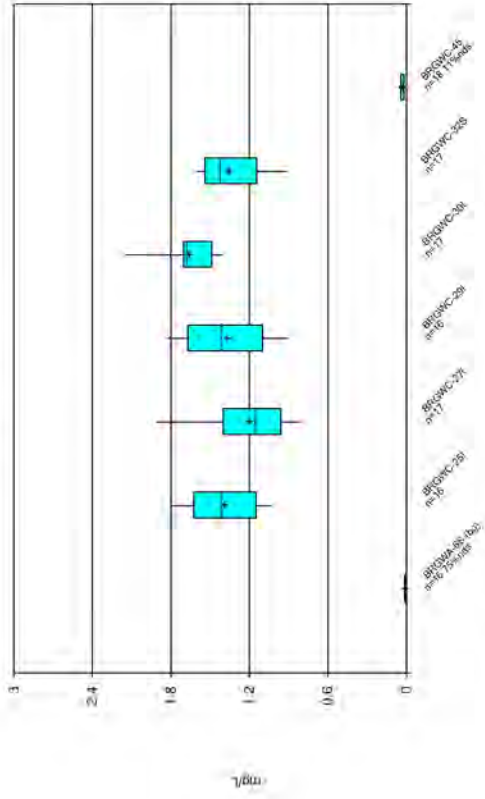
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



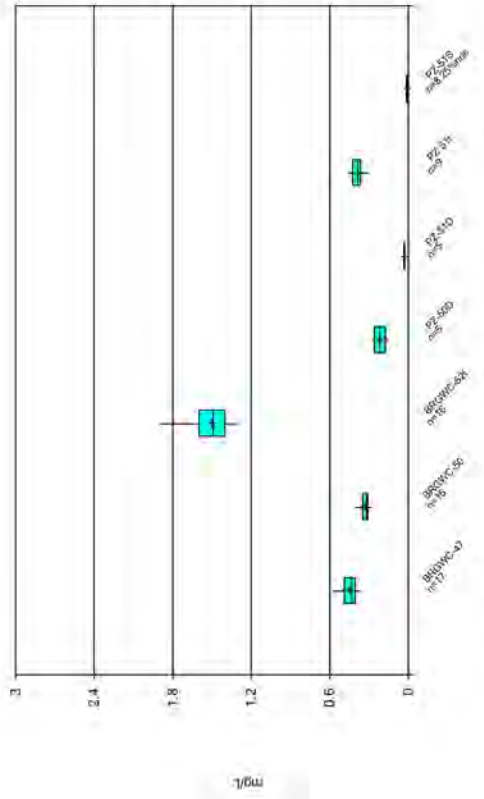
Constituent: Boron Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



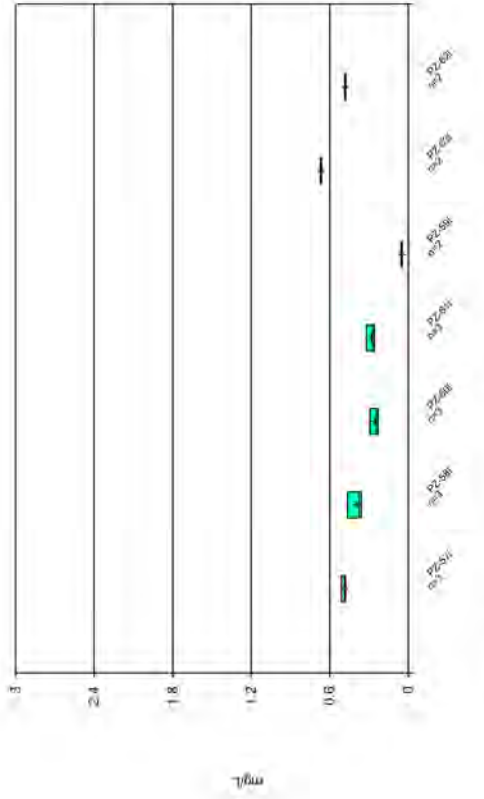
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Boron Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

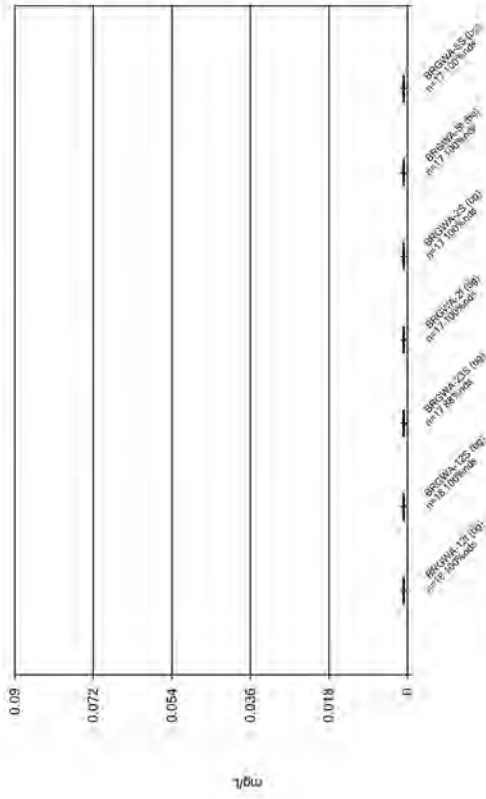
### Box & Whiskers Plot



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Plant Branch Client: Southern Company Data: Plant Branch AP

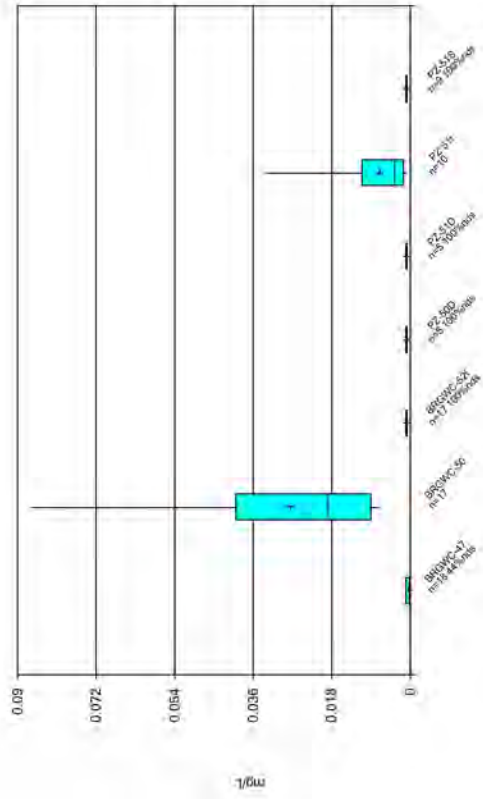


### Box & Whiskers Plot



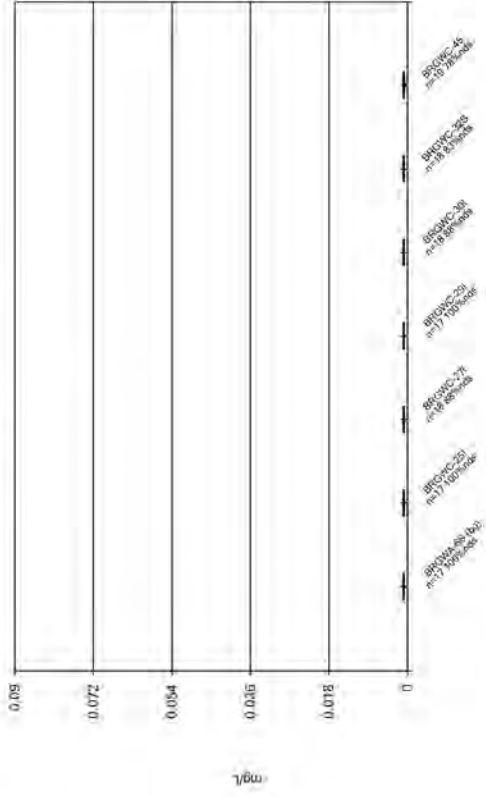
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



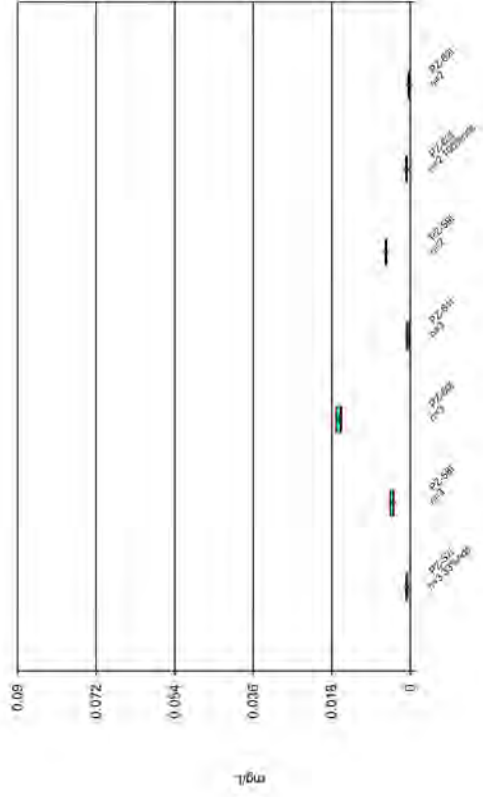
Constituent: Cadmium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Cadmium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

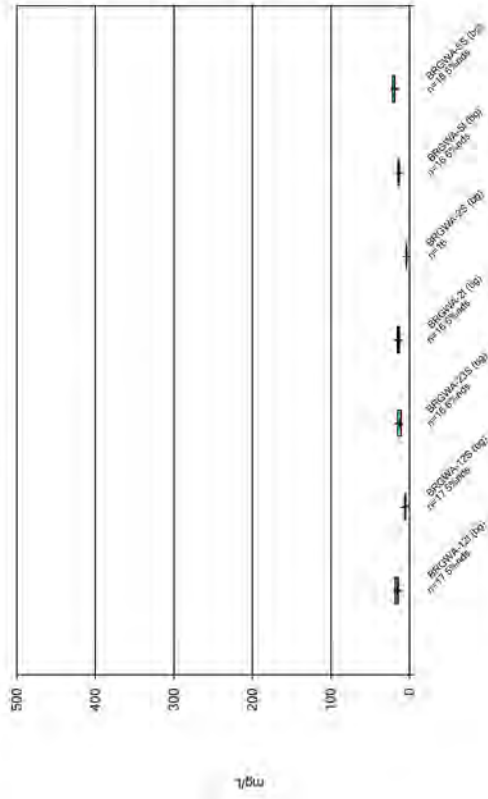
### Box & Whiskers Plot



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 Plant Branch Client: Southern Company Data: Plant Branch AP

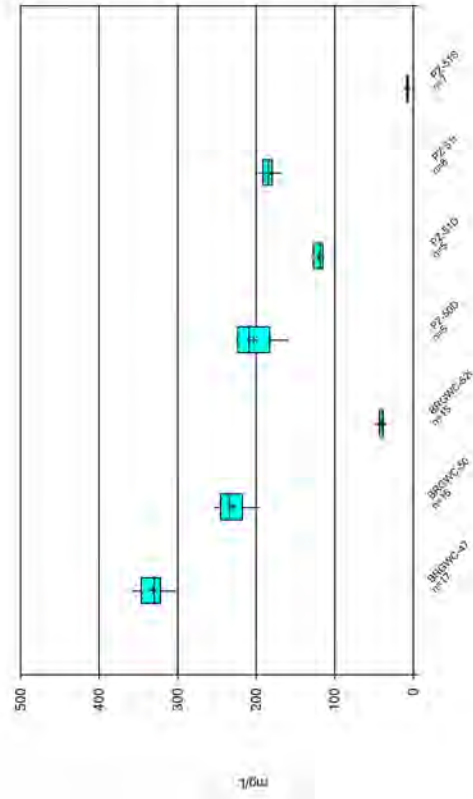


### Box & Whiskers Plot



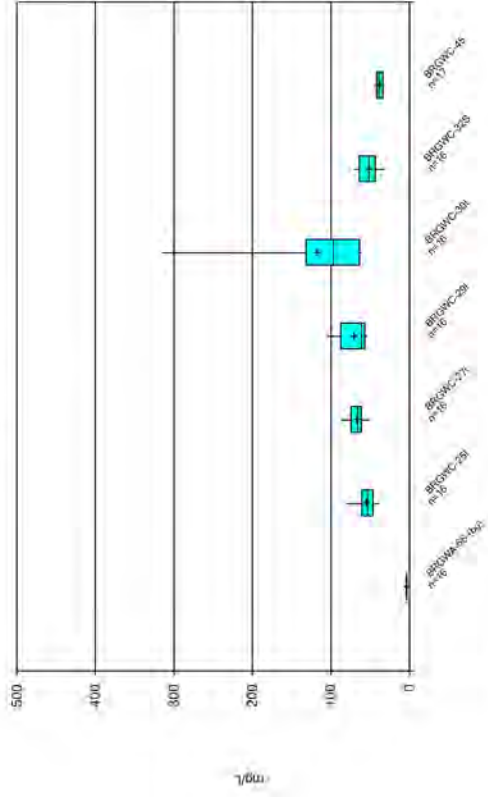
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



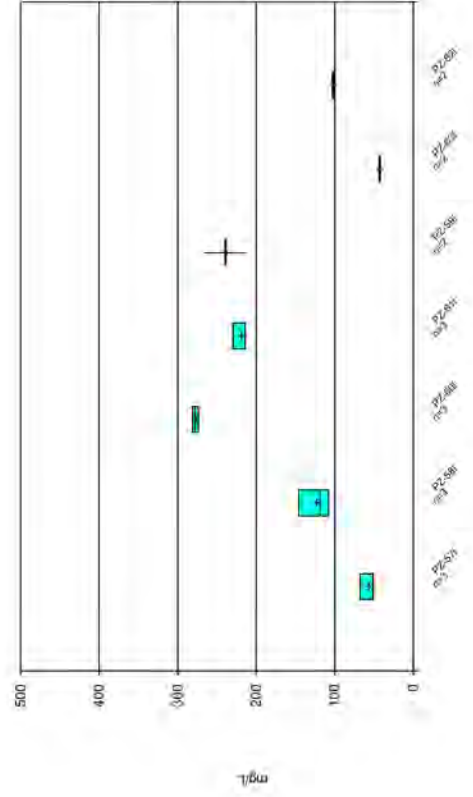
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



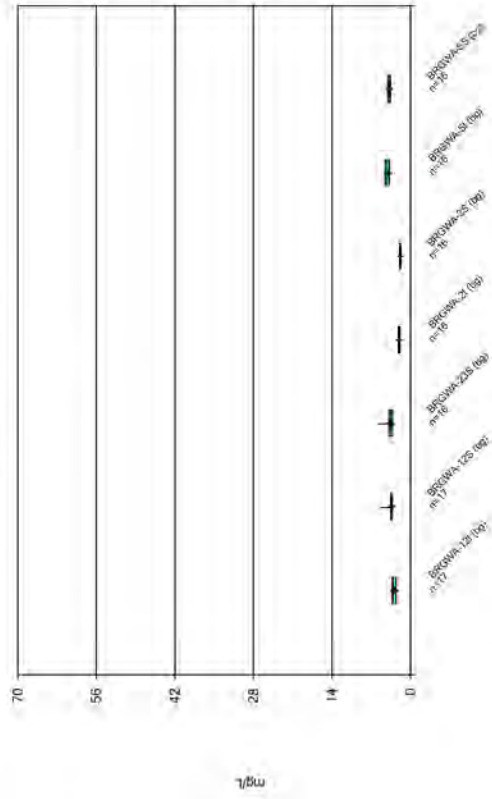
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



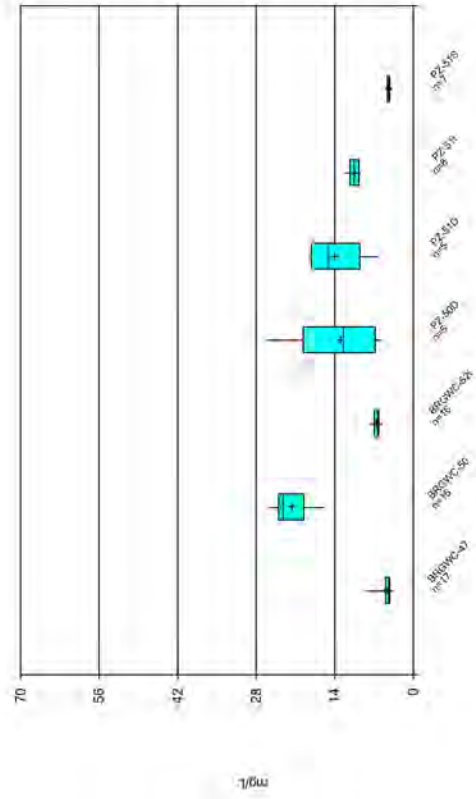
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



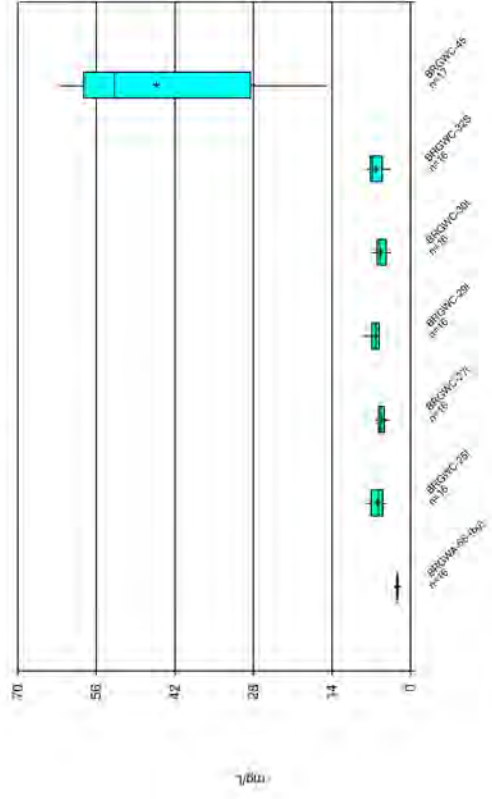
Constituent: Chloride Analysis Run 11/4/2022 3:46 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



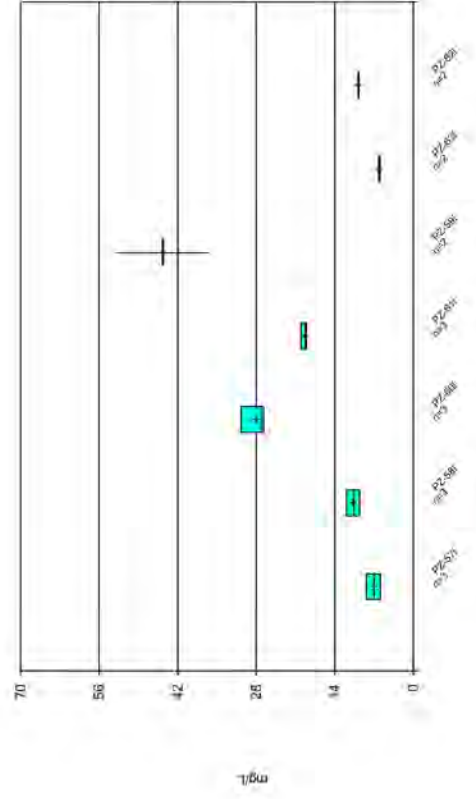
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### Box & Whiskers Plot



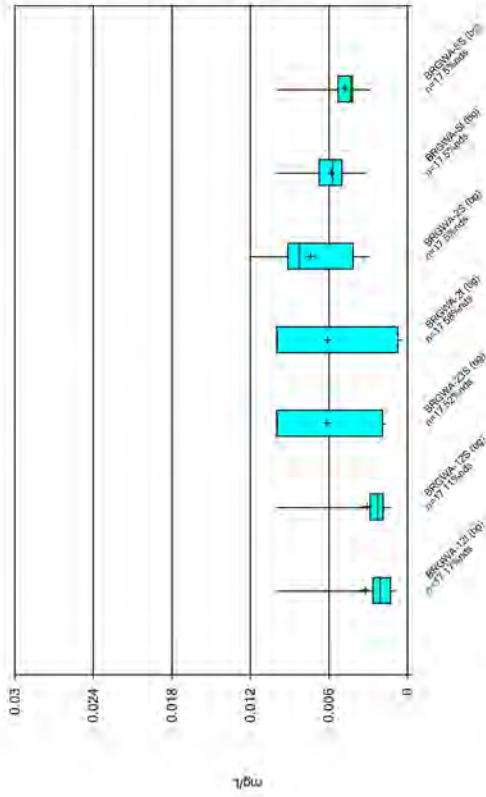
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### Box & Whiskers Plot



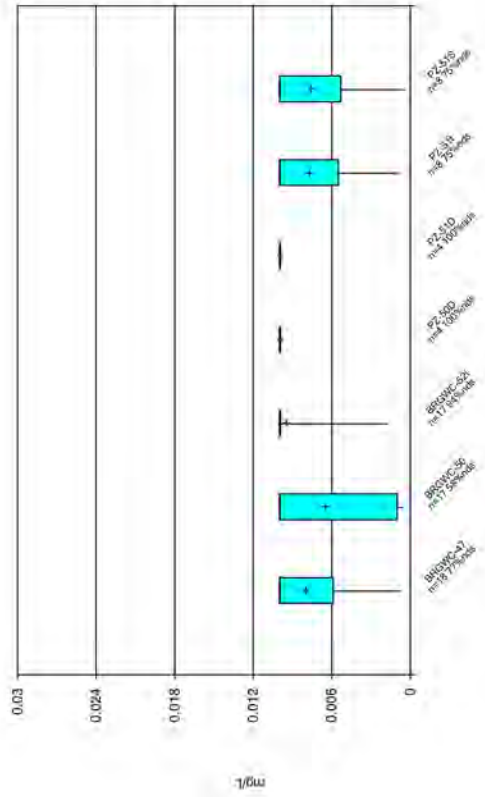
Constituent: Chloride Analysis Run 11/4/2022 3:46 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



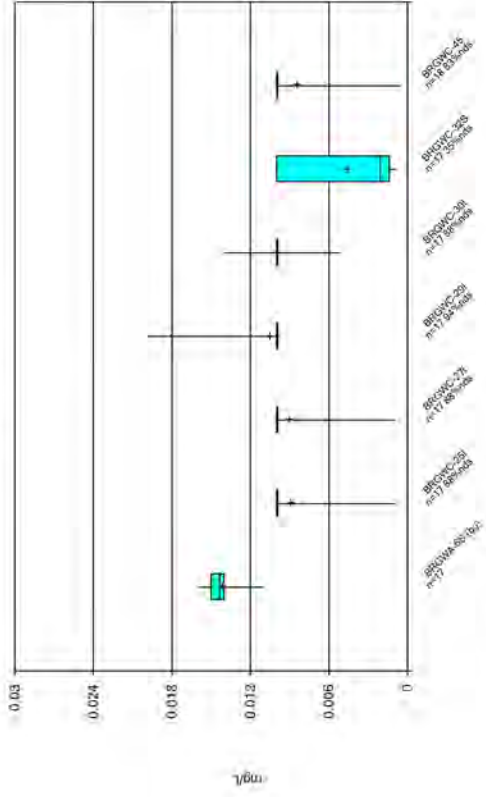
Constituent: Chromium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



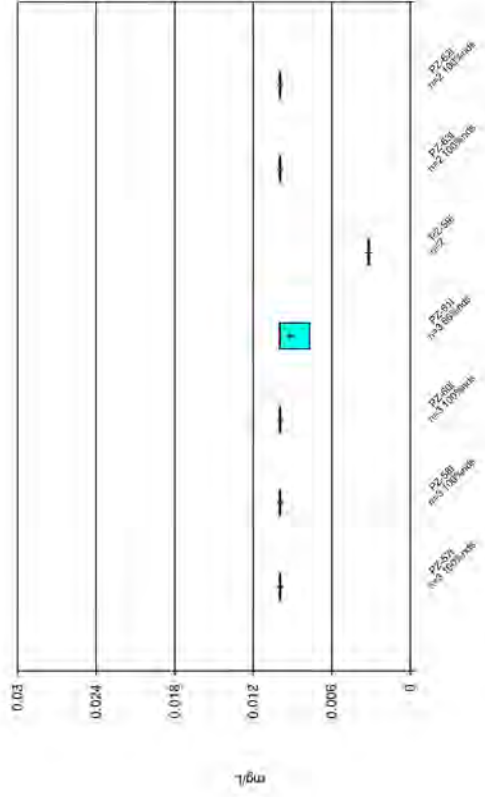
Constituent: Chromium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Chromium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

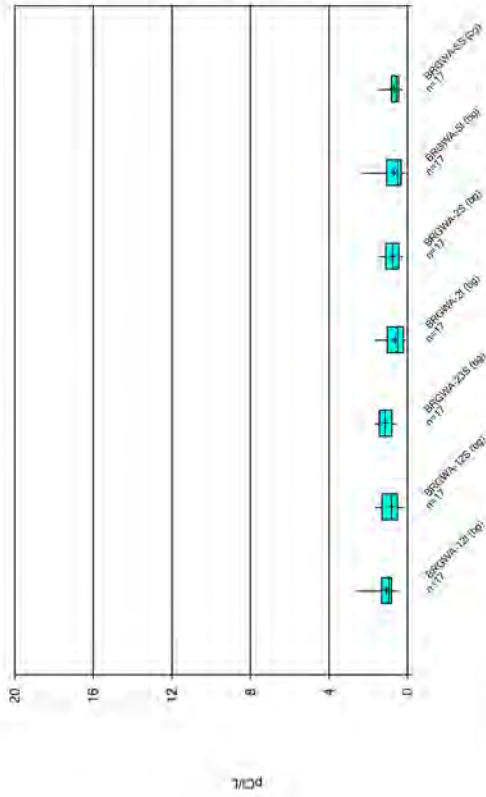
### Box & Whiskers Plot



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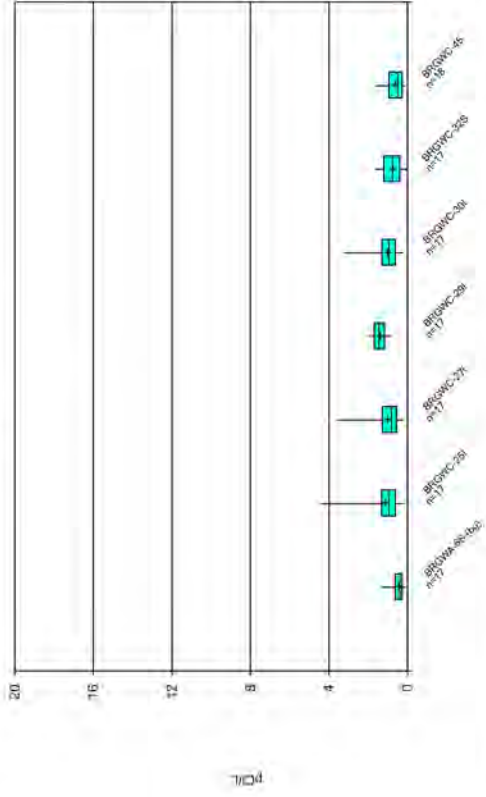


### Box & Whiskers Plot



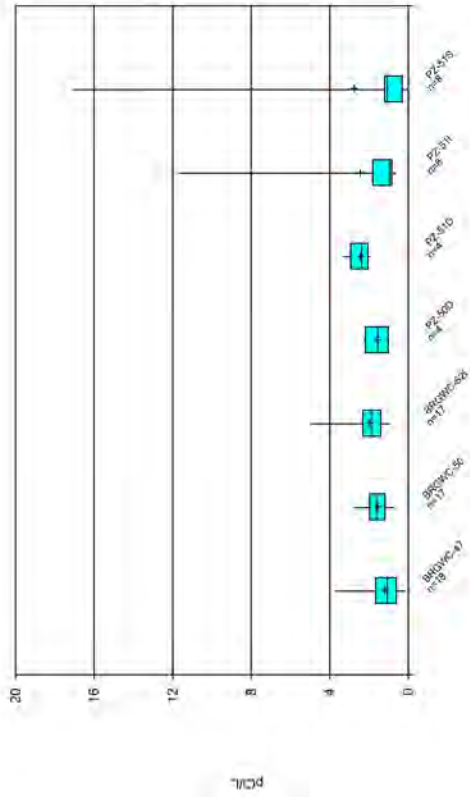
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



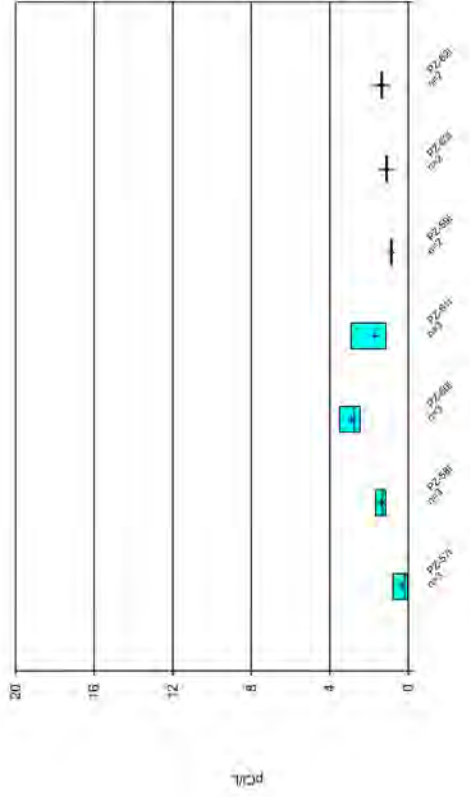
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

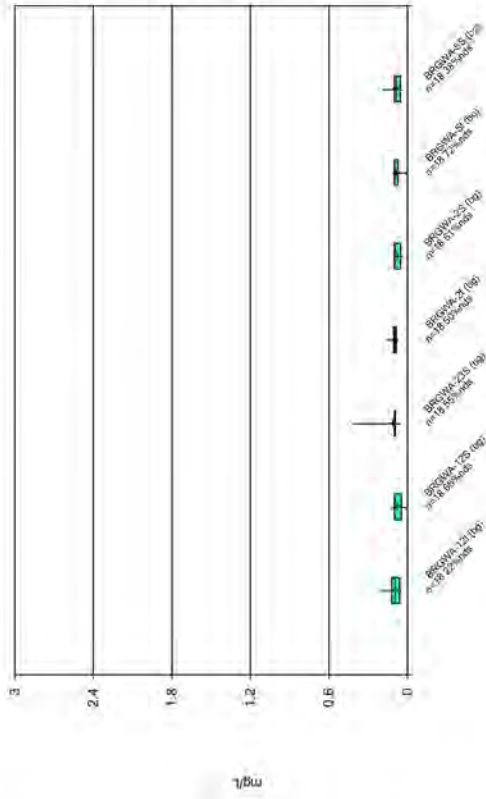
### Box & Whiskers Plot



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Plant Branch Client: Southern Company Data: Plant Branch AP

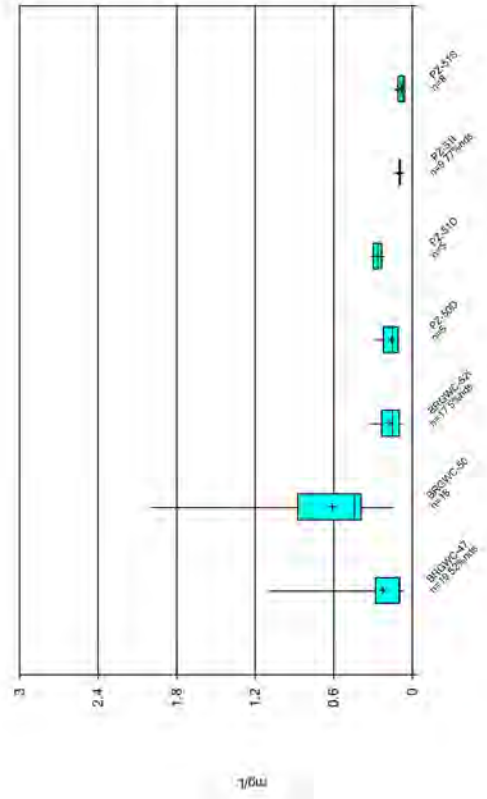


### Box & Whiskers Plot



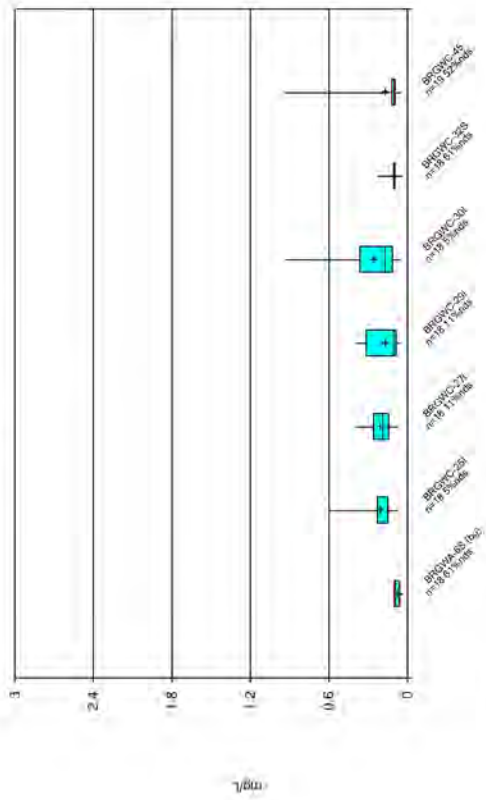
Constituent: Fluoride Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



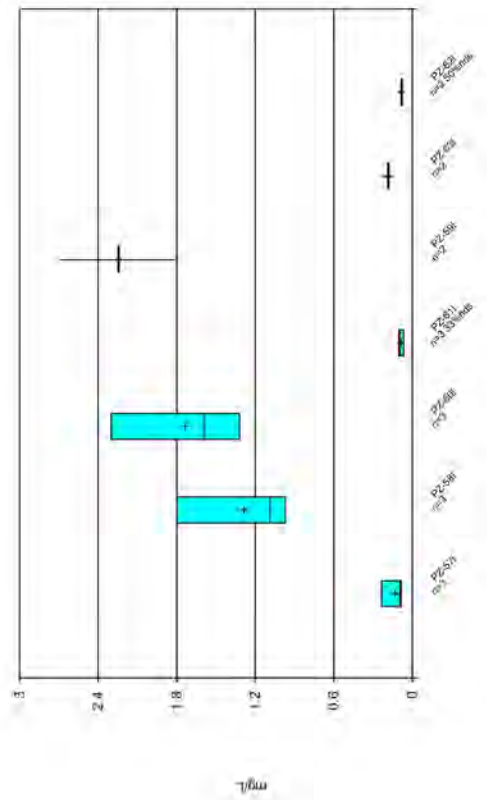
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



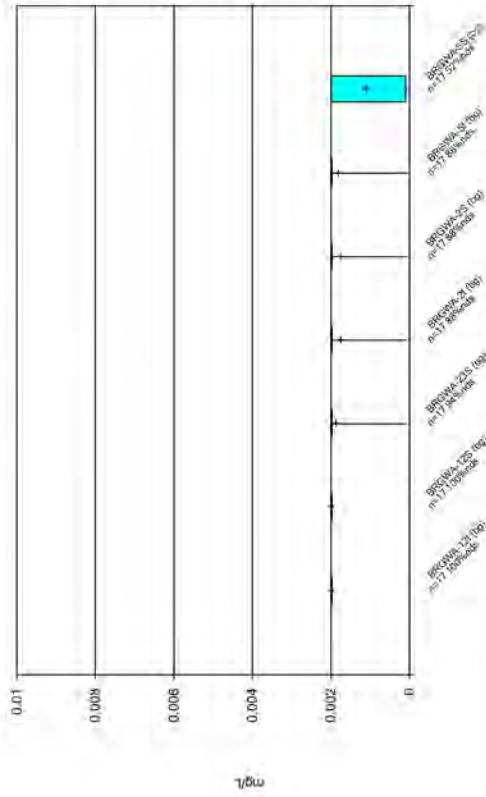
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



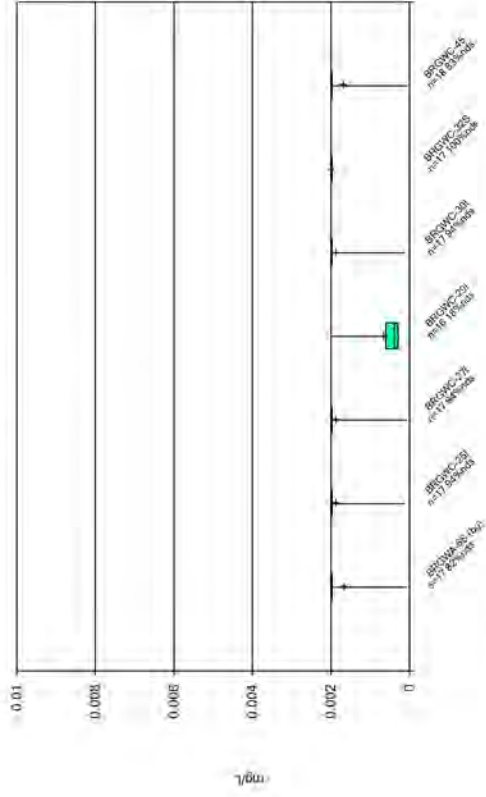
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



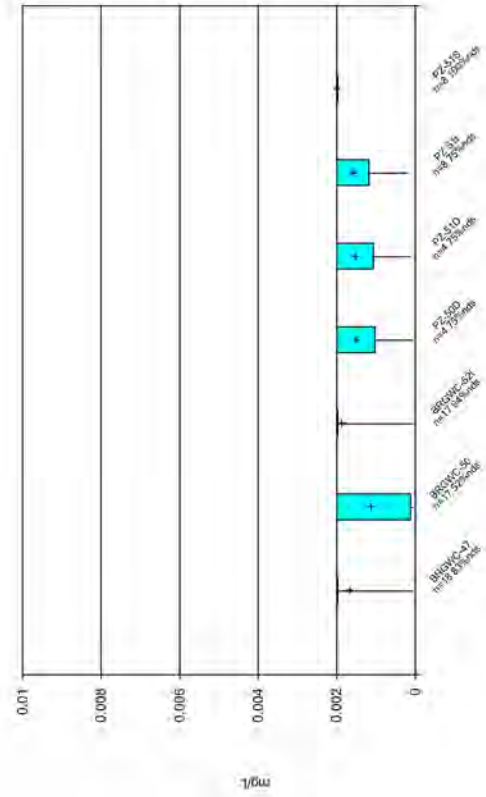
Constituent: Lead Analysis Run 11/4/2022 3:46 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



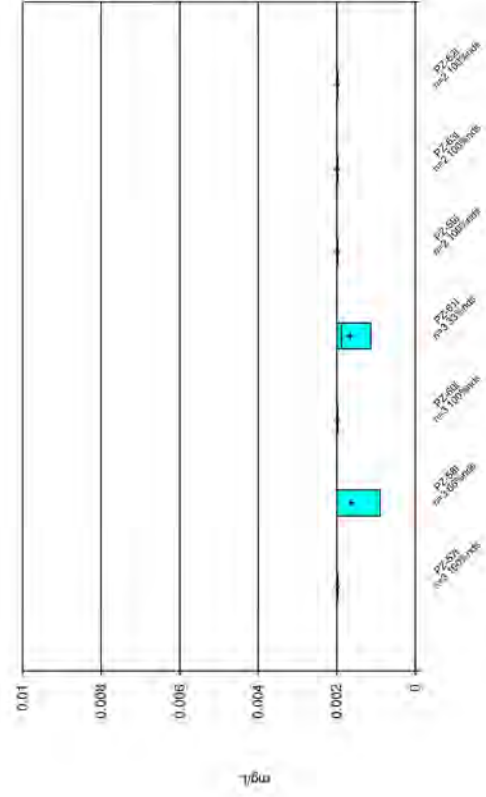
Constituent: Lead Analysis Run 11/4/2022 3:46 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



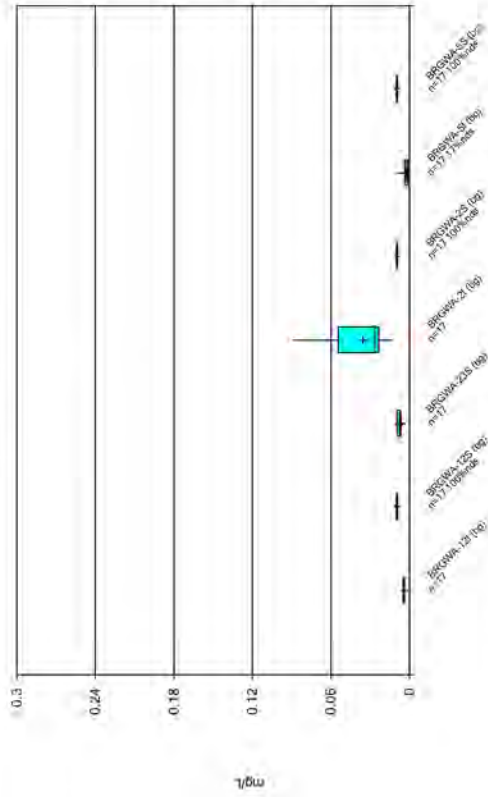
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### Box & Whiskers Plot



Constituent: Lead Analysis Run 11/4/2022 3:46 PM View: Pond BCD Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



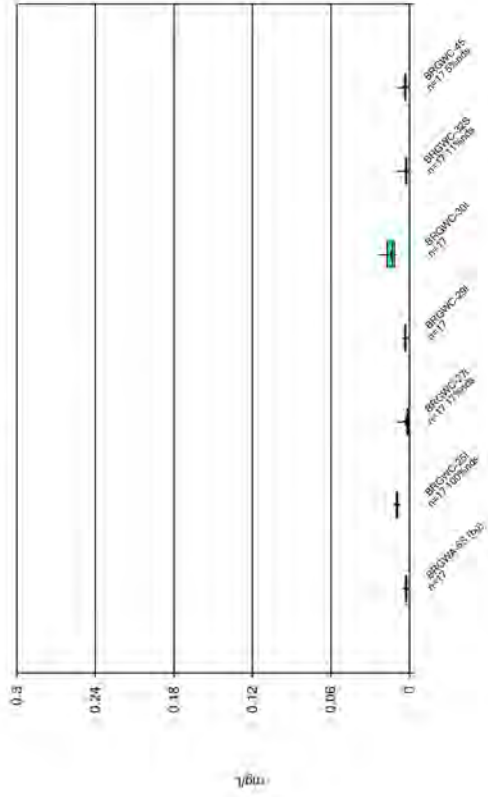
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



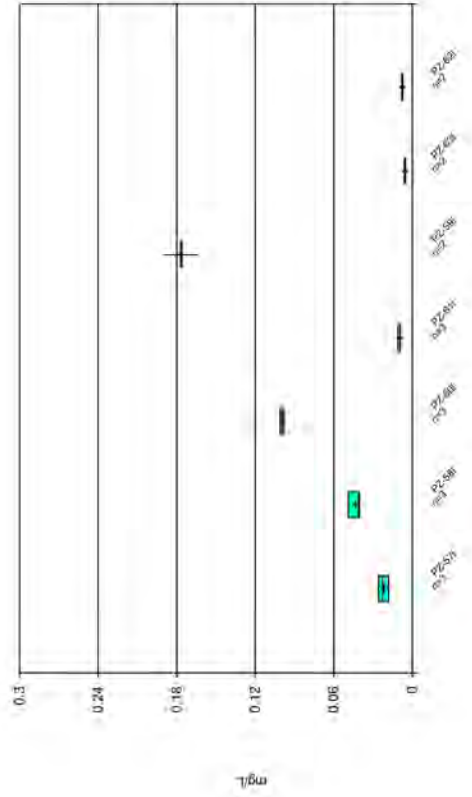
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Lithium Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

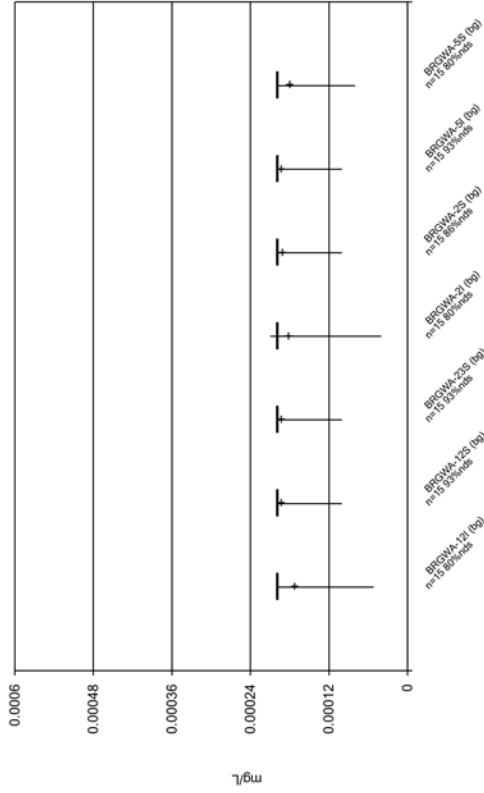
### Box & Whiskers Plot



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Plant Branch Client: Southern Company Data: Plant Branch AP

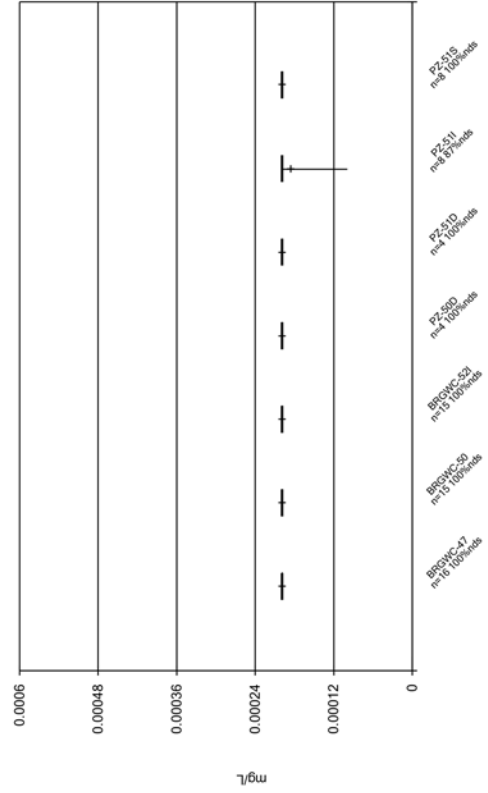


### Box & Whiskers Plot



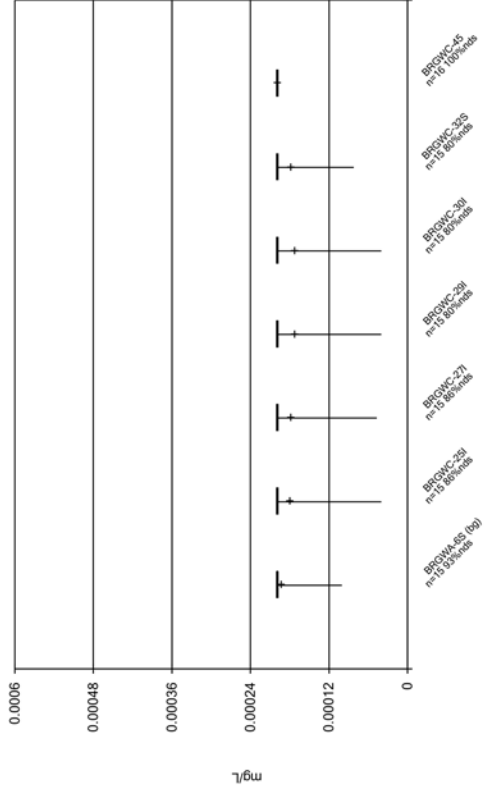
Constituent: Mercury Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



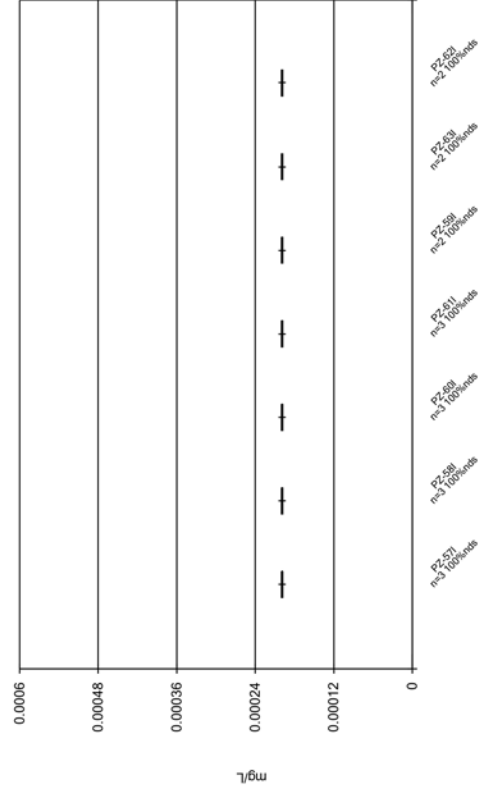
Constituent: Mercury Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



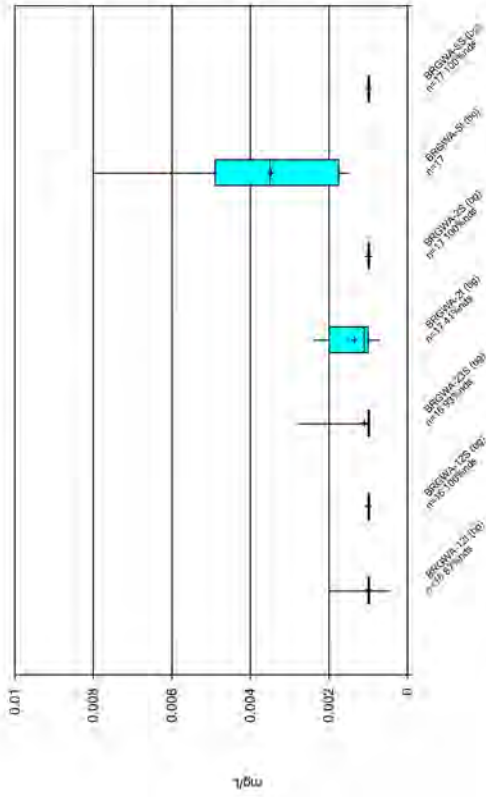
Constituent: Mercury Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



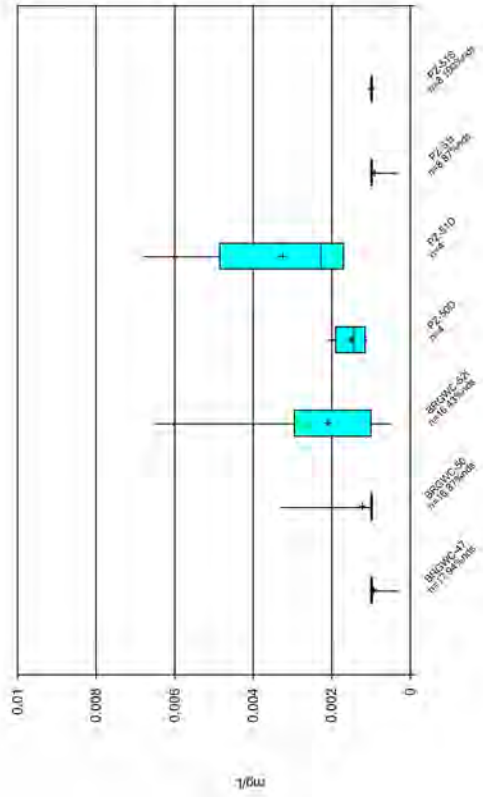
Constituent: Mercury Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



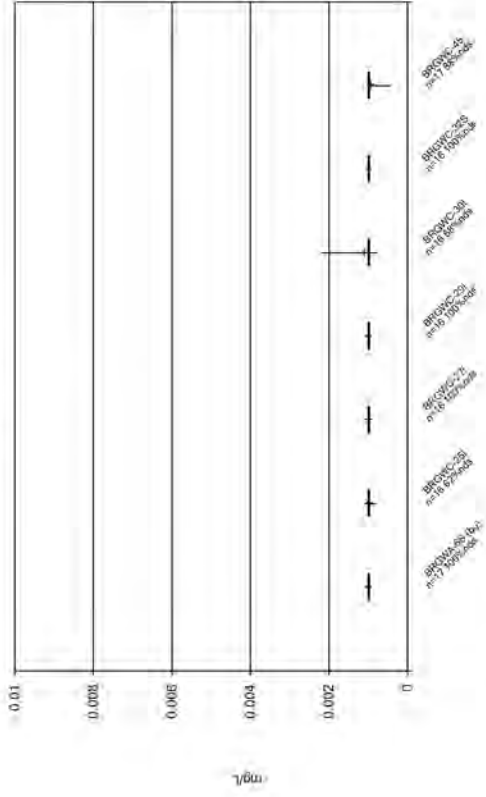
Constituent: Molybdenum Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



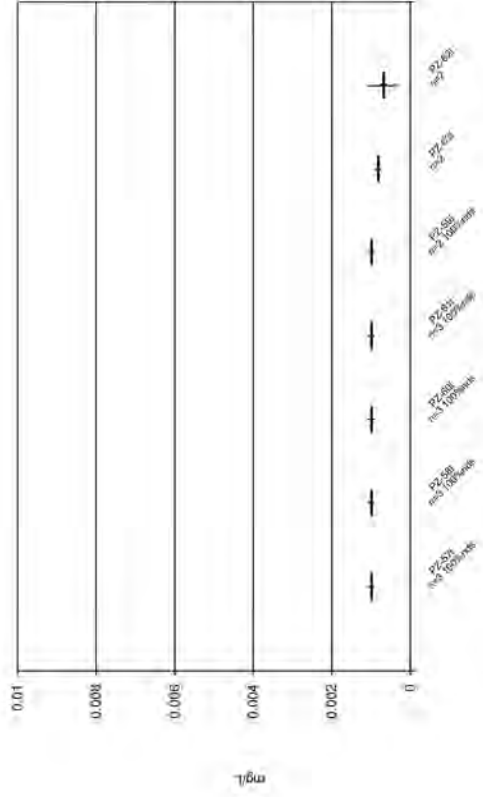
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



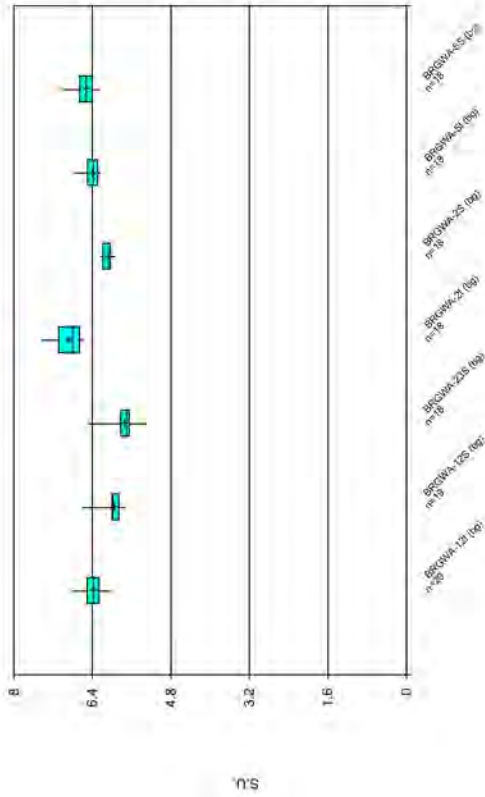
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



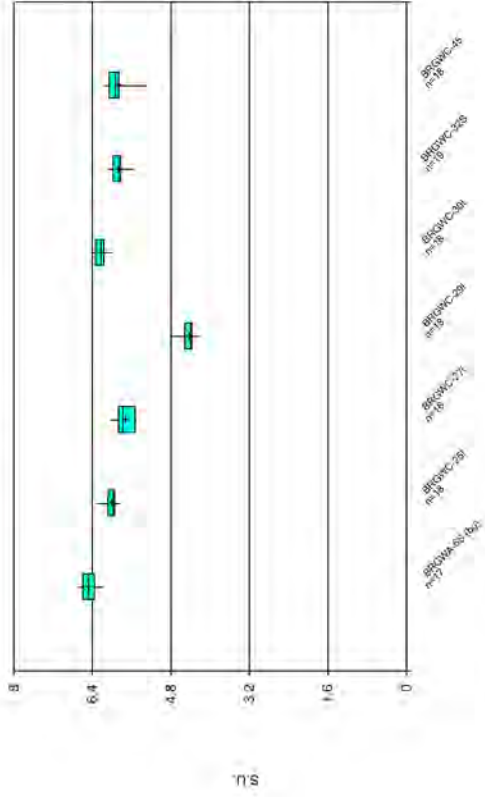
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



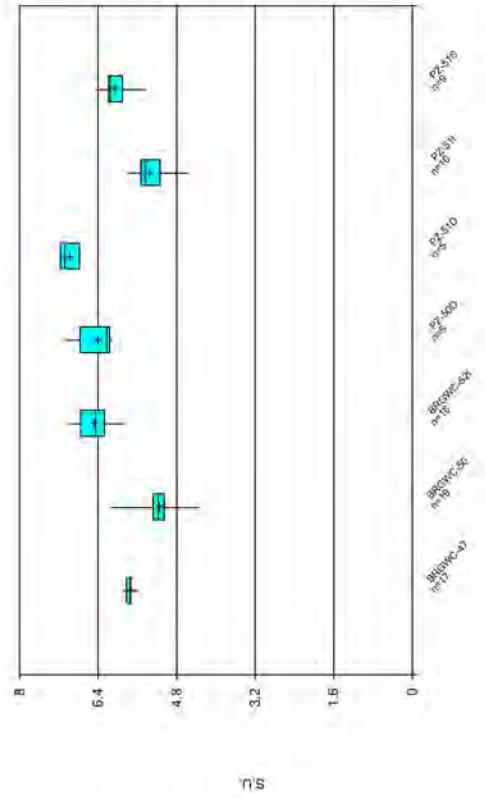
Constituent: pH, Field Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



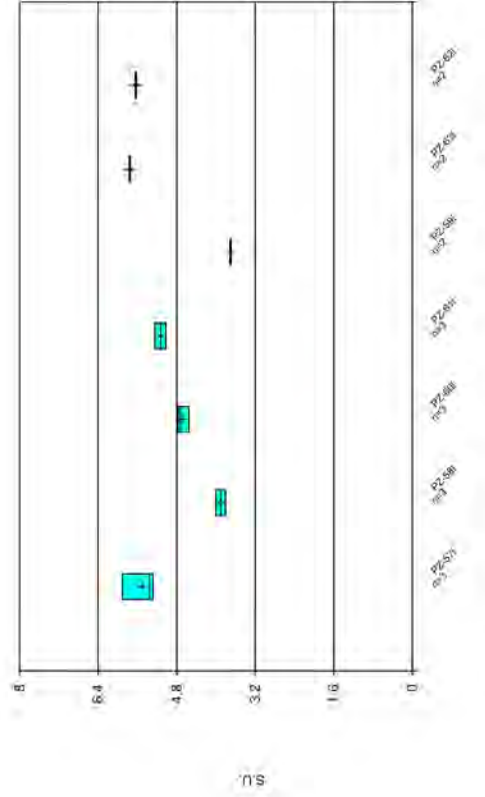
Constituent: pH, Field Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: pH, Field Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

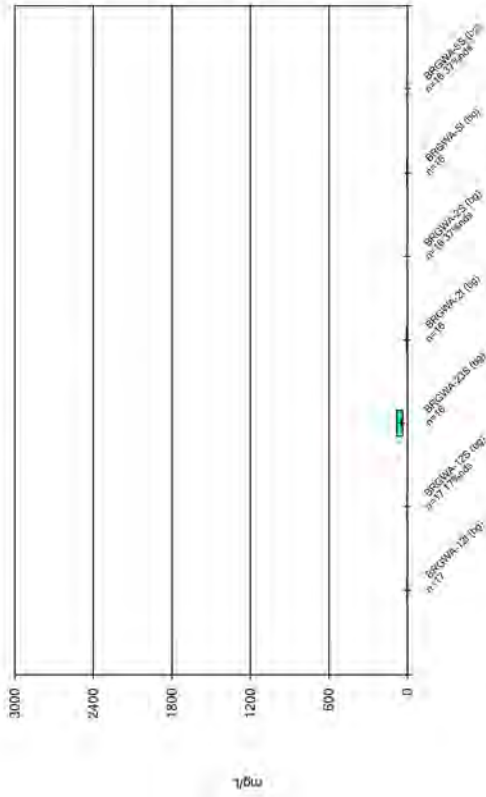
### Box & Whiskers Plot



Constituent: pH, Field Analysis Run 11/4/2022 3:46 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

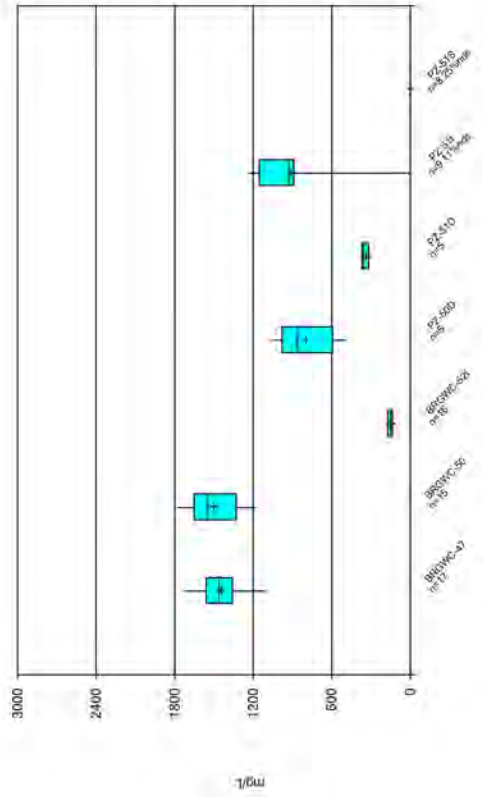


### Box & Whiskers Plot



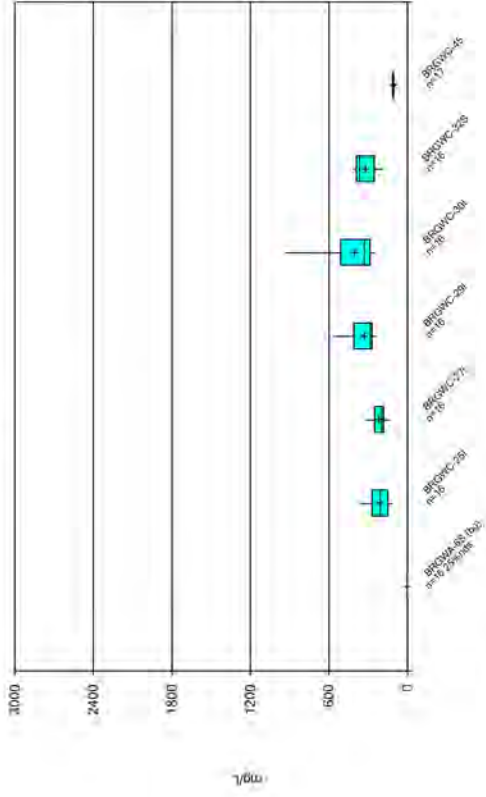
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



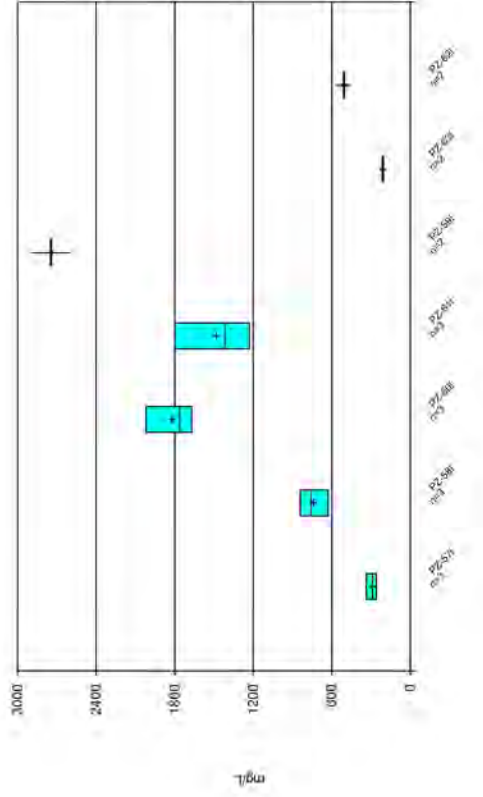
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



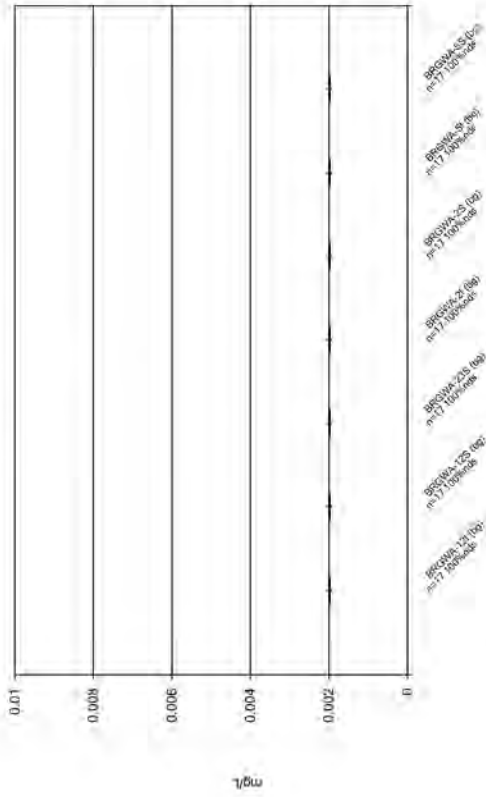
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



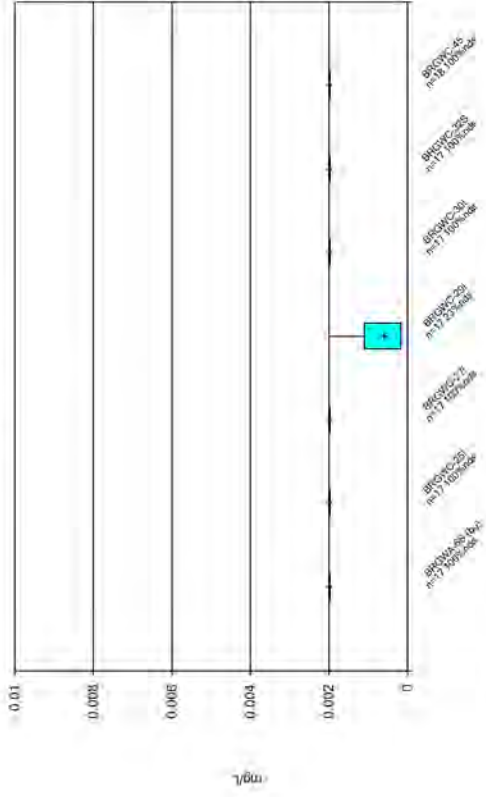
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



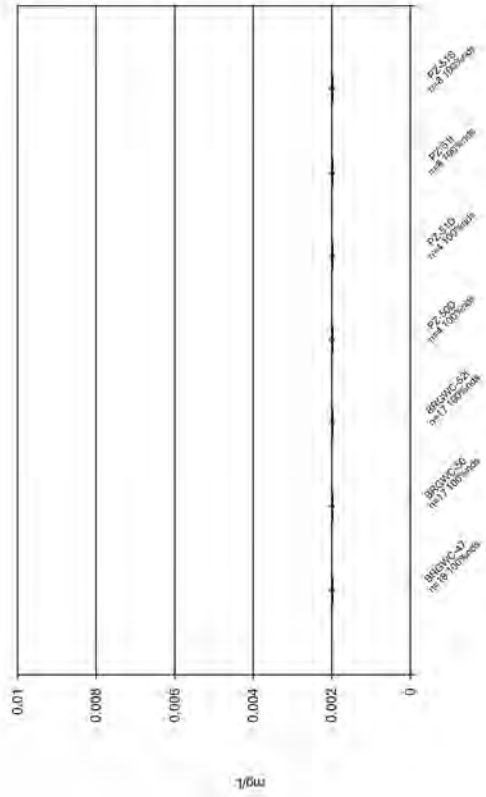
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### Box & Whiskers Plot



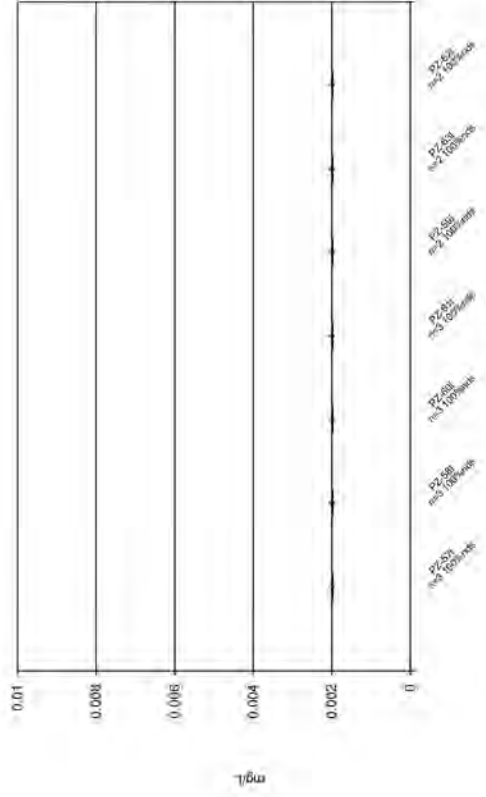
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/4/2022 3:47 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

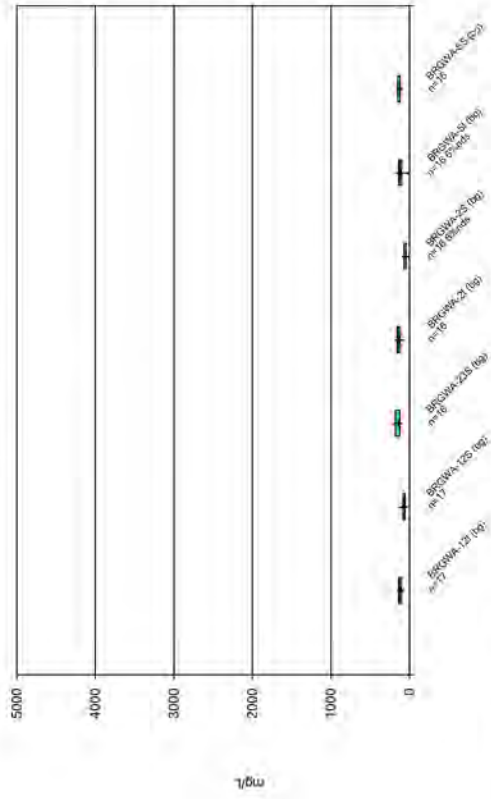
### Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/4/2022 3:47 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

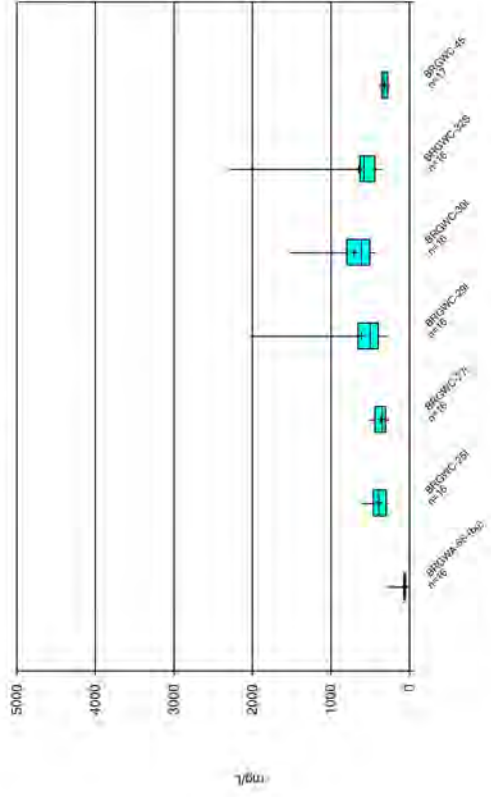


### Box & Whiskers Plot



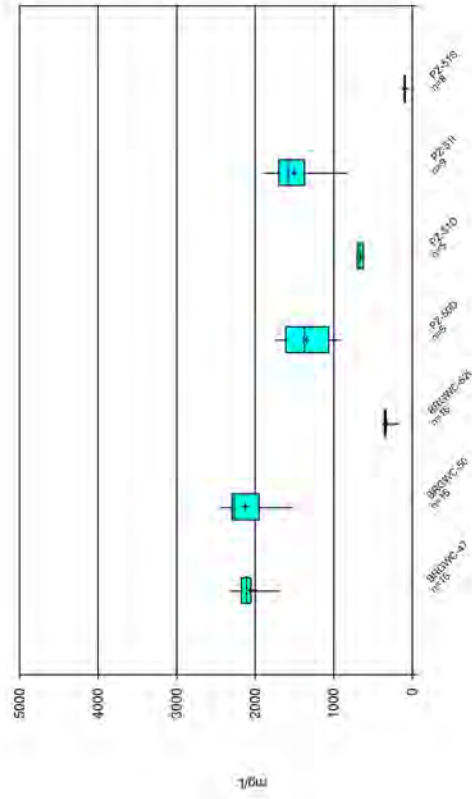
Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:47 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



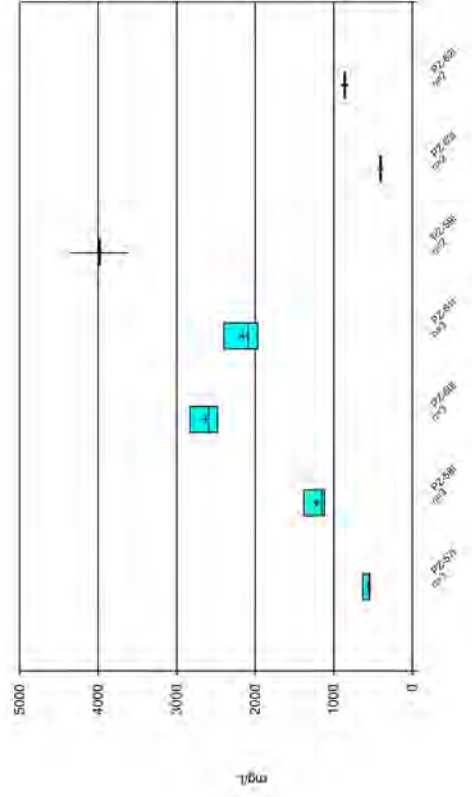
Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:47 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:47 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/4/2022 3:47 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE C.



# Outlier Summary

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 3:50 PM

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	BRGWC-521 Calcium (mg/L)	BRGWA-51 Cobalt (mg/L)	BRGWC-521 Fluoride (mg/L)	BRGWC-291 Lead (mg/L)	BRGWC-45 Lithium (mg/L)	BRGWC-50 Sulfate (mg/L)	BRGWC-47 Total Dissolved Solids (mg/L)
11/16/2016	<0.01 (o)						
2/13/2018	<0.01 (o)						
2/14/2018			<0.005 (o)				
6/27/2018					31 (OX)		
7/31/2018				<0.25 (o)			
8/10/2018	410 (O)	1.6 (O)					
1/16/2019					589 (O)		

FIGURE D.

# Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:39 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)	BRGWC-25I	0.068	n/a	8/23/2022	1.38	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	8/25/2022	1.03	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	8/24/2022	1.13	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	8/24/2022	2.15	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	8/25/2022	1.07	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	8/23/2022	0.547	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	8/24/2022	0.406	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	8/25/2022	1.56	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	8/23/2022	51.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	8/25/2022	64	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	8/24/2022	61	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	8/24/2022	316	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	8/25/2022	48.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	8/25/2022	33.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	8/23/2022	323	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	8/24/2022	215	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	8/25/2022	38.3	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	8/24/2022	5.84	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	8/25/2022	14.9	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	8/24/2022	15.8	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	8/25/2022	6.27	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	8/24/2022	0.497	Yes	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.04	5.588	8/24/2022	4.39	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.04	5.588	8/24/2022	5.01	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	8/23/2022	158	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	8/25/2022	176	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	8/24/2022	298	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	8/24/2022	935	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	8/25/2022	254	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	8/25/2022	114	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	8/23/2022	1410	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	8/24/2022	1400	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	8/25/2022	142	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	299	n/a	8/23/2022	315	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	299	n/a	8/25/2022	311	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	8/24/2022	383	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	8/24/2022	1540	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	8/25/2022	437	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	8/23/2022	2060	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	8/24/2022	1990	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:39 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)	BRGWC-25I	0.068	n/a	8/23/2022	1.38	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	8/25/2022	1.03	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	8/24/2022	1.13	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	8/24/2022	2.15	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	8/25/2022	1.07	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-45	0.068	n/a	8/25/2022	0.0458	No	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	8/23/2022	0.547	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	8/24/2022	0.406	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	8/25/2022	1.56	Yes	128	n/a	n/a	53.91	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	8/23/2022	51.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	8/25/2022	64	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	8/24/2022	61	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	8/24/2022	316	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	8/25/2022	48.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	8/25/2022	33.5	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	8/23/2022	323	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	8/24/2022	215	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	8/25/2022	38.3	Yes	130	n/a	n/a	4.615	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	8/23/2022	5.38	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-27I	5.8	n/a	8/25/2022	4.65	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	8/24/2022	5.84	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-30I	5.8	n/a	8/24/2022	4.91	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-32S	5.8	n/a	8/25/2022	3.96	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	8/25/2022	14.9	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-47	5.8	n/a	8/23/2022	4.49	No	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	8/24/2022	15.8	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	8/25/2022	6.27	Yes	130	n/a	n/a	0	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-25I	0.42	n/a	8/23/2022	0.186	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-27I	0.42	n/a	8/25/2022	0.234	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-29I	0.42	n/a	8/24/2022	0.103	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-30I	0.42	n/a	8/24/2022	0.318	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-32S	0.42	n/a	8/25/2022	0.138	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-45	0.42	n/a	8/25/2022	0.166	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-47	0.42	n/a	8/23/2022	0.1ND	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	8/24/2022	0.497	Yes	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-52I	0.42	n/a	8/25/2022	0.157	No	144	n/a	n/a	53.47	n/a	n/a	0.00009487	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-25I	7.04	5.588	8/23/2022	6.11	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-27I	7.04	5.588	8/25/2022	6.03	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.04	5.588	8/24/2022	4.39	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-30I	7.04	5.588	8/24/2022	6.38	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-32S	7.04	5.588	8/25/2022	6.06	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-45	7.04	5.588	8/25/2022	5.74	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-47	7.04	5.588	8/23/2022	5.61	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.04	5.588	8/24/2022	5.01	Yes	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-52I	7.04	5.588	8/25/2022	6.21	No	146	6.314	0.3783	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	8/23/2022	158	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	8/25/2022	176	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	8/24/2022	298	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	8/24/2022	935	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	8/25/2022	254	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	8/25/2022	114	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	8/23/2022	1410	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	8/24/2022	1400	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	8/25/2022	142	Yes	130	n/a	n/a	14.62	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2

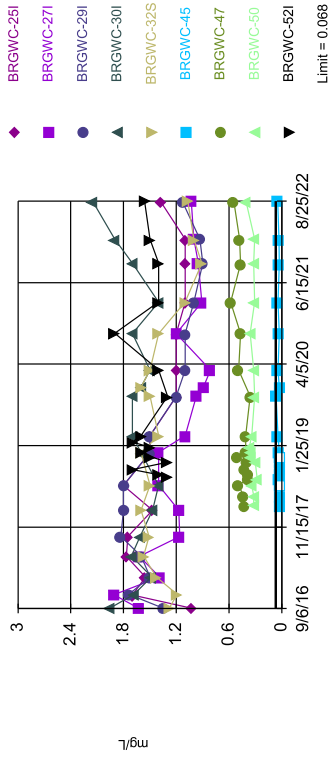
# Appendix III Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:39 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	BRGWC-25I	299	n/a	8/23/2022	315	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	299	n/a	8/25/2022	311	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	8/24/2022	383	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	8/24/2022	1540	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	8/25/2022	437	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	299	n/a	8/25/2022	248	No	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	8/23/2022	2060	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	8/24/2022	1990	Yes	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	299	n/a	8/25/2022	296	No	130	n/a	n/a	1.538	n/a	n/a	0.0001171	NP Inter (normality) 1 of 2

Exceeds Limit: BRGWC-251, BRGWC-271,  
BRGWC-291, BRGWC-301, BRGWC-32S,  
BRGWC-47, BRGWC-50, BRGWC-521

Prediction Limit  
Interwell Non-parametric

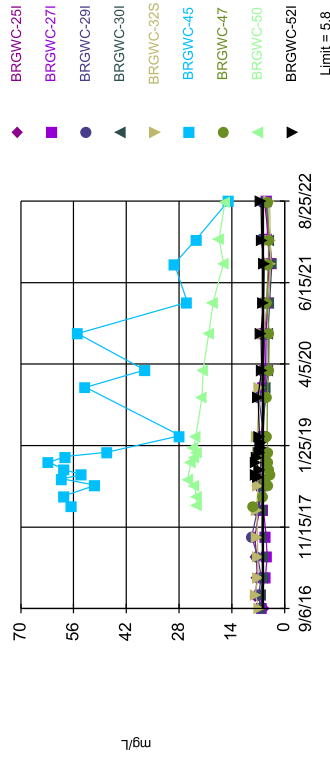


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 128 background values. 53.91% NDS. Annual per-constituent alpha = 0.002169. Individual comparison alpha = 0.0001206 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-291, BRGWC-45,  
BRGWC-50, BRGWC-521

Prediction Limit  
Interwell Non-parametric

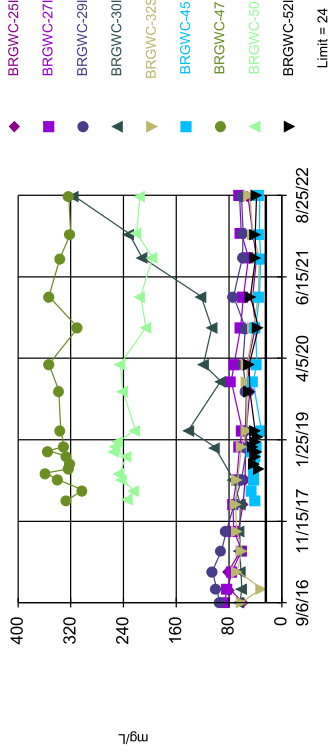


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-251, BRGWC-271,  
BRGWC-291, BRGWC-301, BRGWC-32S,  
BRGWC-45, BRGWC-47, BRGWC-50,...

Prediction Limit  
Interwell Non-parametric

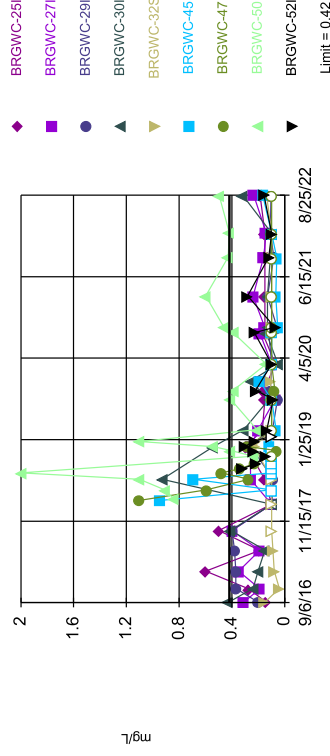


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 4.615% NDS. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-50

Prediction Limit  
Interwell Non-parametric

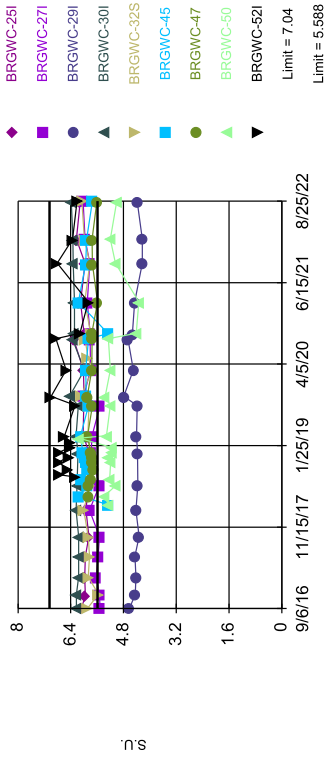


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 144 background values. 53.47% NDS. Annual per-constituent alpha = 0.001706. Individual comparison alpha = 0.00009487 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limits: BRGWC-291, BRGWC-50

Prediction Limit  
Interwell Parametric

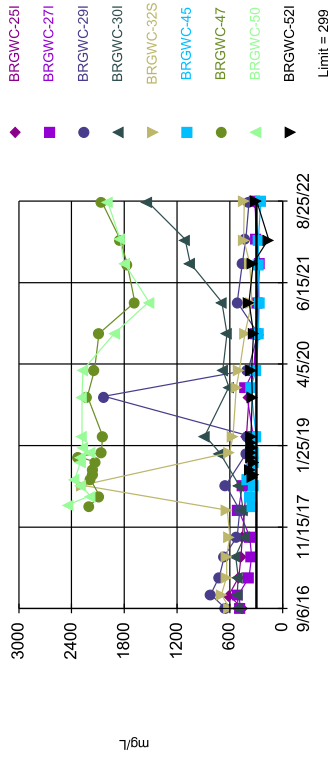


Background Data Summary: Mean=6.314, Std. Dev.=0.3783, n=146. Normality test: Chi Squared @alpha = 0.01, calculated = 5.096, critical = 14.07. Kappa = 1.92 (c=7, w=9, 1 of 2, event.alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004179. Comparing 9 points to limit.

Constituent: pH, Field Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-251, BRGWC-271, BRGWC-291, BRGWC-301, BRGWC-325, BRGWC-47, BRGWC-50

Prediction Limit  
Interwell Non-parametric

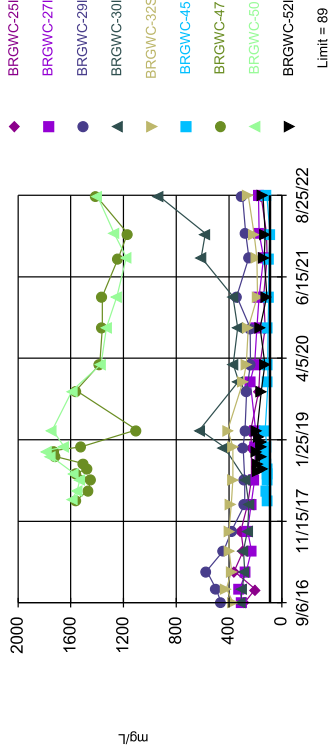


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 1.538% NDs. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-251, BRGWC-271, BRGWC-291, BRGWC-301, BRGWC-325, BRGWC-45, BRGWC-47, BRGWC-50,...

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 14.62% NDs. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Sulfate Analysis Run 9/30/2022 4:33 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-6S (bg)	BRGWA-23S (bg)	BRGWC-30I
8/31/2016	<0.015	<0.015	<0.015	0.0072 (J)					
9/1/2016					0.0093 (J)	<0.015	<0.015		
9/6/2016								0.0362 (J)	1.96
9/8/2016									
11/15/2016	0.0085 (J)						0.0123 (J)		
11/16/2016		0.0187 (J)	0.0109 (J)	0.0117 (J)	0.0127 (J)	0.0081 (J)			
11/17/2016								0.0617	
11/18/2016									
11/21/2016									1.68
2/20/2017	0.0093 (J)	0.0066 (J)					0.0157 (J)		
2/21/2017			<0.015	0.0088 (J)	0.0071 (J)	<0.015		0.0245 (J)	
2/22/2017									1.48
6/12/2017	<0.015	<0.015		0.0133 (J)			<0.015		
6/13/2017			<0.015			<0.015		<0.015	
6/14/2017					0.0078 (J)				1.71
9/26/2017	<0.015	<0.015	<0.015	0.0093 (J)	<0.015	<0.015	<0.015	<0.015	
9/27/2017									1.61
2/13/2018	<0.015	<0.015	<0.015	0.0141 (J)			<0.015		
2/14/2018					0.0068 (J)	<0.015		0.0314 (J)	1.47
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	0.0056 (J)	0.0042 (J)	<0.015	0.012 (J)	0.008 (J)	<0.015	0.0041 (J)	0.062	
6/27/2018									
6/28/2018									1.4
7/31/2018									
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	0.0062 (J)	<0.015	<0.015	0.0086 (J)	0.0083 (J)	0.0053 (J)	<0.015	0.055	1.6
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	<0.015	<0.015	<0.015	0.00565 (JD)	0.008 (J)	<0.015	<0.015	0.068	
3/20/2019									1.7
10/15/2019	0.006 (J)	<0.015	<0.015	0.0067 (J)	0.006 (J)	<0.015	0.01 (J)	0.022 (J)	
10/16/2019									
10/17/2019									1.7
12/3/2019									
12/4/2019									1.6
3/3/2020	<0.015	<0.015	<0.015	0.0082 (J)	0.01 (J)	0.0065 (J)	<0.015		
3/4/2020								0.044 (J)	
3/5/2020									1.5
9/15/2020	<0.015	<0.015	<0.015	<0.015	0.0071 (J)	<0.015	<0.015	0.033 (J)	
9/16/2020									1.7
9/17/2020									
3/1/2021				<0.015			<0.015		







# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/2/2021				1.1	0.044	0.58		
3/3/2021	0.91	1						
3/4/2021			1.1				0.31	1.4
9/21/2021								
9/22/2021								
9/23/2021					0.029 (J)	0.47		
9/27/2021							0.32	
9/28/2021	0.95	0.9	0.91	1.1				1.4
2/1/2022								
2/2/2022			1	1.1	0.034 (J)	0.48		1.5
2/3/2022		0.93					0.31	
2/4/2022	1							
8/23/2022				1.38		0.547		
8/24/2022		1.13					0.406	
8/25/2022	1.03		1.07		0.0458			1.56

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-23S (bg)	BRGWC-30I
8/31/2016	12.6	4.09	13.5	19.6					
9/1/2016					4.61	8.98	3.3		
9/6/2016								12.8	63.3
9/8/2016									
11/15/2016				21.7			3.44		
11/16/2016	12.1	4.25	14.9		4.17	15.4			
11/17/2016								19.2	
11/18/2016									
11/21/2016									60.7
2/20/2017			13.9	21.1			3.52		
2/21/2017	11.4	4.02			5	17.4		15.1	
2/22/2017									62.1
6/12/2017	9.34		13.7	21.5			3.11		
6/13/2017		3.84			4.98			10.2	
6/14/2017						18.1			63.5
9/26/2017	14.3	3.31	14.4	24	4.49	19.3	3.15	15	
9/27/2017									63.5
2/13/2018	<25	3.94	<25	<25			3.65		
2/14/2018					<25	<25		<25	62.8
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	16 (J)	3.6	13.5 (J)	23.5 (J)	6.4	15.5 (J)	3.3	18.5 (J)	
6/27/2018									
6/28/2018									73.3
7/31/2018					6.1	18.2 (J)			
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	14.5 (J)	3.8	16.4 (J)	19.8 (J)	5.5	18.7 (J)	3.5	16.8 (J)	102
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	14.3 (JD)	3.9	12.3 (J)	21.4 (J)	5.9	15.9 (J)	3.6	13.5 (J)	
3/20/2019									141
10/15/2019	15.1	3.7	14.4	20	6.2	15.9	3.5	8.6	
10/16/2019									
12/3/2019									
12/4/2019									92.6
3/3/2020	20	4	14.9	23.2	6.8	19.4	5		
3/4/2020								11.5	
3/5/2020									119
9/15/2020	14.1	3.9	12.7	16.8	5.7	14.5	3.7	10.7	
9/16/2020									106
9/17/2020									
3/1/2021	15.4						4.2		
3/2/2021		4	13.2	16.8	5.4	11.7		11.6	



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	59.4	87.2	60.5	93.9				
11/15/2016								
11/16/2016								
11/17/2016	78.4							
11/18/2016		82.4						
11/21/2016			31.1	99.1				
2/20/2017								
2/21/2017	80.9	75.1						
2/22/2017			67.3	105				
6/12/2017								
6/13/2017	62	61						
6/14/2017			60.2	91.3				
9/26/2017								
9/27/2017	65.8	72.6	68.4	84				
2/13/2018								
2/14/2018	58.8	74.1	70.2	72.1				
3/6/2018					326	39.5		
3/15/2018							233	
5/1/2018					302 (D)	45.5	225	
6/26/2018	55.5							
6/27/2018		68.2	67.1	61.1	340			
6/28/2018						41.9	242	
7/31/2018						41.5		
8/1/2018					358		246	
8/10/2018								410 (O)
8/23/2018					323	42.3		33.9
9/19/2018					321	41.9		42.3
10/29/2018					326	40.8	236	39.8
11/28/2018					354	45.1	254	38.2
12/18/2018	54.7			52.9				
12/19/2018			61.2		330		252	
12/20/2018		63.9				39		43.2
1/16/2019							248	
1/17/2019								39.4
2/13/2019								36.9
3/19/2019		60.2			335			
3/20/2019	53.95 (D)		52.8	55.4		31.2	222	40.85 (D)
10/15/2019	48.3							
10/16/2019				54	338		241	48.4
12/3/2019						43.7		
12/4/2019		76.8	52.7					
3/3/2020								
3/4/2020	52	72.3		59.3	353		245	49.5
3/5/2020			52.1			37.9		
9/15/2020	40.1			55.1				
9/16/2020		62.5	43.1		309	39.7		
9/17/2020							206	35.4
3/1/2021								
3/2/2021	44.1				353	33.9		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-25I	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
3/3/2021		58.2		73.3				
3/4/2021			35.7				214	47.5
9/21/2021								
9/22/2021								
9/23/2021					336	32		
9/27/2021							196	
9/28/2021	38.4	50.4	33.9	59.5				39.5
2/1/2022								
2/2/2022	44.3		44.2		320	33.8		40.1
2/3/2022				58.7			220	
2/4/2022		61.7						
8/23/2022	51.5				323			
8/24/2022				61			215	
8/25/2022		64	48.5			33.5		38.3

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	3.6	4.4	2	2.3					
9/1/2016					3.3	2.5	3.5		
9/6/2016								6.7	5.8
9/8/2016									
11/15/2016	4					2.3			
11/16/2016		4.4	1.8	2	3.6		3.6		
11/17/2016									4.3
11/18/2016									
11/21/2016								6.5	
2/20/2017	3.9	4.8				2.4			
2/21/2017			1.8	2	3.2		3.2		3.5
2/22/2017								5.6	
6/12/2017	3.8	4.2		2.1		2.2			
6/13/2017			1.7				3.3		3.2
6/14/2017					3.1			5.7	
9/26/2017	4.1	4.4	1.8	2	3.3	2.3	3.3		3.5
9/27/2017								6	
2/13/2018	4.1	4.7	1.7	2.1		2.3			
2/14/2018					3.1		3.5	5.9	3.8
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	4.1	4.5	2.2	2.4	3.4	2.6	3.4		3.8
6/27/2018									
6/28/2018								7 (J-X)	
7/31/2018					2.6		2.9		
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	3.8	4.5	1.9	1.8	2.8	2.3	2.9	5.8	3.9
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	4.2	4.5	2	2.45 (D)	3.2	2.6	3.5		3.8
3/20/2019								5.8	
10/15/2019	3.7	4.2	1.9	2.2	3.1	2.4	3.4		3.5
10/16/2019									
12/3/2019									
12/4/2019								5	
3/3/2020	3.6	3.9	1.9	1.9	2.6	2.9	3.2		
3/4/2020									3.3
3/5/2020								4.3	
9/15/2020	3.7	3.7	1.7	1.9	2.4	2.3	3.5		3.1
9/16/2020								4.4	
9/17/2020									
3/1/2021				1.8		2.1			
3/2/2021	3.7	3.8	1.7		2.6		3.7		3.5





# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	6	6.4	6.8	5.5				
11/15/2016								
11/16/2016								
11/17/2016				7.7				
11/18/2016	6.3							
11/21/2016		6.9	7.8					
2/20/2017								
2/21/2017	5.1			7.3				
2/22/2017		6.2	7					
6/12/2017								
6/13/2017	4.7			7.5				
6/14/2017		7.2	7.1					
9/26/2017								
9/27/2017	4.9	8.7	7.2	7.9				
2/13/2018								
2/14/2018	5.6	7.2	7.4	6.7				
3/6/2018					56.6	8.4		
3/15/2018							23.3	
5/1/2018					58.5	5.7 (JXD)	23.4	
6/26/2018				6.7				
6/27/2018	5.9	6.3	7.1			4.4		
6/28/2018					50.2 (J-X)		24 (J-X)	
7/31/2018					59			
8/1/2018						5.2	25.7	
8/10/2018								6.9
8/23/2018					54	3.6		7.5
9/19/2018					58.4	4.1		6.6
10/29/2018					62.6	4.3	24.9	7.8
11/28/2018					58.1	5.1	24	7.2
12/18/2018		5.4		6.2				
12/19/2018			7 (J-X)			4.5 (J-X)	23.3 (J-X)	
12/20/2018	5.6 (J-X)				47.2 (J-X)			6.6 (J-X)
1/16/2019							24.1	
1/17/2019								6.4
2/13/2019								6.5
3/19/2019	5.8					4.7		
3/20/2019		5.6	7.3	6.3 (D)	27.7		23.5	6.7 (D)
10/15/2019				5				
10/16/2019		6.9				4.6	21.9	7
12/3/2019					52.8			
12/4/2019	5.6		6.6					
3/3/2020								
3/4/2020	5.1	5.8		5		4.2	21.6	6.1
3/5/2020			6		37.1			
9/15/2020		5.5		4.9				
9/16/2020	5.4		5.6		54.9	4.1		
9/17/2020							20.1	6.3
3/1/2021								
3/2/2021				4.5	25.8	4.8		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/3/2021	4.5	5.6						
3/4/2021			4.6				18.9	5.6
9/21/2021								
9/22/2021								
9/23/2021					29.3	4.3		
9/27/2021							16.2	
9/28/2021	3.7	5.4	3.6	4.2				5.5
2/1/2022								
2/2/2022			3.8	4.2	23.4	4.2		6.1
2/3/2022		6.1					17.4	
2/4/2022	4.6							
8/23/2022				5.38		4.49		
8/24/2022		5.84					15.8	
8/25/2022	4.65		3.96		14.9			6.27





# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-29I	BRGWC-32S	BRGWC-27I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	0.14 (J)	0.2 (J)	0.15 (J)	0.31				
11/15/2016								
11/16/2016								
11/17/2016	0.27 (J)							
11/18/2016				0.19 (J)				
11/21/2016		0.37	0.04 (J)					
2/20/2017								
2/21/2017	0.6			0.35				
2/22/2017		0.37	0.08 (J)					
6/12/2017								
6/13/2017	0.19 (J)			0.19 (J)				
6/14/2017		0.38	0.09 (J)					
9/26/2017								
9/27/2017	0.5	0.4	<0.1	0.4				
2/13/2018								
2/14/2018	<0.1	<0.1	<0.1	<0.1				
3/6/2018					0.94	1.1		
3/15/2018							0.84 (JX)	
5/1/2018					<0.1	0.595 (D)	0.91	
6/26/2018	0.15 (J)							
6/27/2018		0.085 (J)	<0.1	0.26 (J)		0.27 (J)		
6/28/2018					0.69 (J+X)		1.1 (J+X)	
7/31/2018					<0.1			
8/1/2018						0.48	2	
8/10/2018								1.6 (O)
8/23/2018					<0.1	0.34		0.32
9/19/2018					<0.1	0.23 (J)		0.22 (J)
10/29/2018					<0.1	<0.1	0.24 (J)	0.14 (J)
11/28/2018					<0.1	0.063 (J)	0.41	0.24 (J)
12/18/2018	0.29 (J)	0.26 (J)						
12/19/2018			0.23 (J)			0.28 (J)	0.54	
12/20/2018				0.26 (J)	0.12 (J)			0.3
1/16/2019							1.1	
1/17/2019								0.23 (J)
2/13/2019								<0.1
3/19/2019				0.2 (J)		<0.1		
3/20/2019	0.17 (JD)	0.091 (J)	<0.1		0.066 (J)		0.21 (J)	0.135 (JD)
8/27/2019	0.15 (J)		<0.1					
8/28/2019		0.055 (J)		0.074 (J)	<0.1	<0.1		
8/29/2019							0.41	0.087 (J)
10/15/2019	0.16 (J)							
10/16/2019		0.11 (J)				0.076 (J)	0.39	0.22 (J)
12/3/2019					0.19 (J)			
12/4/2019			0.11 (J)	0.18 (J)				
3/3/2020								
3/4/2020	0.07 (J)	<0.1		<0.1		<0.1	0.14 (J)	0.1 (J)
3/5/2020			<0.1		<0.1			
8/18/2020								
8/19/2020	0.17	0.12	<0.1	0.19				

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-29I	BRGWC-32S	BRGWC-27I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/20/2020					<0.1	<0.1	0.39	0.23
9/15/2020	0.15	0.057 (J)						
9/16/2020			<0.1	0.15	0.052 (J)	<0.1		
9/17/2020							0.46	0.074 (J)
3/1/2021								
3/2/2021	0.15				0.067 (J)	<0.1		
3/3/2021		0.13		0.24				
3/4/2021			<0.1				0.6	0.28
9/21/2021								
9/22/2021								
9/23/2021					0.06 (J)	<0.1		
9/27/2021							0.43	
9/28/2021	0.15	0.081 (J)	<0.1	0.16				0.12
2/1/2022								
2/2/2022	0.15		<0.1		<0.1	<0.1		0.098 (J)
2/3/2022		0.11					0.42	
2/4/2022				0.14				
8/23/2022	0.186					<0.1		
8/24/2022		0.103					0.497	
8/25/2022			0.138	0.234	0.166			0.157







# Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-27I	BRGWC-32S	BRGWC-25I	BRGWC-50	BRGWC-45	BRGWC-47	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	4.62	5.51	5.89	6.07				
11/15/2016								
11/16/2016				5.96				
11/17/2016								
11/18/2016		5.53						
11/21/2016	4.44		5.56					
2/20/2017								
2/21/2017		5.63		5.98				
2/22/2017	4.42		5.87					
6/12/2017								
6/13/2017		5.57		5.96				
6/14/2017	4.45		5.83					
9/26/2017								
9/27/2017	4.33	5.53	5.87	5.85				
2/13/2018								
2/14/2018	4.42	5.83	6.01	5.94				
3/15/2018					5.26	5.26		
5/1/2018					5.38	6.14	5.85	
6/26/2018				5.87				
6/27/2018	4.37	5.53	5.83				5.87	
6/28/2018					5.03	5.88		
7/31/2018						6.07		
8/1/2018					5.22		5.79	
8/10/2018								6.28
8/23/2018								6.75
9/19/2018						5.9	5.71	6.48
10/29/2018					5.19	5.93	5.76	6.77
11/28/2018					5.28	5.99	5.74	6.44
12/18/2018	4.38			5.84				
12/19/2018			5.79		5.15		5.8	
12/20/2018		5.78				6.04		6.75
1/16/2019					5.14			
1/17/2019								6.41
2/13/2019								6.42
3/6/2019					6.15			
3/19/2019		5.75					5.89	
3/20/2019	4.4		5.88	6.03	5.32	6.1		6.59
8/27/2019			5.85	6.01				
8/28/2019	4.39	5.51				5.86	5.74	
8/29/2019					5.2			6.27
10/15/2019				6				
10/16/2019	4.79				5.36		5.9	7
10/17/2019		6.01 (D)	6.09			5.93		
3/3/2020								
3/4/2020	4.5	5.8		6.02	5.2		5.76	6.54
3/5/2020			5.74			5.95		
5/12/2020			5.88					
8/18/2020								
8/19/2020	4.67	5.81	5.97	6.32				

# Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-27I	BRGWC-32S	BRGWC-25I	BRGWC-50	BRGWC-45	BRGWC-47	BRGWC-52I
8/20/2020					5.26	5.86	5.75	6.85
9/15/2020	4.53			6				
9/16/2020		5.81	5.79			5.27	5.76	
9/17/2020					4.41			6.12
3/1/2021								
3/2/2021				6.1		6.17	5.59	
3/3/2021	4.46	5.9						
3/4/2021			5.98		4.34			5.87
9/21/2021								
9/22/2021								
9/23/2021						5.95	5.74	
9/27/2021					5.05			
9/28/2021	4.23	5.82	5.82	5.97				6.81
2/1/2022								
2/2/2022			5.99	6.23		5.92	5.75	6.35
2/3/2022	4.23				5.2			
2/4/2022		5.97						
8/23/2022				6.11			5.61	
8/24/2022	4.39				5.01			
8/25/2022		6.03	6.06			5.74		6.21

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	0.81 (J)	2.7	0.38 (J)	7.5					
9/1/2016					2.7	0.6 (J)	1.7		
9/6/2016								310	38
9/8/2016									
11/15/2016	<1 (J)					0.68 (J)			
11/16/2016		3.4	<1 (J)	6.6	3.6		1.2		
11/17/2016									84
11/18/2016									
11/21/2016								300	
2/20/2017	1 (B-01)	3.9 (B-01)				0.98 (J)			
2/21/2017			1.5	6.1	3		1.1		39
2/22/2017								280	
6/12/2017	0.94 (J)	3.7		5		0.54 (J)			
6/13/2017			0.67 (J)				1.1		35
6/14/2017					2.6			290	
9/26/2017	0.92 (J)	4.1	0.62 (J)	5.4	2.5	0.53 (J)	1.3		89
9/27/2017								260	
2/13/2018	<1	6.6	<1	4.7 (J)		<1			
2/14/2018					2.1 (J)		<1	250	82.2
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	0.91 (J)	3.5	0.69 (J)	6.2	2	0.54 (J)	0.84 (J)		84.2
6/27/2018									
6/28/2018								276	
7/31/2018					1.9		0.63 (J)		
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	0.68 (J)	4.3	0.72 (J)	5.9	2.1	0.39 (J)	0.66 (J)	440	83.4
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	0.74 (J)	3	0.78 (J)	6 (D)	2.2	0.68 (J)	0.75 (J)		65
3/20/2019								623	
10/15/2019	0.68 (J)	3.8	0.47 (J)	5.2	1.9	0.48 (J)	0.61 (J)		30
10/16/2019									
12/3/2019									
12/4/2019								327	
3/3/2020	0.71 (J)	2.8	0.93 (J)	7.1	1.8	2.5	0.51 (J)		
3/4/2020									38.6
3/5/2020								369	
9/15/2020	<1	1.7	<1	5.9	1.7	<1	<1		41.5
9/16/2020								334	
9/17/2020									
3/1/2021				4.7		0.74 (J)			
3/2/2021	<1	2.2	<1		1.7		0.51 (J)		54



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	300	460	370	280				
11/15/2016								
11/16/2016								
11/17/2016				200				
11/18/2016	320							
11/21/2016		500	420					
2/20/2017								
2/21/2017	270			360				
2/22/2017		570	380					
6/12/2017								
6/13/2017	230			290				
6/14/2017		440	400					
9/26/2017								
9/27/2017	260	380	400	310				
2/13/2018								
2/14/2018	232	280	383	260				
3/6/2018					111	1560		
3/15/2018							1590	
5/1/2018					112	1465 (D)	1550	
6/26/2018				231				
6/27/2018	205	281	372			1450		
6/28/2018					109		1530	
7/31/2018					107			
8/1/2018						1560	1580	
8/10/2018								183
8/23/2018					108	1470		145
9/19/2018					117	1500		178
10/29/2018					127	1720	1750	157
11/28/2018					133	1730	1780	189
12/18/2018		293		231				
12/19/2018			370			1520	1650	
12/20/2018	200				113			150
1/16/2019							589 (O)	
1/17/2019								157
2/13/2019								169
3/19/2019	199					1100		
3/20/2019		278	409	235 (D)	127		1740	186.5 (D)
10/15/2019				174				
10/16/2019		266				1560	1590	155
12/3/2019					105			
12/4/2019	241		293					
3/3/2020								
3/4/2020	205	238		165		1380	1370	129
3/5/2020			269		106			
9/15/2020		241		126				
9/16/2020	190		255		103	1360		
9/17/2020							1330	165
3/1/2021								
3/2/2021				139	98.3	1360		

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/3/2021	172	341						
3/4/2021			185				1250	114
9/21/2021								
9/22/2021								
9/23/2021					97.5	1240		
9/27/2021							1180	
9/28/2021	137	250	189	112				132
2/1/2022								
2/2/2022			210	117	90.1	1170		126
2/3/2022		274					1270	
2/4/2022	172							
8/23/2022				158		1410		
8/24/2022		298					1400	
8/25/2022	176		254		114			142

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-23S (bg)	BRGWC-30I
8/31/2016	151	88	138	154					
9/1/2016					69	142	299		
9/6/2016								146	505
9/8/2016									
11/15/2016				123			41		
11/16/2016	69	41	77		100	100			
11/17/2016								211	
11/18/2016									
11/21/2016									515
2/20/2017			170	158			133		
2/21/2017	68	<10			37	71		151	
2/22/2017									504
6/12/2017	161		132	142			61		
6/13/2017		53			84			130	
6/14/2017						140			536
9/26/2017	167	45	108	138	68	149	29	160	
9/27/2017									432
2/13/2018	165	63	141	150			61		
2/14/2018					138	137		194	448
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	188	71	133	154	90	142	71	221	
6/27/2018									
6/28/2018									494
7/31/2018					83	133			
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	145 (X)	78 (X)	138 (X)	147	85	135	70 (X)	208	715
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	146.5 (D)	68	130	146	82 (JX)	132 (JX)	72	161 (JX)	
3/20/2019									885
10/15/2019	140	66	175	144	89	134	63	124	
10/16/2019									
12/3/2019									
12/4/2019									612
3/3/2020	155	41	<10	130	72	115	54		
3/4/2020								118	
3/5/2020									681
9/15/2020	116	69	100	116	60	95	79	109	
9/16/2020									634
9/17/2020									
3/1/2021	98						39		
3/2/2021		43	80	96	43	93		105	





# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	460	478	607	654				
11/15/2016								
11/16/2016								
11/17/2016	611							
11/18/2016		503						
11/21/2016			695	819				
2/20/2017								
2/21/2017	497	380						
2/22/2017			635	721				
6/12/2017								
6/13/2017	474	354						
6/14/2017			635	661				
9/26/2017								
9/27/2017	457	376	601	518				
2/13/2018								
2/14/2018	431	503 (JX)	628	487				
3/6/2018					2200	346		
3/15/2018							2440	
5/1/2018					2080 (D)	374	2190	
6/26/2018	414							
6/27/2018		458 (X)	2280	648 (X)	31 (OX)			
6/28/2018						333	2290	
7/31/2018						393		
8/1/2018					2190		2360	
8/10/2018								344
8/23/2018					2160	350		333
9/19/2018					2160	353		364
10/29/2018					2130	329	2300	334
11/28/2018					2320	358	2300	357
12/18/2018	401			407				
12/19/2018			605		2060		2190	
12/20/2018		344				322		355
1/16/2019							2270	
1/17/2019								347
2/13/2019								350
3/19/2019		334 (JX)			2050 (JX)			
3/20/2019	410.5 (D)		564	391		302	2280	360 (D)
10/15/2019	380							
10/16/2019				2030	2220		2280	346
12/3/2019						362		
12/4/2019		422	526					
3/3/2020								
3/4/2020	330	326		391	2140		2270	351
3/5/2020			489			297		
9/15/2020	272			281				
9/16/2020		301	428		2090	275		
9/17/2020							1910	329
3/1/2021								
3/2/2021	280				1680	264		

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2022 4:39 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-25I	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
3/3/2021		288		515				
3/4/2021			350				1520	383
9/21/2021								
9/22/2021								
9/23/2021					1770	277		
9/27/2021							1800	
9/28/2021	270	262	375	457				336
2/1/2022								
2/2/2022	283		443		1850	276		160
2/3/2022				419			1850	
2/4/2022		301						
8/23/2022	315				2060			
8/24/2022				383			1990	
8/25/2022		311	437			248		296

FIGURE E.

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-271	-0.1256	-73	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-291	-0.1312	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-23S (bg)	-1.083	-59	-58	Yes	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1657	69	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-25I	-4.85	-88	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-271	-3.929	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-30I	23.17	97	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-45	-2.344	-67	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-12I (bg)	-0.2039	-88	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-23S (bg)	-0.1807	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2006	-67	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-45	-8.907	-78	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-50	-2.087	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-52I	-0.3801	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-12S (bg)	0.006411	71	68	Yes	18	66.67	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-23S (bg)	-0.04537	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1019	-79	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.0368	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.05383	-81	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12I (bg)	-0.2311	-105	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12S (bg)	-0.1348	-81	-63	Yes	17	17.65	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-25I	-35.25	-81	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-271	-22.5	-90	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-291	-32.54	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-30I	43.71	60	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-32S	-35.7	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.658	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-25I	-46.21	-96	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-271	-26.31	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-291	-63.47	-63	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-30I	99.28	74	58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-32S	-48.29	-81	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-50	-115.9	-68	-58	Yes	16	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-12I (bg)	-0.0002161	-11	-58	No	16	18.75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-12S (bg)	0	8	58	No	16	81.25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-23S (bg)	0.001638	21	58	No	16	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2I (bg)	0.001506	18	58	No	16	25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-3	-58	No	16	87.5	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-6	-58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-8	-58	No	16	56.25	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	2	58	No	16	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-25I	-0.09624	-49	-58	No	16	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-27I</b>	<b>-0.1256</b>	<b>-73</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>BRGWC-29I</b>	<b>-0.1312</b>	<b>-67</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-30I	0.006741	14	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-32S	-0.05023	-39	-63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-47	0.0244	42	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-50	0.004693	15	58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-52I	0.01634	16	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12I (bg)	-0.01457	-1	-63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12S (bg)	0.1808	27	63	No	17	5.882	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-1.083</b>	<b>-59</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>6.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWA-2I (bg)	0.5425	43	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.073	30	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.03321	5	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.5076	-36	-58	No	16	6.25	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-6S (bg)</b>	<b>0.1657</b>	<b>69</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BRGWC-25I</b>	<b>-4.85</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BRGWC-27I</b>	<b>-3.929</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-29I	-6.709	-54	-58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-30I</b>	<b>23.17</b>	<b>97</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-32S	-4.259	-54	-58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-45</b>	<b>-2.344</b>	<b>-67</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-47	0.1986	3	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-50	-7.514	-42	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-52I	0.4585	11	53	No	15	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2039</b>	<b>-88</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-12S (bg)	0.05355	39	63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.1807</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-2I (bg)	-0.04825	-38	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	-0.02501	-21	-58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-5I (bg)</b>	<b>-0.2006</b>	<b>-67</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-5S (bg)	-0.07499	-48	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	-0.01997	-21	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-29I	-0.1991	-46	-58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWC-45</b>	<b>-8.907</b>	<b>-78</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-50</b>	<b>-2.087</b>	<b>-78</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-52I</b>	<b>-0.3801</b>	<b>-70</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	BRGWA-12I (bg)	-0.01195	-45	-68	No	18	22.22	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>0.006411</b>	<b>71</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>66.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	BRGWA-23S (bg)	0	-10	-68	No	18	55.56	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-17	-68	No	18	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	49	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	54	68	No	18	72.22	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	0	-20	-68	No	18	38.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0	55	68	No	18	61.11	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-50	-0.07419	-28	-68	No	18	0	n/a	n/a	0.01	NP

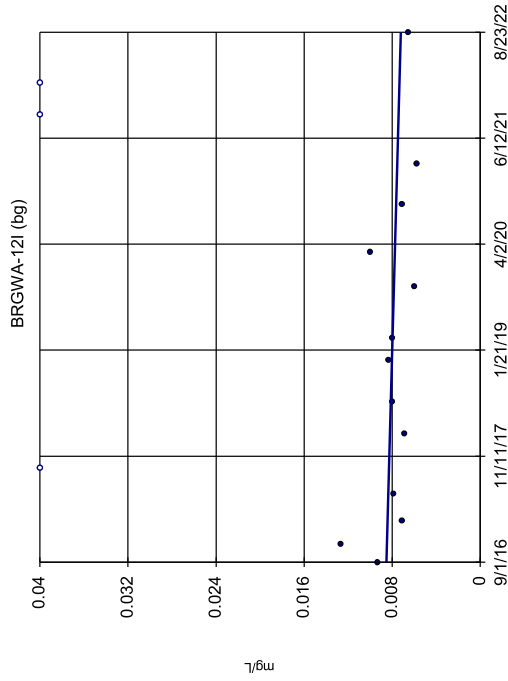
# Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 9/30/2022, 4:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH, Field (S.U.)	BRGWA-12I (bg)	-0.03267	-43	-81	No	20	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12S (bg)	-0.02298	-48	-74	No	19	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.04537</b>	<b>-79</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.1019</b>	<b>-79</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.0368</b>	<b>-71</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02765	-47	-68	No	18	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-5S (bg)</b>	<b>-0.05383</b>	<b>-81</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U.)	BRGWA-6S (bg)	0	0	63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-29I	-0.01622	-18	-68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-50	-0.05165	-47	-74	No	19	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2311</b>	<b>-105</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>-0.1348</b>	<b>-81</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>17.65</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWA-23S (bg)	-5.093	-42	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.1382	-32	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	-0.00315	-15	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.3159	-48	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.07263	-52	-58	No	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.01229	-34	-58	No	16	25	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-25I</b>	<b>-35.25</b>	<b>-81</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-27I</b>	<b>-22.5</b>	<b>-90</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-29I</b>	<b>-32.54</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-30I</b>	<b>43.71</b>	<b>60</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-32S</b>	<b>-35.7</b>	<b>-74</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-45	-3.782	-45	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-47	-66.51	-50	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-50	-99.04	-44	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-52I	-11.11	-49	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12I (bg)	-5.702	-55	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12S (bg)	-6.383	-48	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-23S (bg)	-10.83	-53	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-6.071	-28	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.7623	11	58	No	16	6.25	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-4.462	-30	-58	No	16	6.25	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWA-5S (bg)</b>	<b>-7.658</b>	<b>-65</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.774	-23	-58	No	16	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-25I</b>	<b>-46.21</b>	<b>-96</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-27I</b>	<b>-26.31</b>	<b>-78</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-29I</b>	<b>-63.47</b>	<b>-63</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-30I</b>	<b>99.28</b>	<b>74</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>-48.29</b>	<b>-81</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWC-47	-71.84	-54	-58	No	16	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>-115.9</b>	<b>-68</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

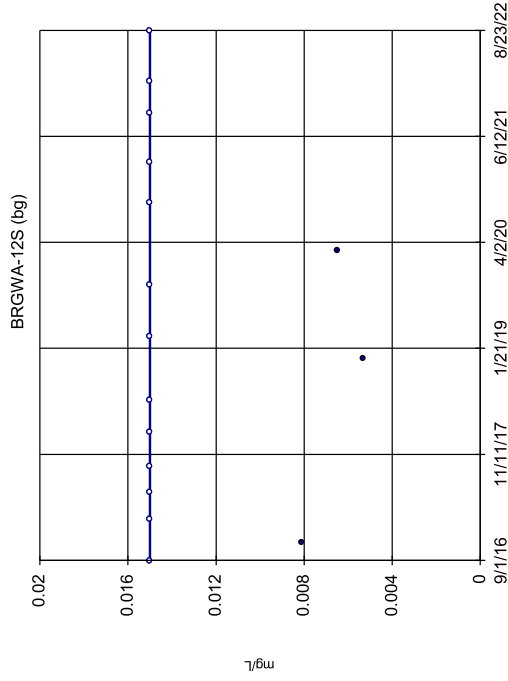
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

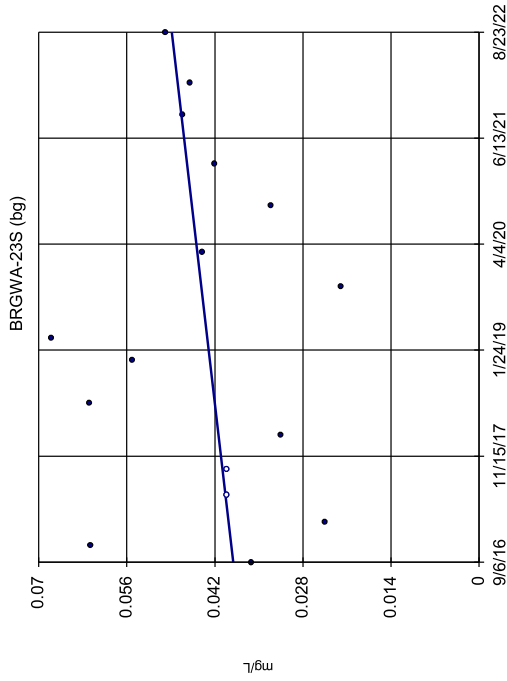
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

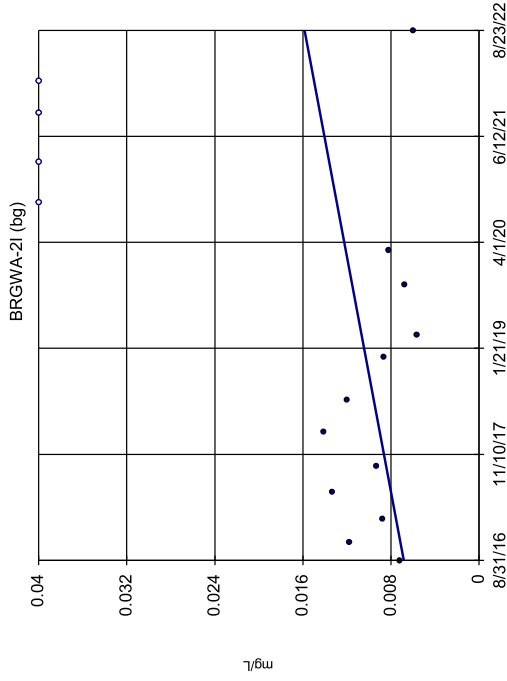
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

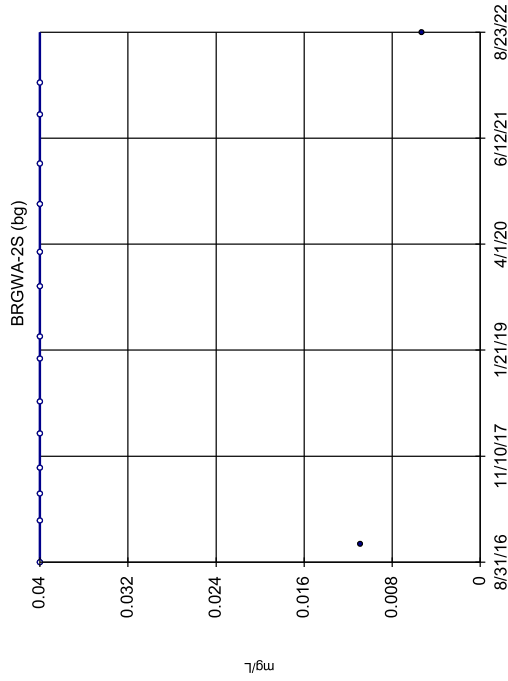


Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP



Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

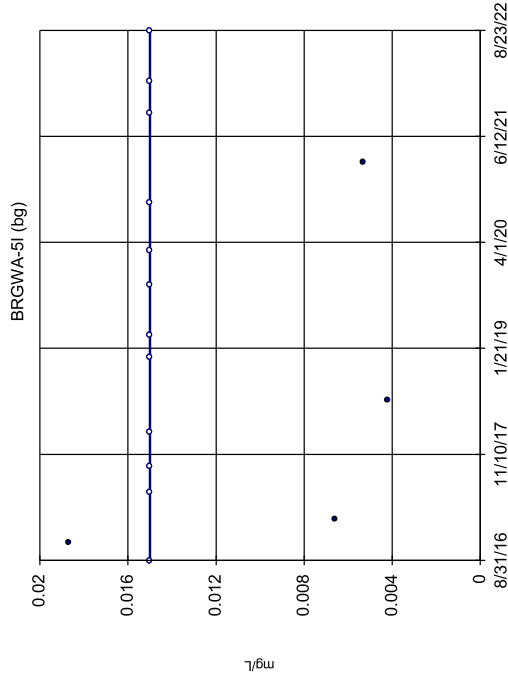
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

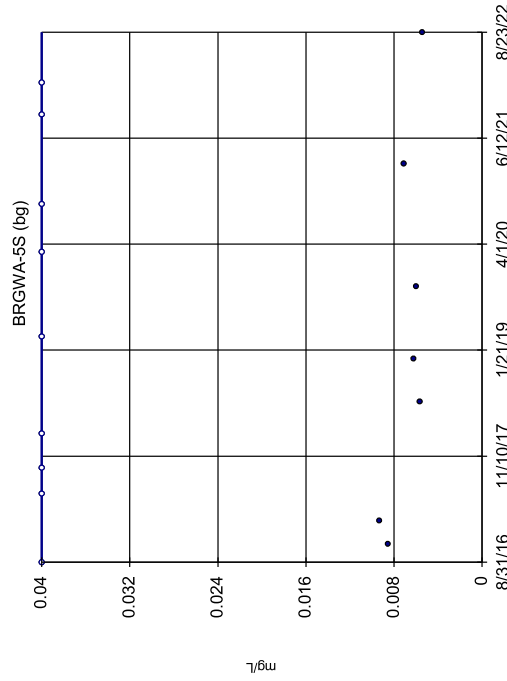
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

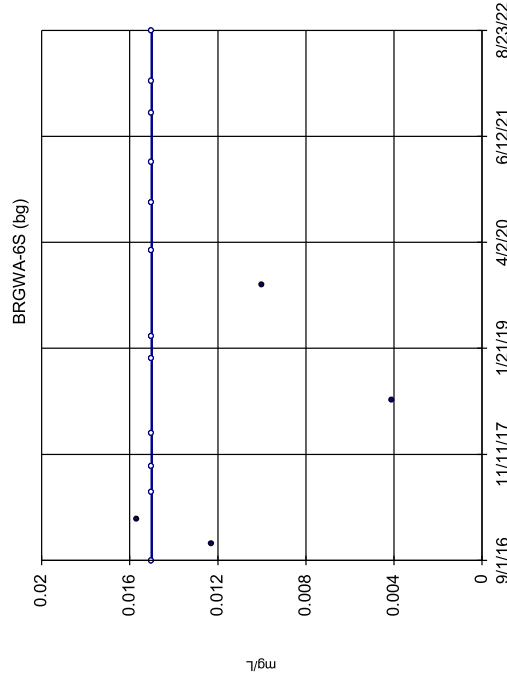
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

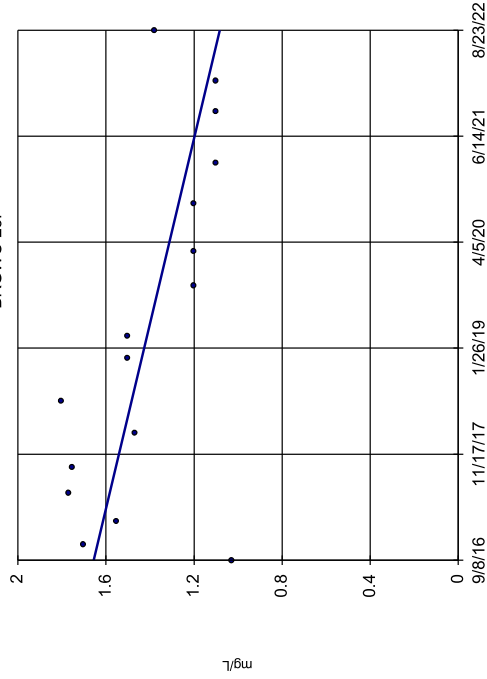
### Sen's Slope Estimator



Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-251

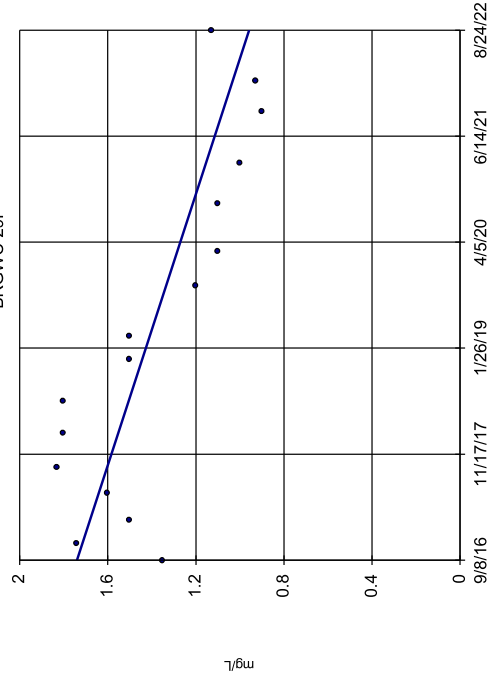


n = 16  
 Slope = -0.09624  
 units per year.  
 Mann-Kendall  
 statistic = -49  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-291

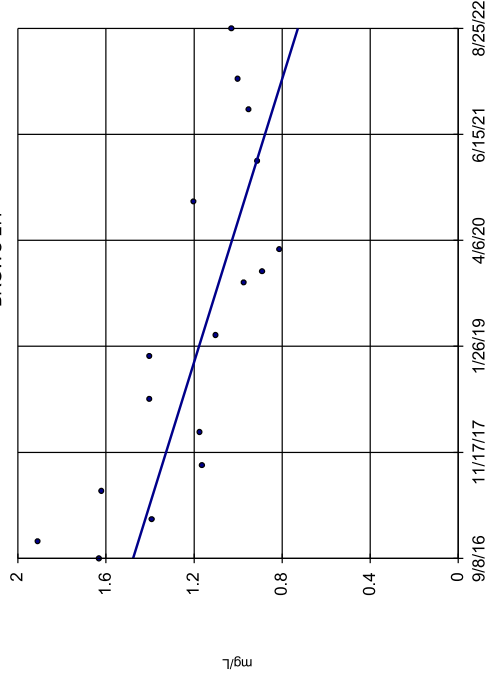


n = 16  
 Slope = -0.1312  
 units per year.  
 Mann-Kendall  
 statistic = -67  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-271

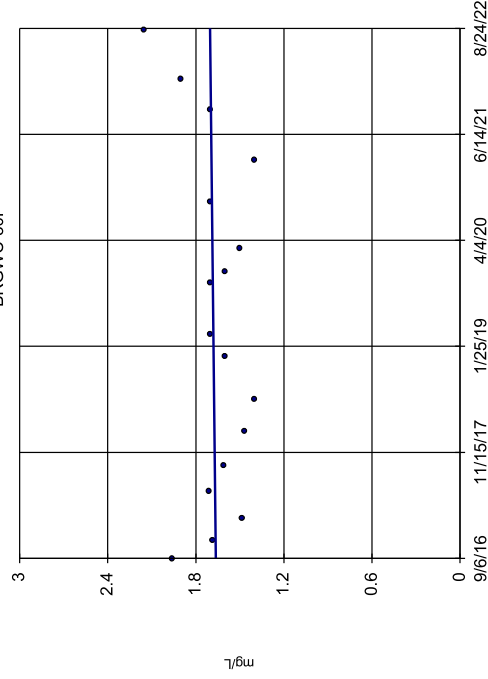


n = 17  
 Slope = -0.1256  
 units per year.  
 Mann-Kendall  
 statistic = -73  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-301

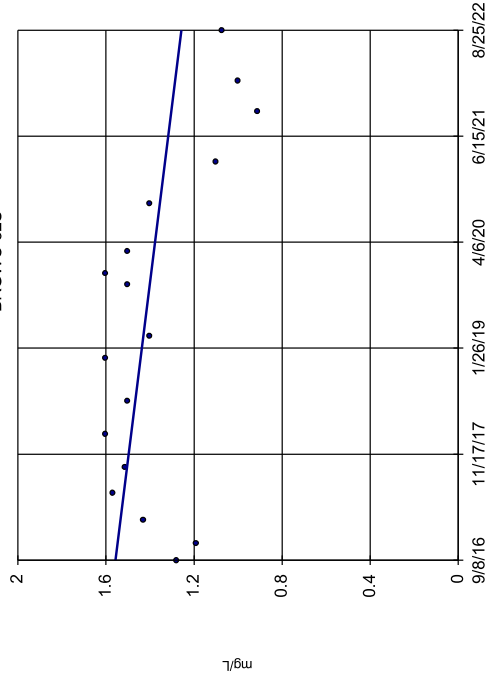


n = 17  
 Slope = 0.006741  
 units per year.  
 Mann-Kendall  
 statistic = 14  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-32S

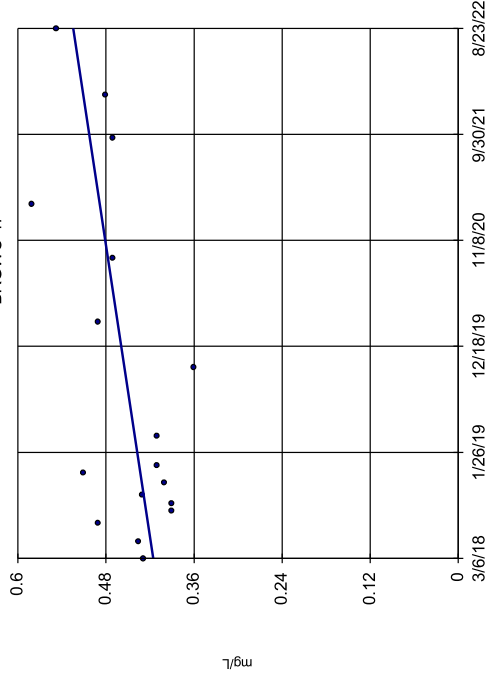


n = 17  
 Slope = 0.05023  
 units per year.  
 Mann-Kendall  
 statistic = -39  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (alpha = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-47

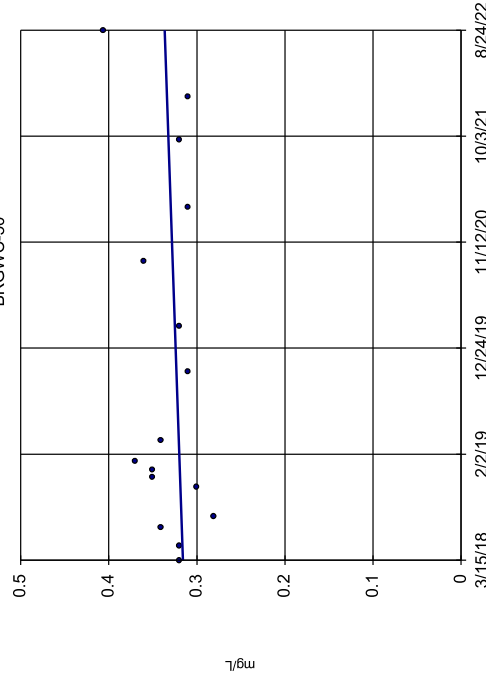


n = 17  
 Slope = 0.0244  
 units per year.  
 Mann-Kendall  
 statistic = 42  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (alpha = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50

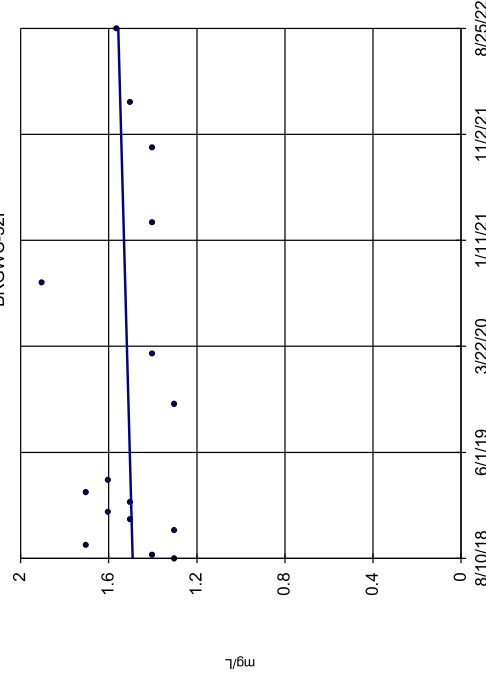


n = 16  
 Slope = 0.004693  
 units per year.  
 Mann-Kendall  
 statistic = 15  
 critical = 58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (alpha = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-52I



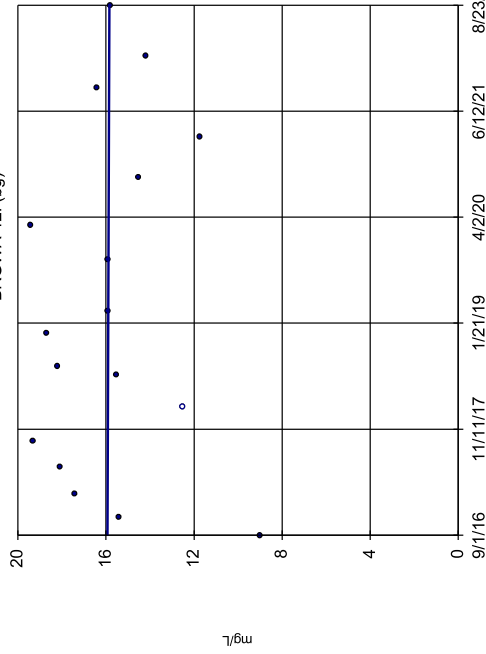
n = 16  
 Slope = 0.01634  
 units per year.  
 Mann-Kendall  
 statistic = 16  
 critical = 58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (alpha = 0.005 per  
 tail).

Constituent: Boron Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-12L (bg)



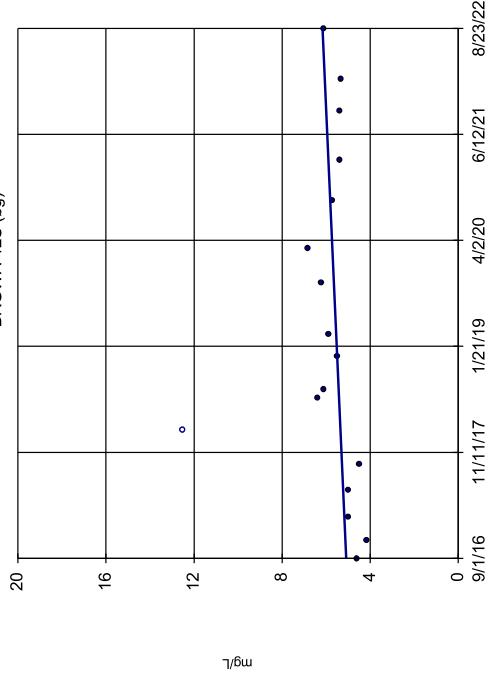
n = 17  
Slope = -0.01457  
units per year.  
Mann-Kendall  
statistic = -1  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 9/30/2022 4:41 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-12S (bg)



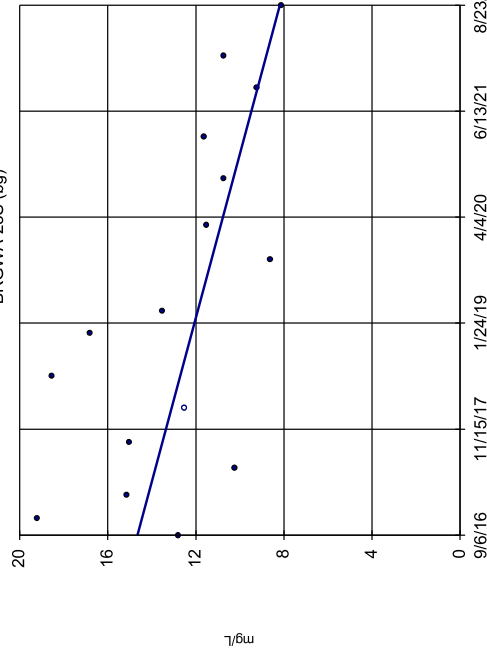
n = 17  
Slope = 0.1808  
units per year.  
Mann-Kendall  
statistic = 27  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-23S (bg)



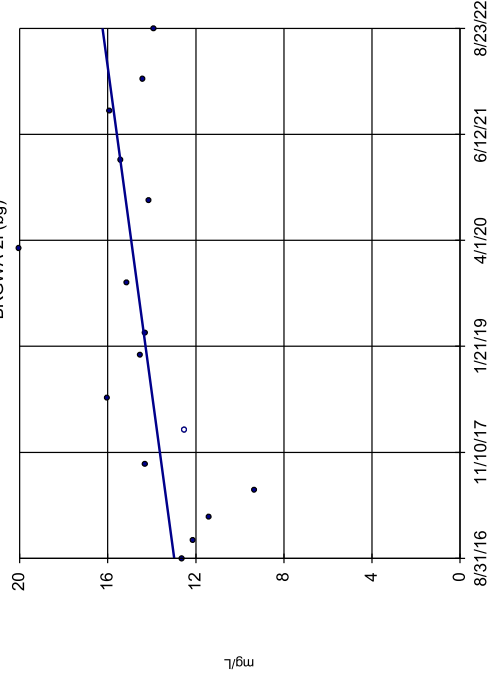
n = 16  
Slope = -1.083  
units per year.  
Mann-Kendall  
statistic = -59  
critical = -58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

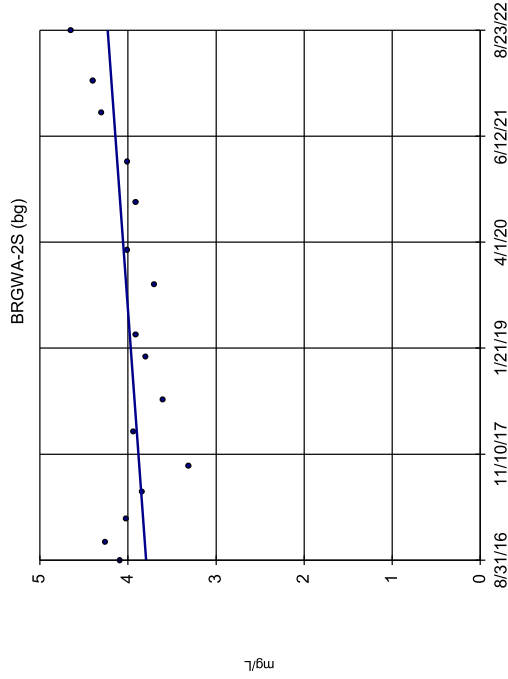
BRGWA-2I (bg)



n = 16  
Slope = 0.5425  
units per year.  
Mann-Kendall  
statistic = 43  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

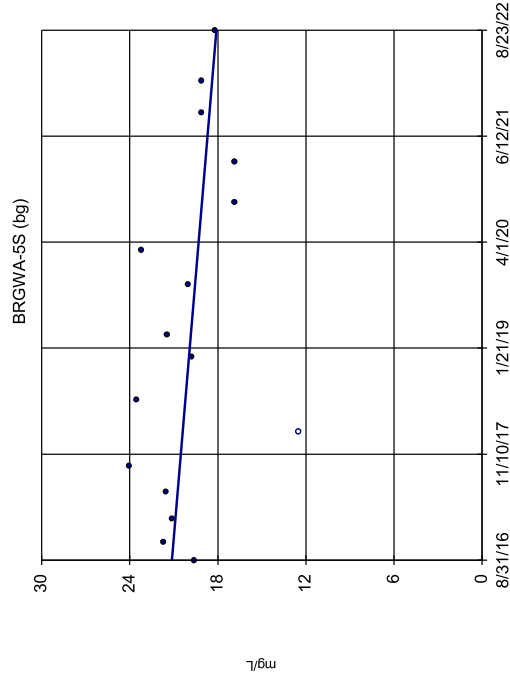
Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



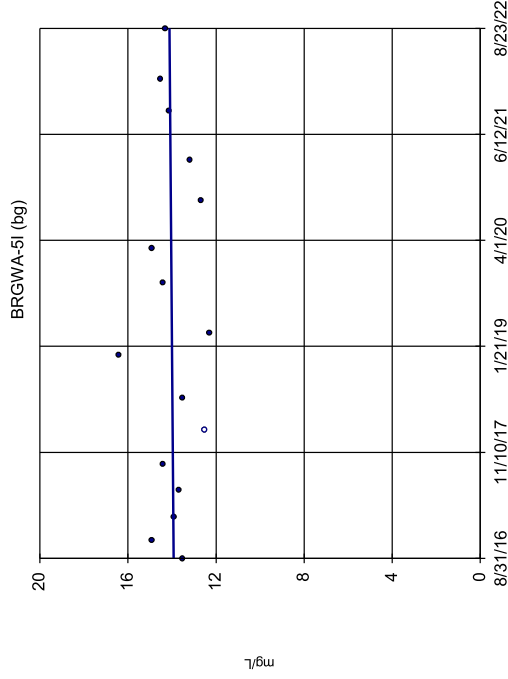
Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



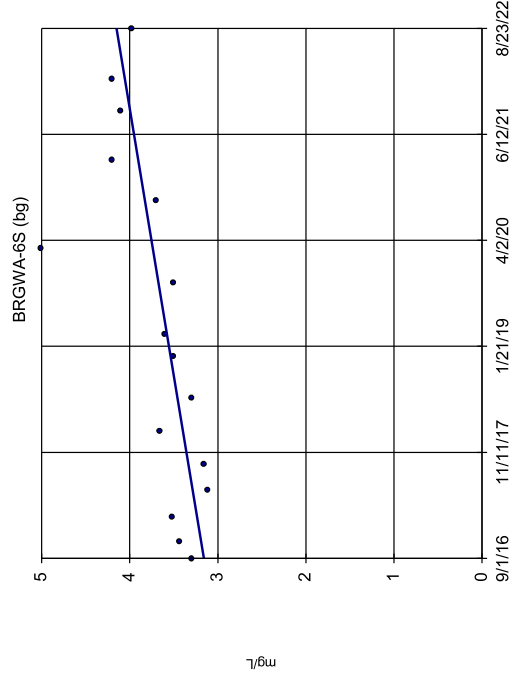
Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



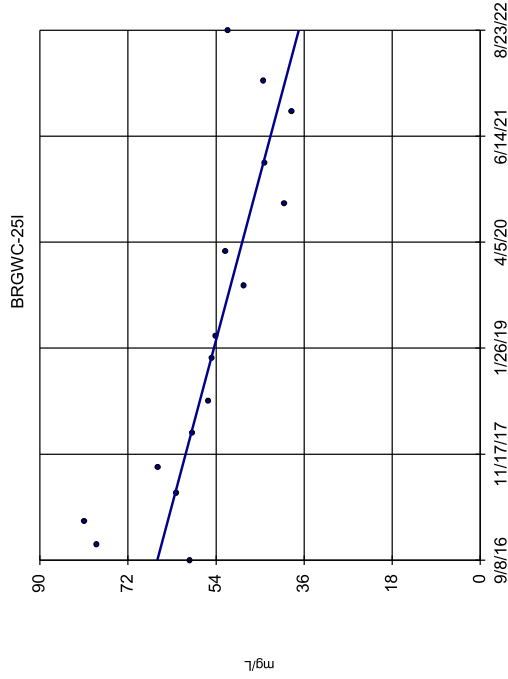
Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

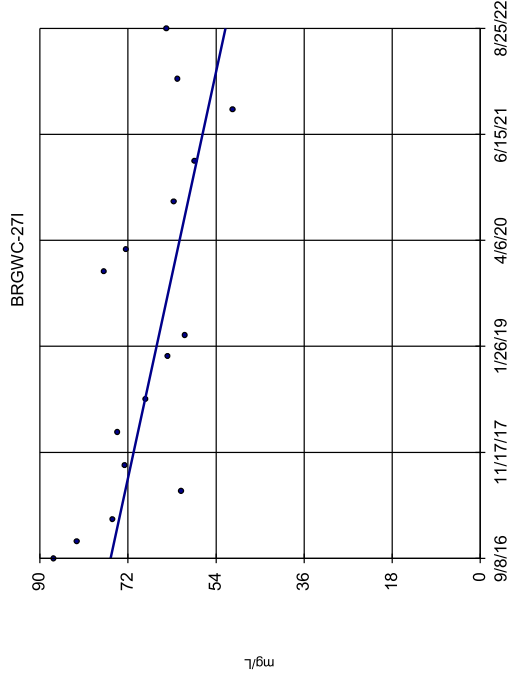
### Sen's Slope Estimator



n = 16  
 Slope = -4.85  
 units per year.  
 Mann-Kendall  
 statistic = -88  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

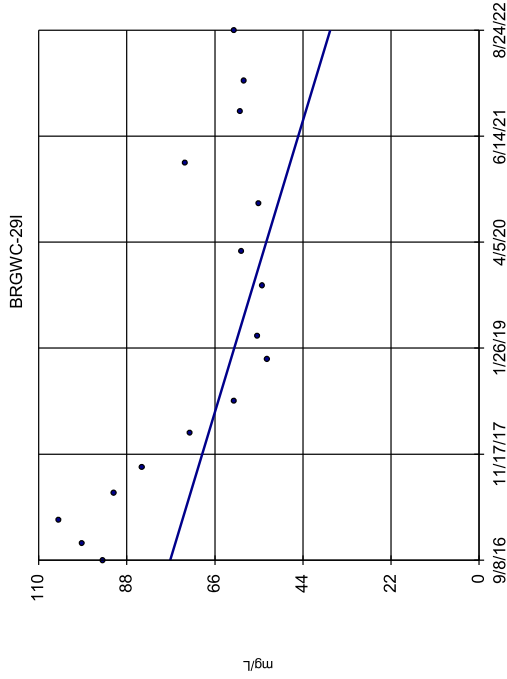
### Sen's Slope Estimator



n = 16  
 Slope = -3.029  
 units per year.  
 Mann-Kendall  
 statistic = -62  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

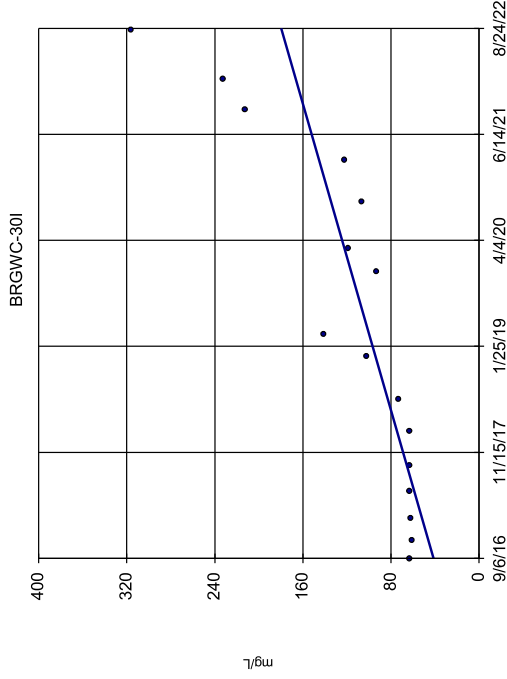
### Sen's Slope Estimator



n = 16  
 Slope = -6.709  
 units per year.  
 Mann-Kendall  
 statistic = -54  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

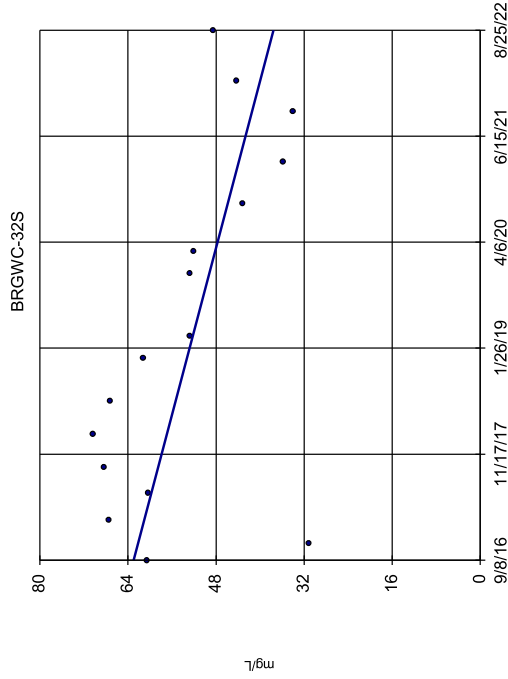
### Sen's Slope Estimator



n = 16  
 Slope = 23.17  
 units per year.  
 Mann-Kendall  
 statistic = 97  
 critical = 58  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

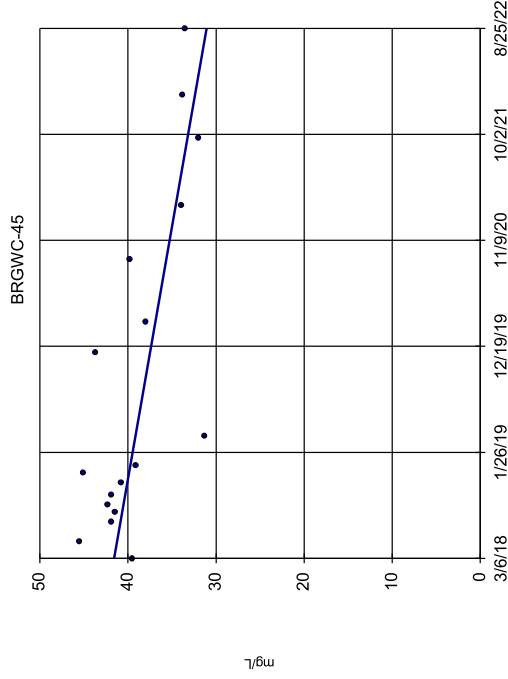
### Sen's Slope Estimator



n = 16  
 Slope = -4.259  
 units per year.  
 Mann-Kendall  
 statistic = -54  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

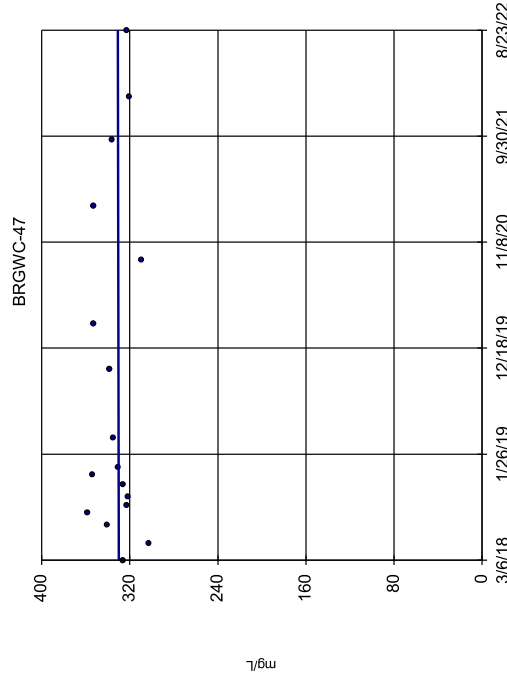
### Sen's Slope Estimator



n = 17  
 Slope = -2.344  
 units per year.  
 Mann-Kendall  
 statistic = -67  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

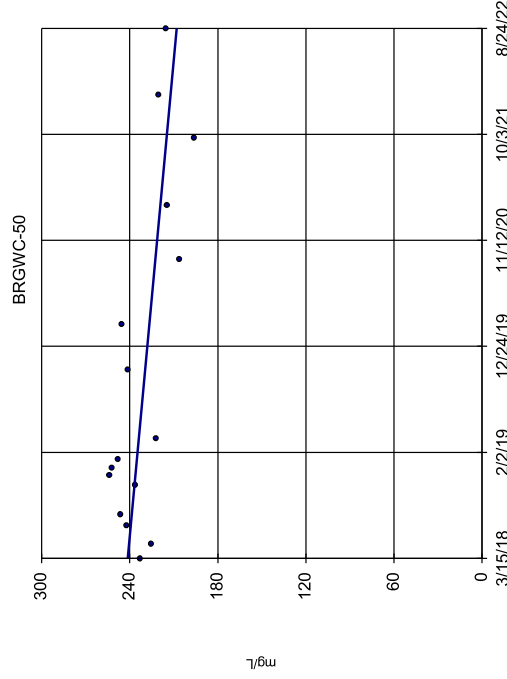
### Sen's Slope Estimator



n = 17  
 Slope = 0.1986  
 units per year.  
 Mann-Kendall  
 statistic = 3  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

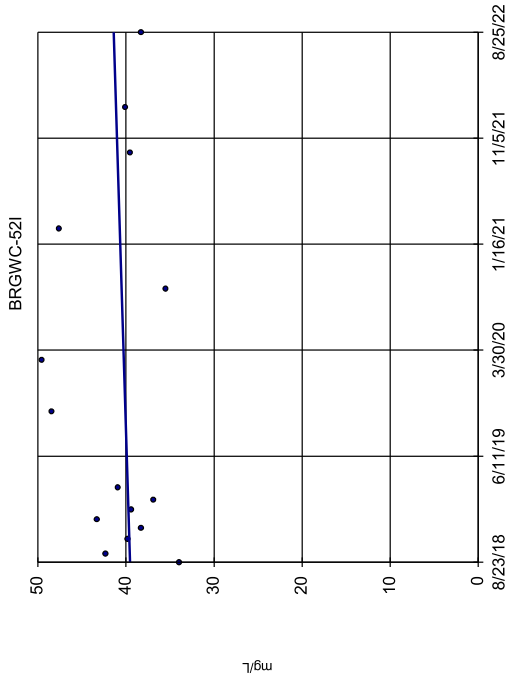
### Sen's Slope Estimator



n = 16  
 Slope = -7.514  
 units per year.  
 Mann-Kendall  
 statistic = -42  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

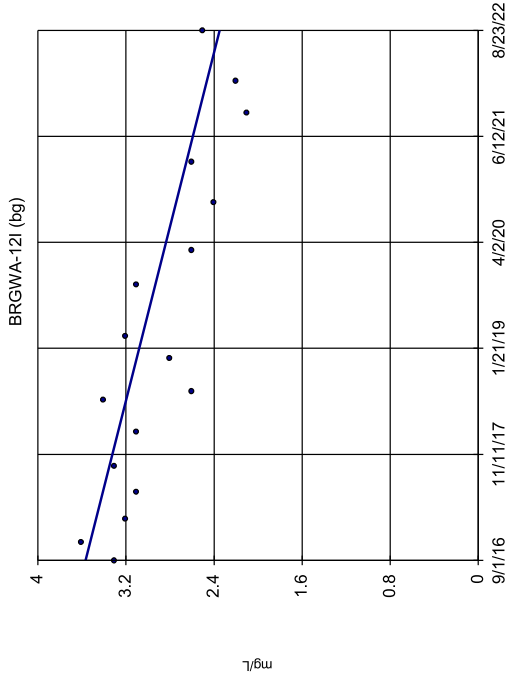
Sen's Slope Estimator



n = 15  
 Slope = 0.4585  
 units per year.  
 Mann-Kendall  
 statistic = 11  
 critical = 53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Calcium Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

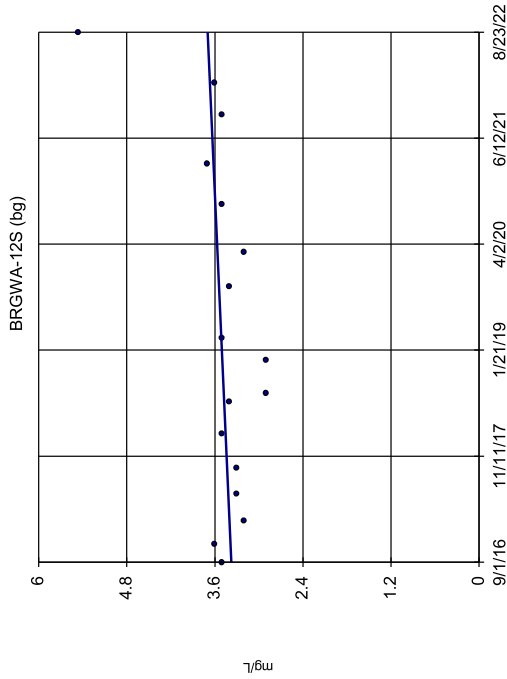
Sen's Slope Estimator



n = 17  
 Slope = -0.2029  
 units per year.  
 Mann-Kendall  
 statistic = -88  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

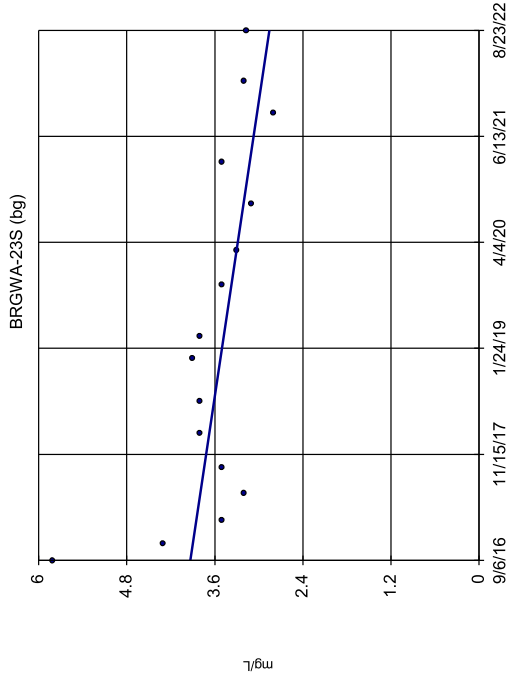
Sen's Slope Estimator



n = 17  
 Slope = 0.05355  
 units per year.  
 Mann-Kendall  
 statistic = 39  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

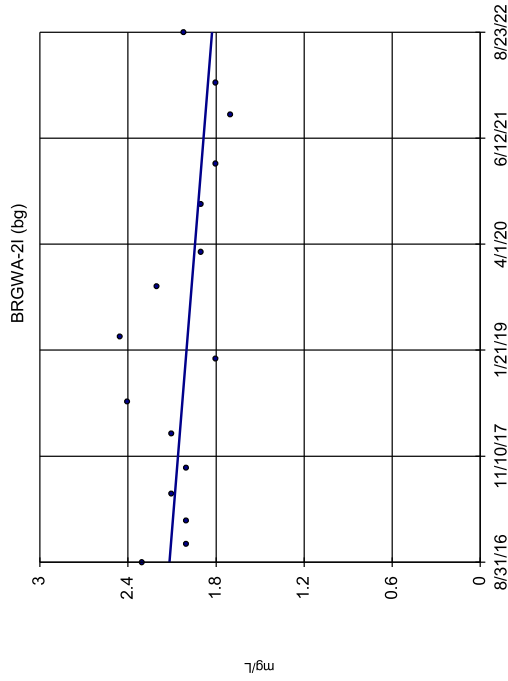


n = 16  
 Slope = -0.1807  
 units per year.  
 Mann-Kendall  
 statistic = -62  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP



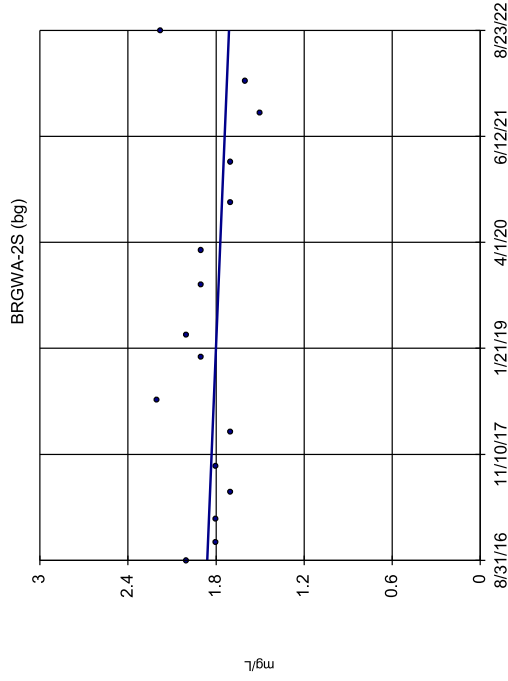
### Sen's Slope Estimator



n = 16  
 Slope = -0.04825  
 units per year.  
 Mann-Kendall  
 statistic = -38  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

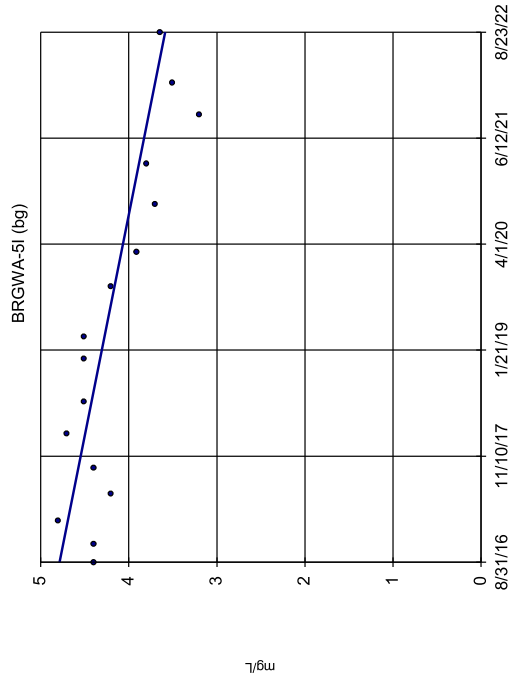
### Sen's Slope Estimator



n = 16  
 Slope = -0.02501  
 units per year.  
 Mann-Kendall  
 statistic = -21  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

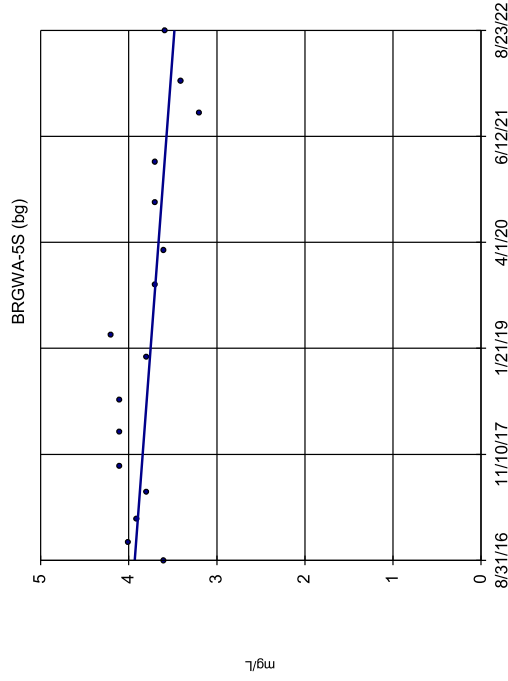
### Sen's Slope Estimator



n = 16  
 Slope = -0.2006  
 units per year.  
 Mann-Kendall  
 statistic = -67  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

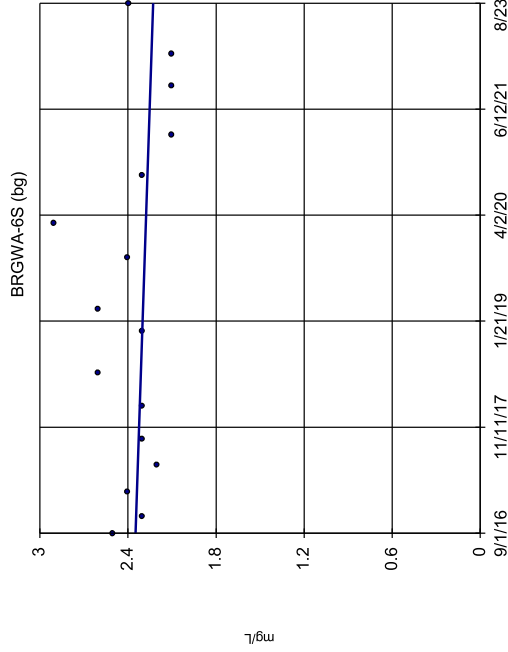
### Sen's Slope Estimator



n = 16  
 Slope = -0.07499  
 units per year.  
 Mann-Kendall  
 statistic = -48  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

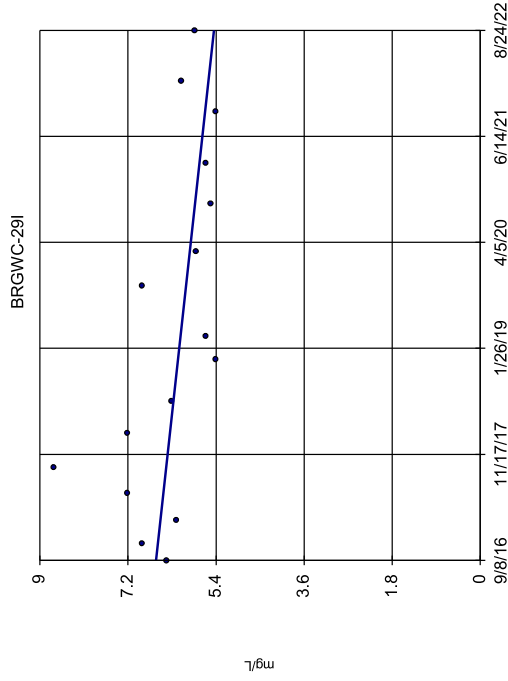
Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



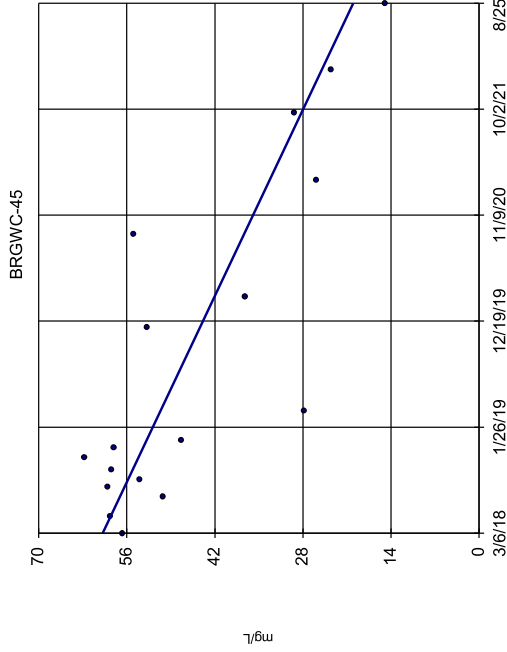
Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



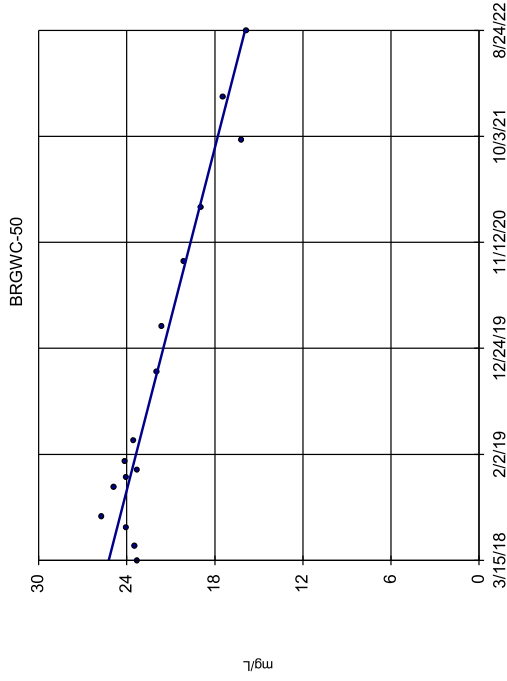
Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

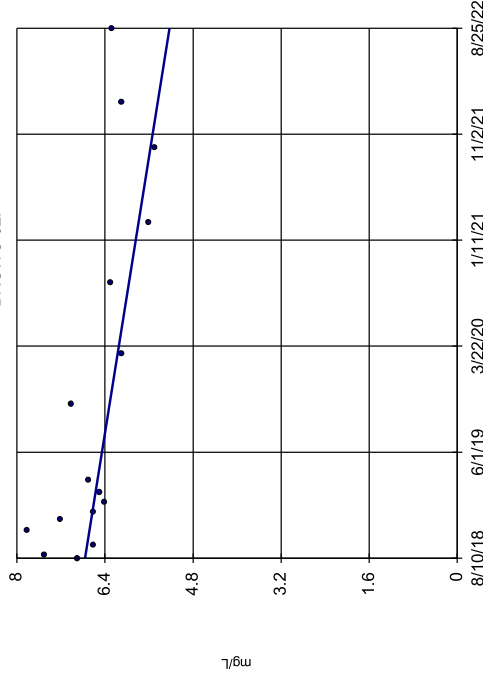
### Sen's Slope Estimator



Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-52I

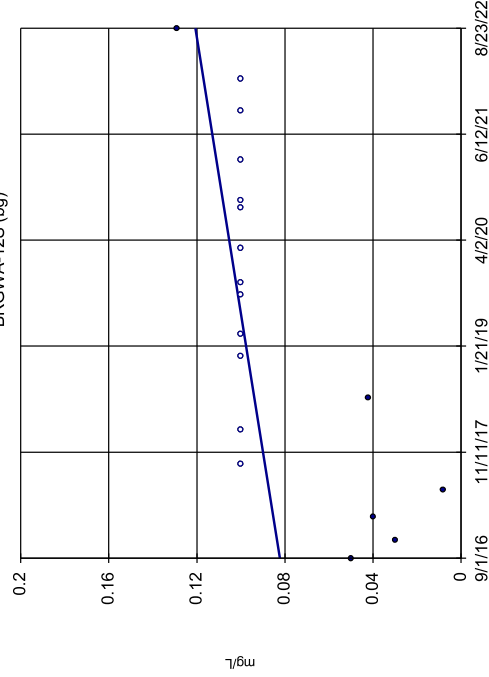


n = 16  
 Slope = 0.3801  
 units per year.  
 Mann-Kendall  
 statistic = -70  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Chloride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-12S (bg)

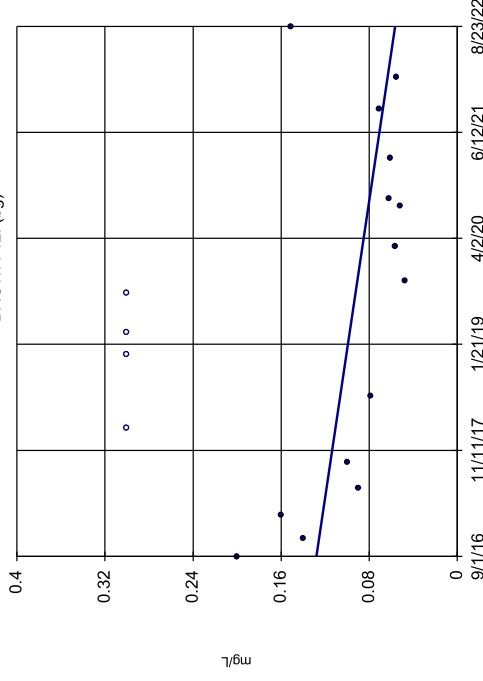


n = 18  
 Slope = 0.006411  
 units per year.  
 Mann-Kendall  
 statistic = 71  
 critical = 68  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-12I (bg)

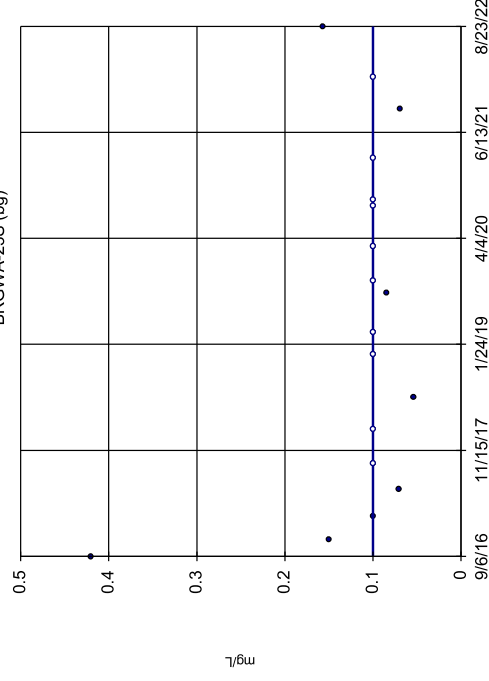


n = 18  
 Slope = -0.01195  
 units per year.  
 Mann-Kendall  
 statistic = -45  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-23S (bg)

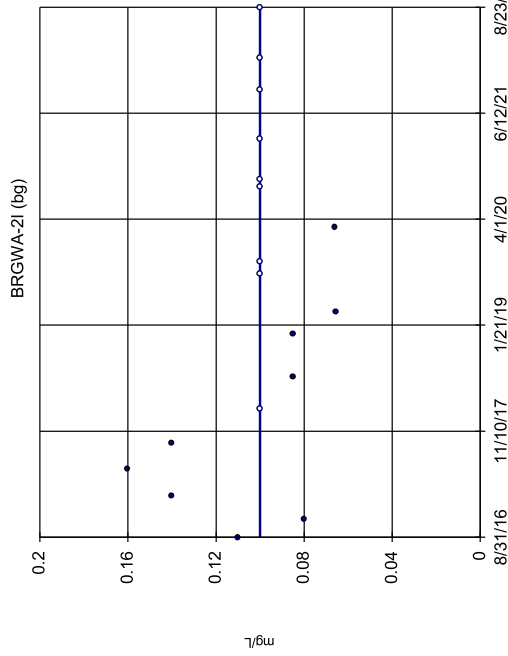


n = 18  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = -10  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

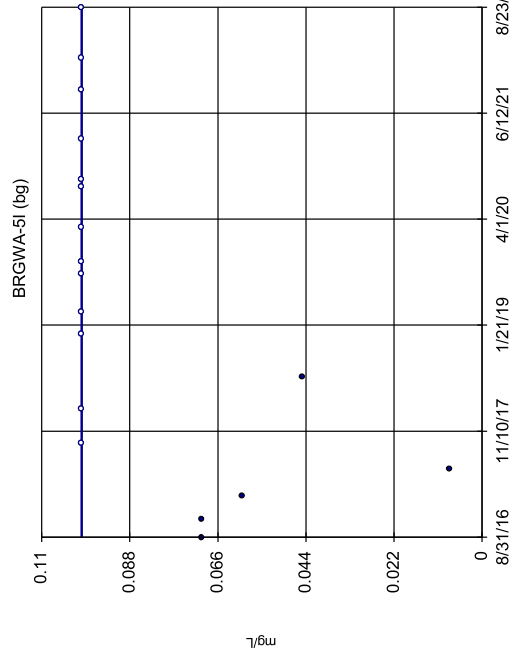


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -17  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

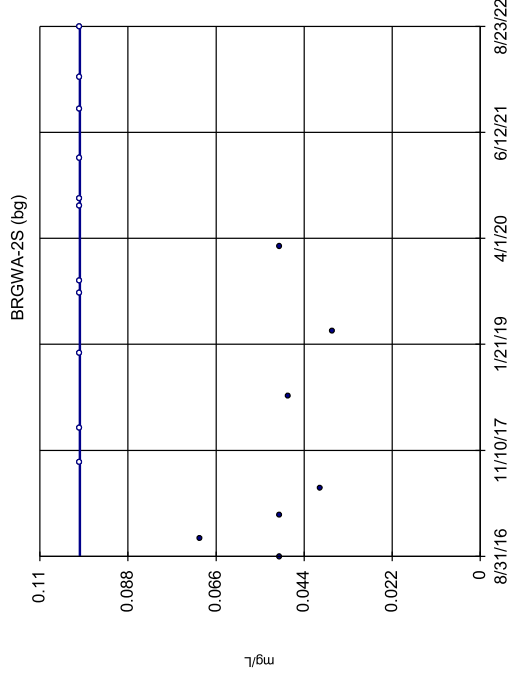


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 54  
critical = 68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

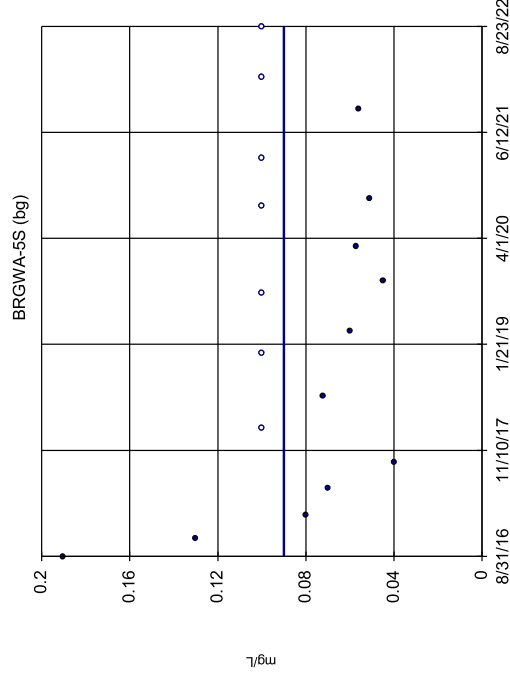


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 49  
critical = 68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.35 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

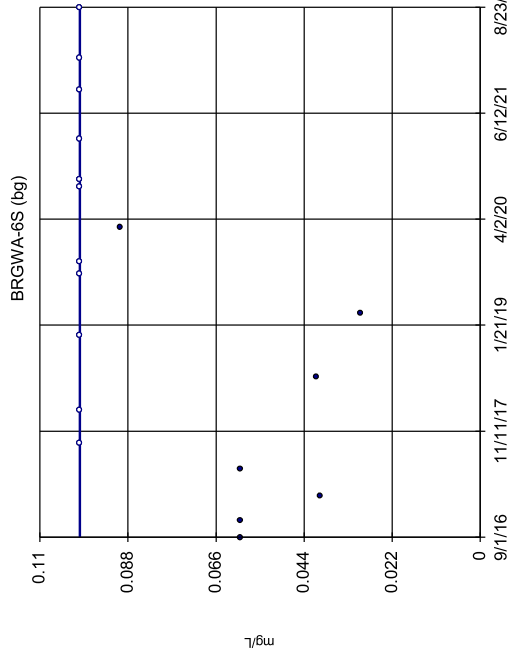
### Sen's Slope Estimator



n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -20  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

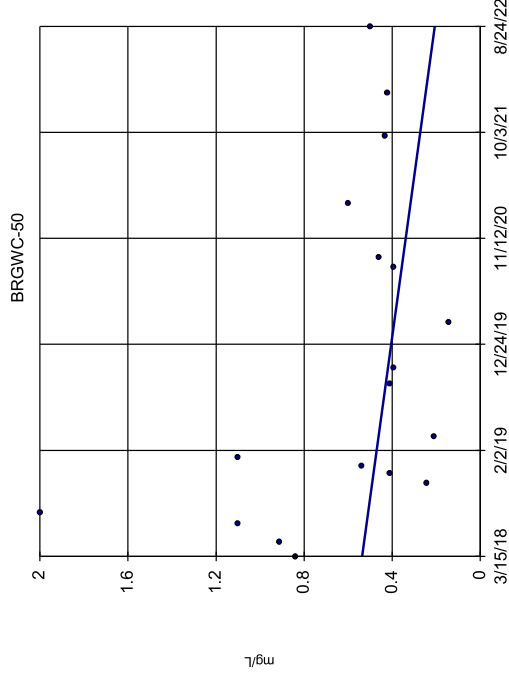
### Sen's Slope Estimator



n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 55  
critical = 68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

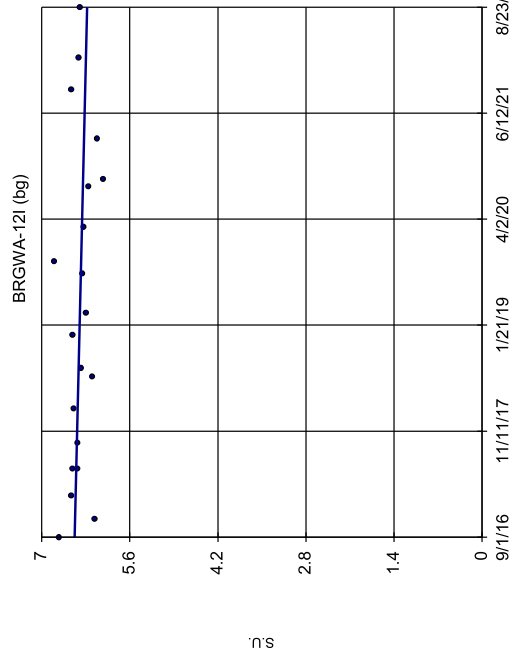
### Sen's Slope Estimator



n = 18  
Slope = -0.07419  
units per year.  
Mann-Kendall  
statistic = -28  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

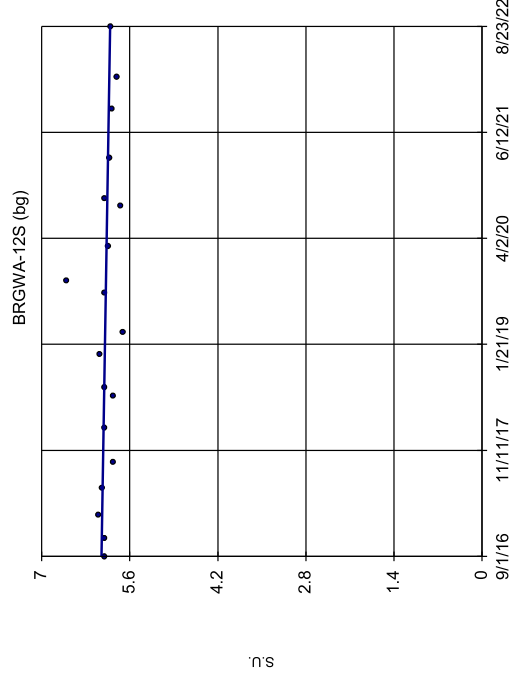
### Sen's Slope Estimator



n = 20  
Slope = -0.03267  
units per year.  
Mann-Kendall  
statistic = 43  
critical = -81  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: pH<sub>i</sub> Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

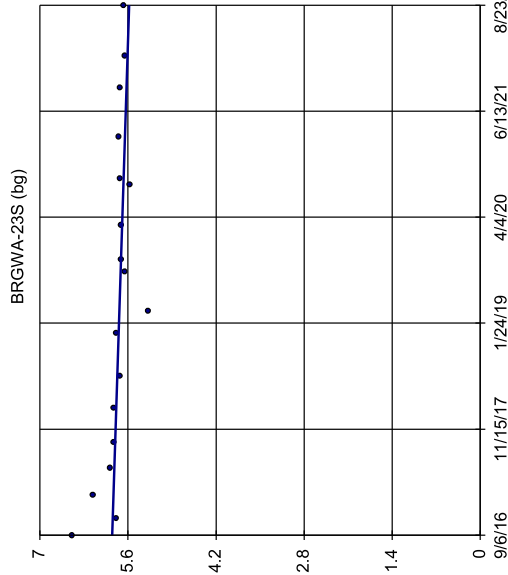
### Sen's Slope Estimator



n = 19  
Slope = -0.02298  
units per year.  
Mann-Kendall  
statistic = -48  
critical = -74  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: pH<sub>i</sub> Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

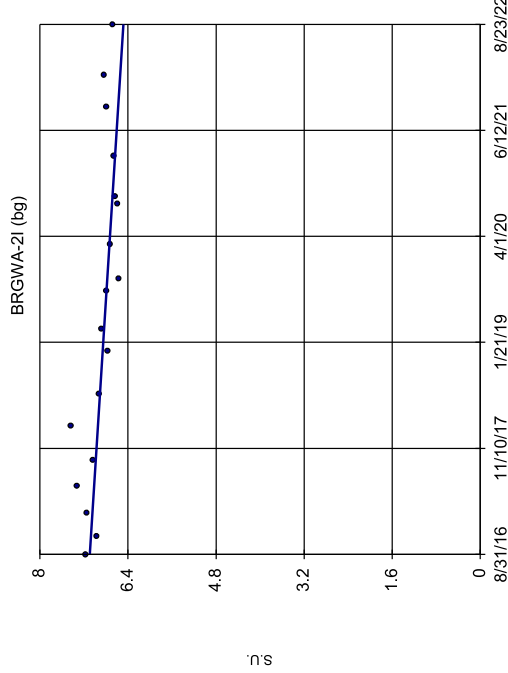
### Sen's Slope Estimator



n = 18  
 Slope = -0.04537  
 units per year.  
 Mann-Kendall  
 statistic = -79  
 critical = -68  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

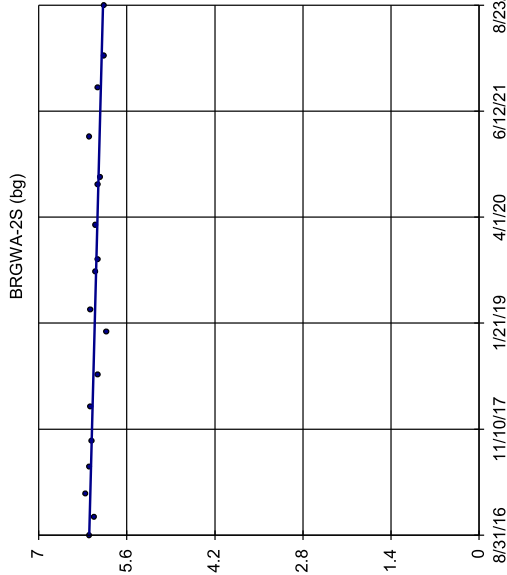
### Sen's Slope Estimator



n = 18  
 Slope = -0.1019  
 units per year.  
 Mann-Kendall  
 statistic = -79  
 critical = -68  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

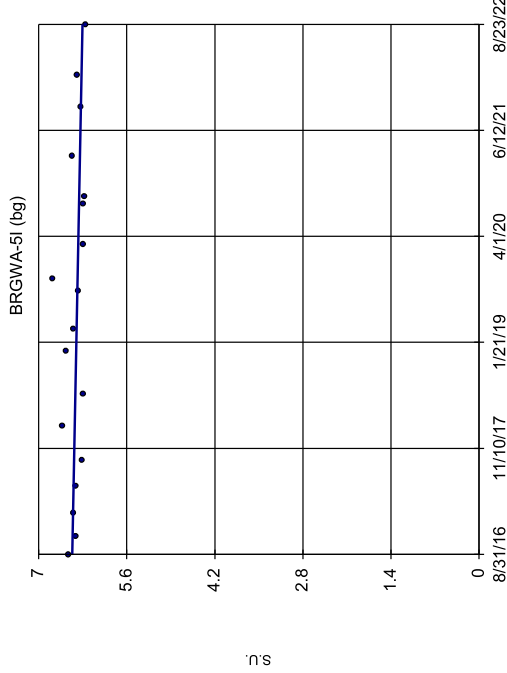
### Sen's Slope Estimator



n = 18  
 Slope = -0.0368  
 units per year.  
 Mann-Kendall  
 statistic = -71  
 critical = -68  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

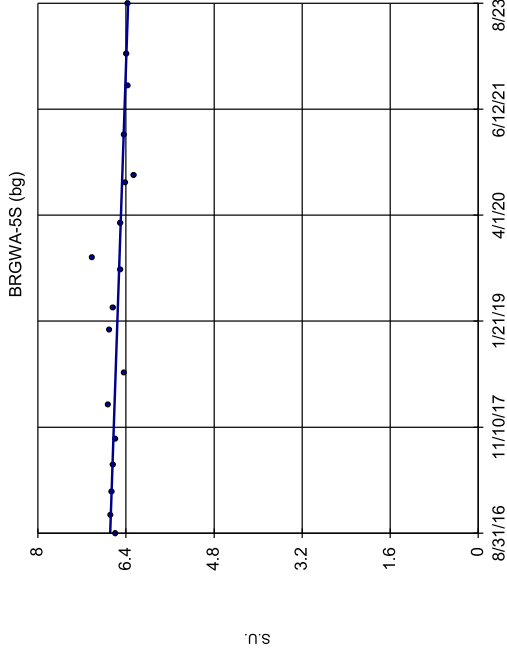
### Sen's Slope Estimator



n = 18  
 Slope = -0.02765  
 units per year.  
 Mann-Kendall  
 statistic = -47  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

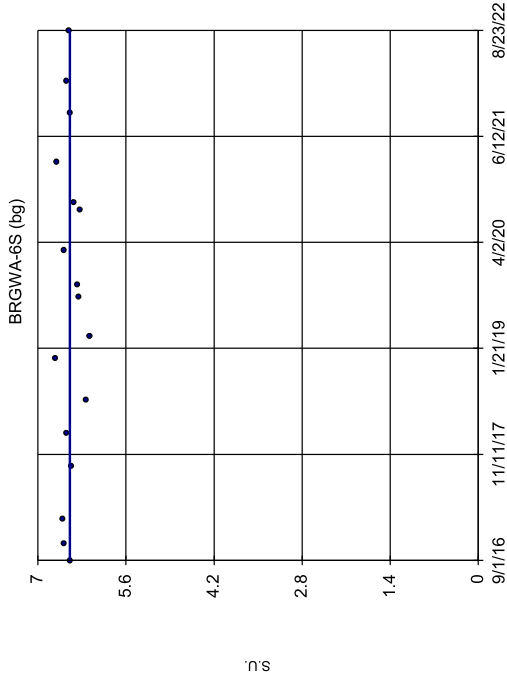
Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



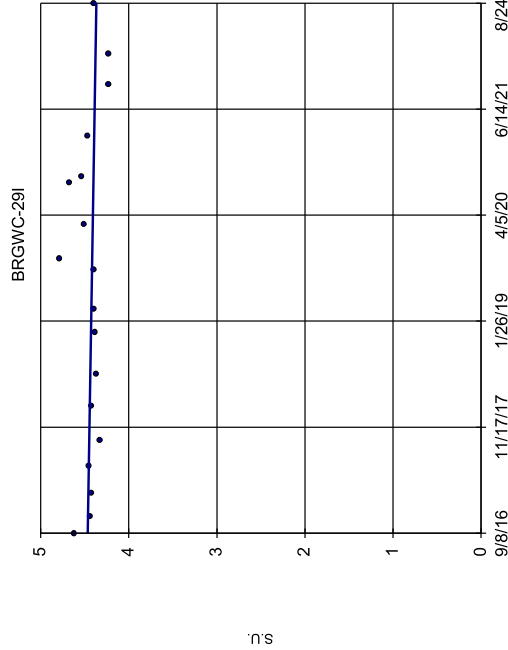
Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



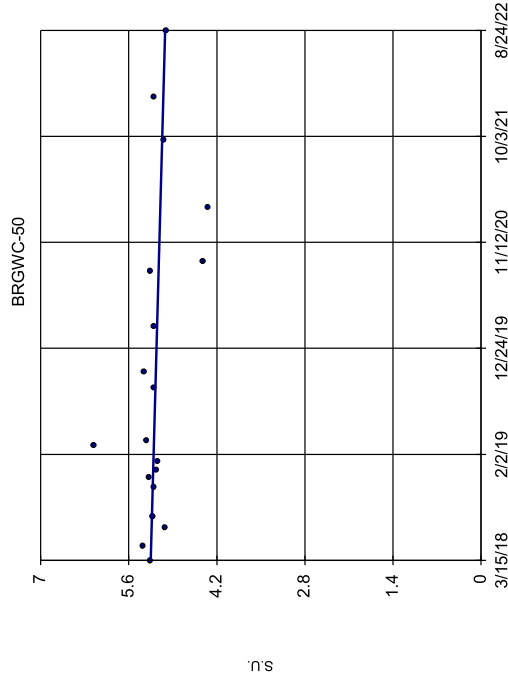
Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



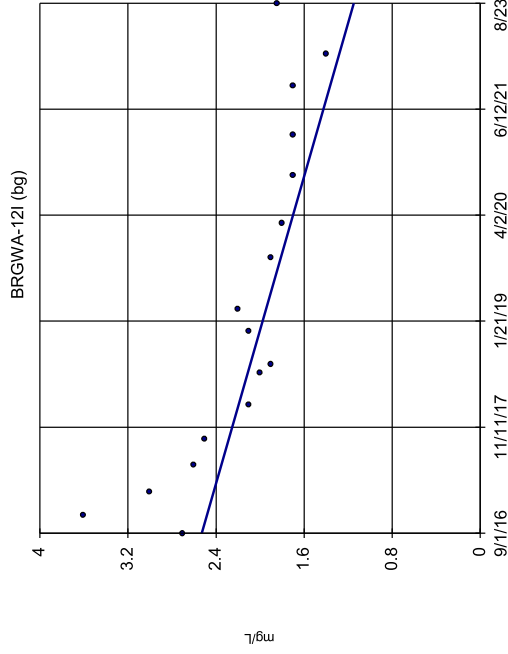
Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



Constituent: pH, Field Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

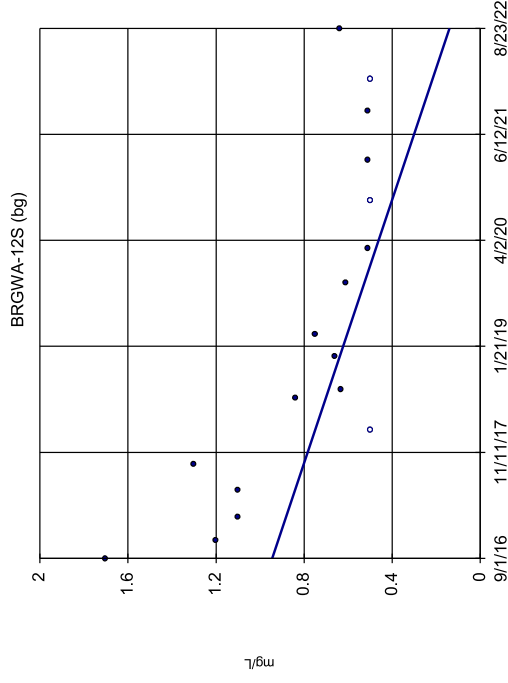
### Sen's Slope Estimator



n = 17  
 Slope = -0.2311  
 units per year.  
 Mann-Kendall  
 statistic = -105  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

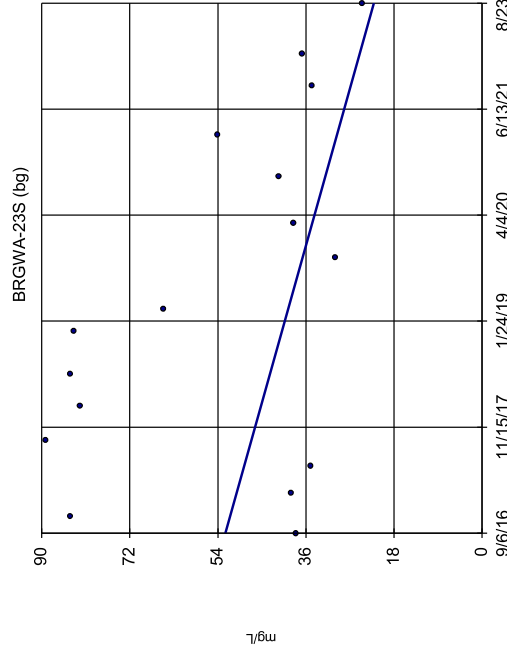
### Sen's Slope Estimator



n = 17  
 Slope = -0.1348  
 units per year.  
 Mann-Kendall  
 statistic = -81  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

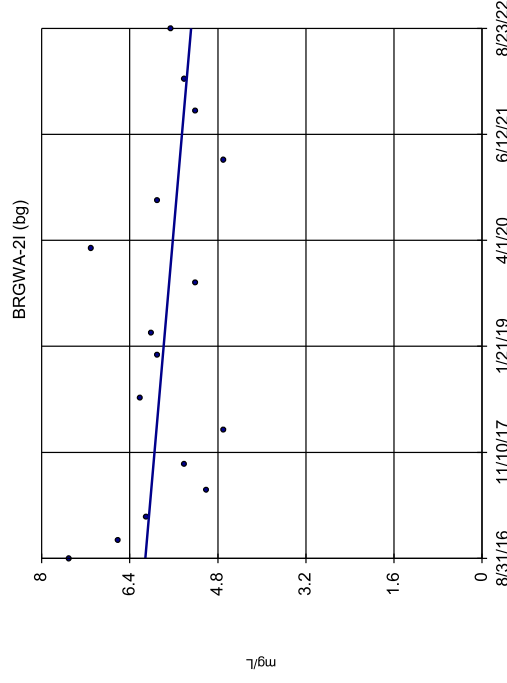
### Sen's Slope Estimator



n = 16  
 Slope = -5.093  
 units per year.  
 Mann-Kendall  
 statistic = -42  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

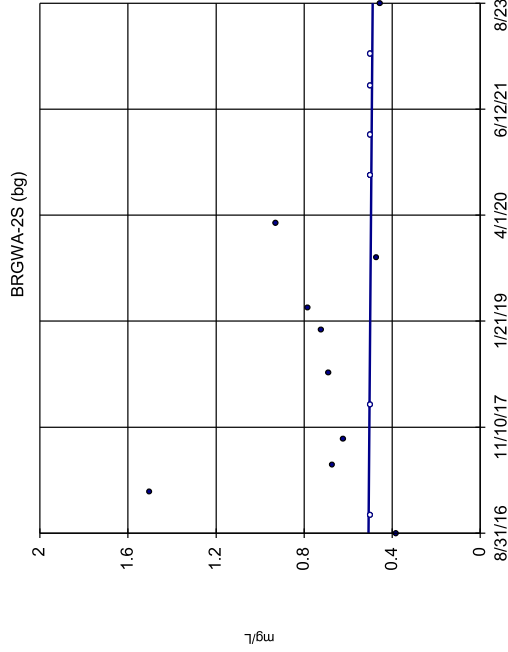


n = 16  
 Slope = -0.1382  
 units per year.  
 Mann-Kendall  
 statistic = -32  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

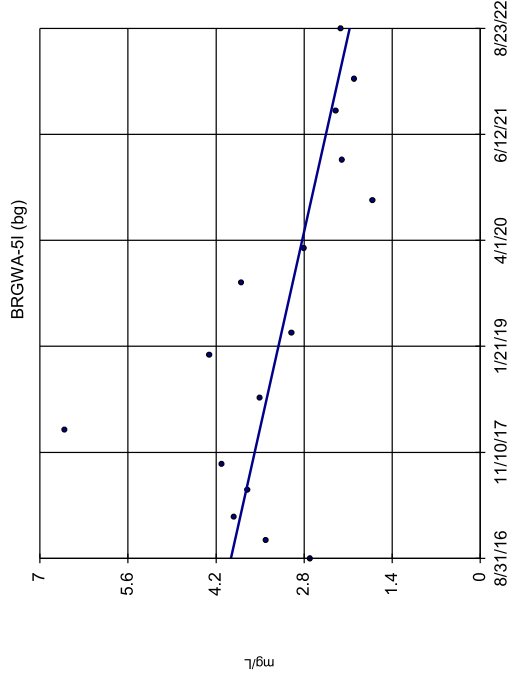


### Sen's Slope Estimator



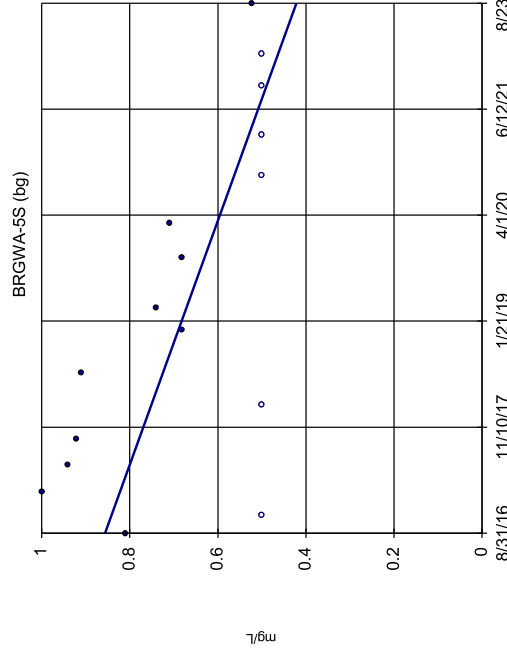
Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



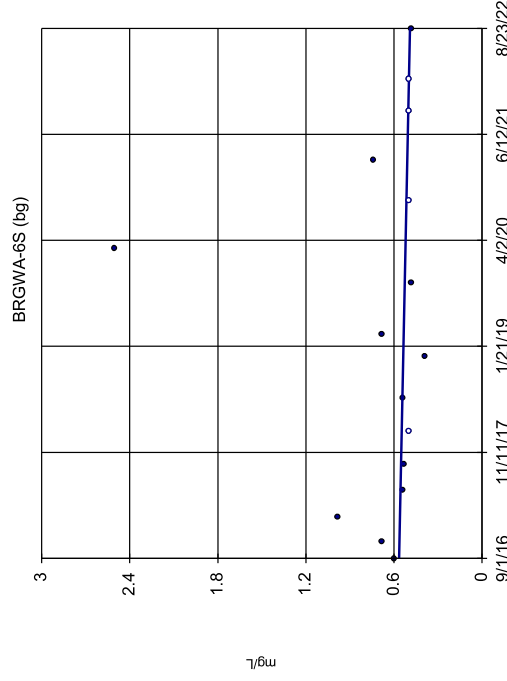
Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

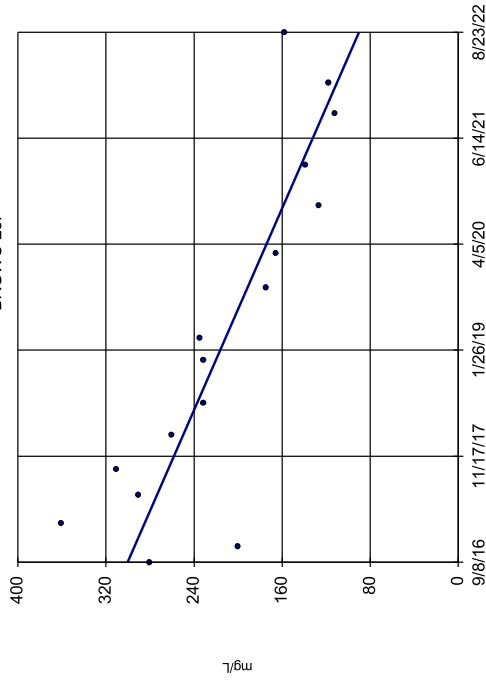
### Sen's Slope Estimator



Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-251

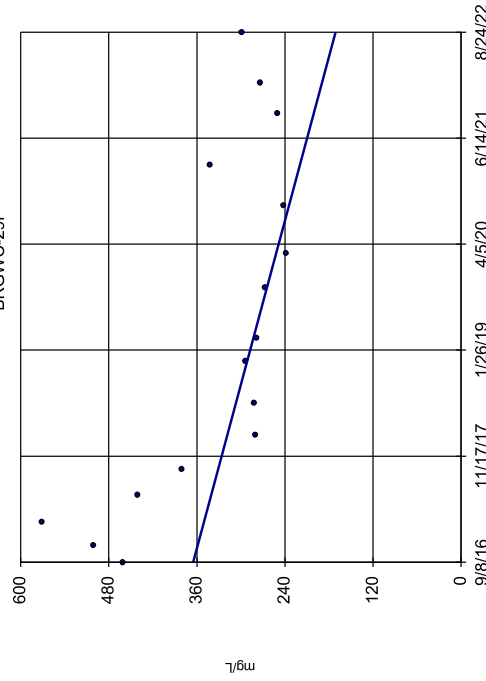


n = 16  
 Slope = -35.25  
 units per year.  
 Mann-Kendall  
 statistic = -81  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-291

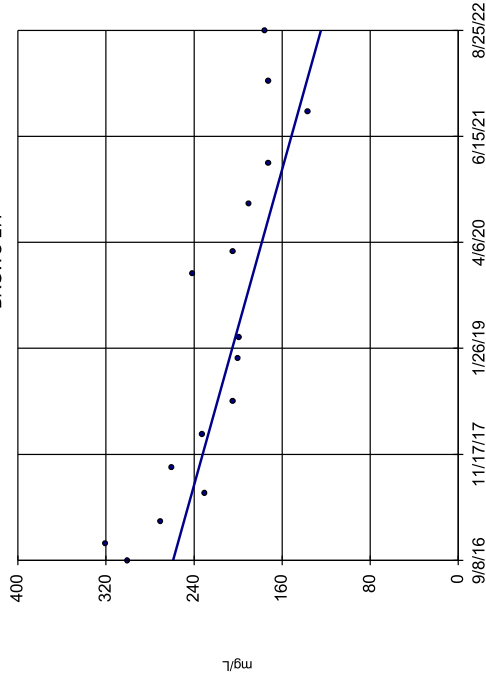


n = 16  
 Slope = -32.54  
 units per year.  
 Mann-Kendall  
 statistic = -62  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-271

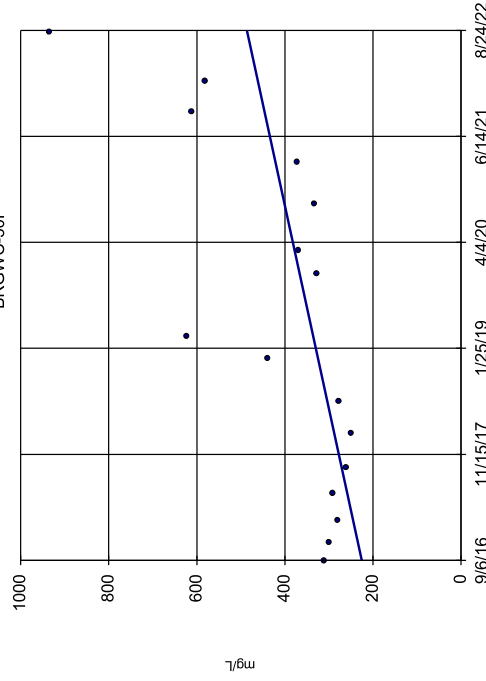


n = 16  
 Slope = 22.5  
 units per year.  
 Mann-Kendall  
 statistic = -90  
 critical = -58  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

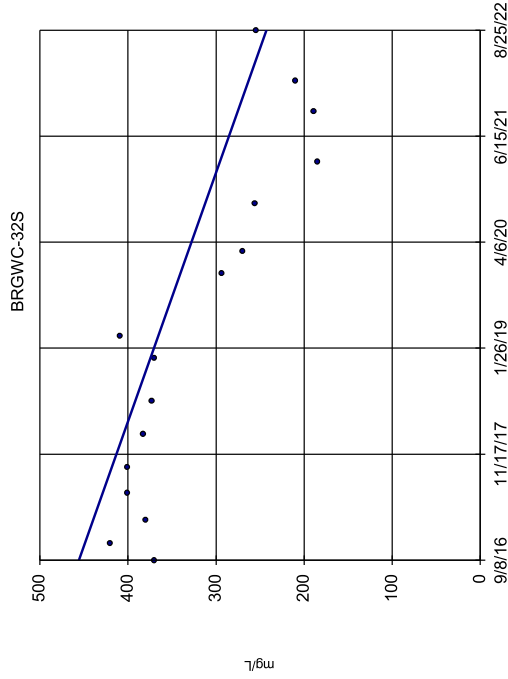
BRGWC-301



n = 16  
 Slope = 43.71  
 units per year.  
 Mann-Kendall  
 statistic = 60  
 critical = 58  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

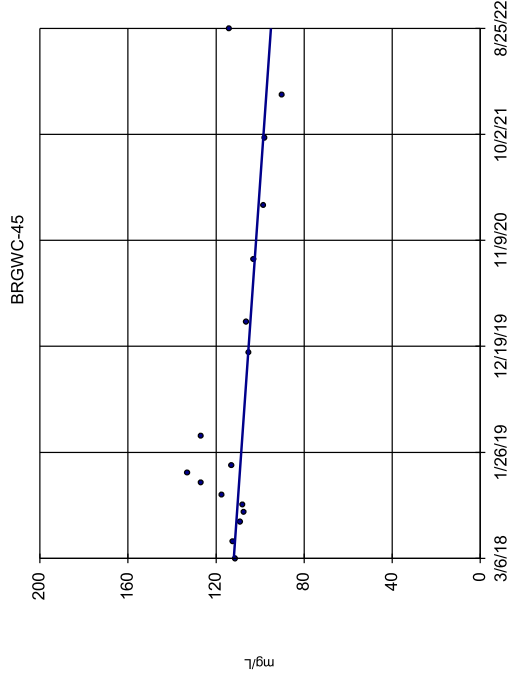
### Sen's Slope Estimator



n = 16  
 Slope = -35.7  
 units per year.  
 Mann-Kendall  
 statistic = -74  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

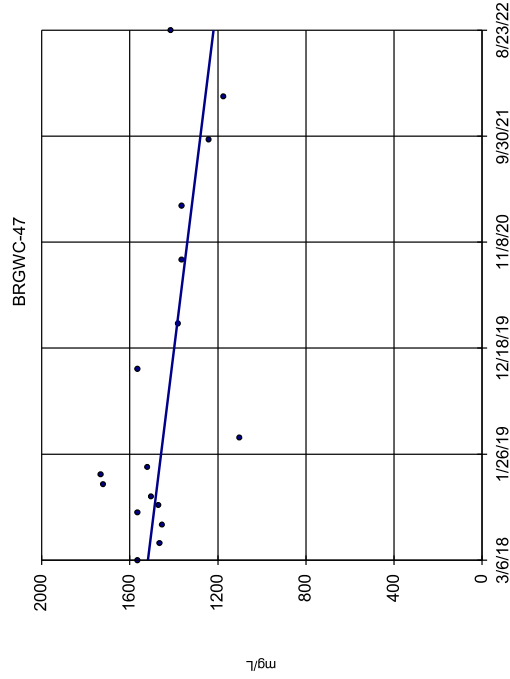
### Sen's Slope Estimator



n = 17  
 Slope = 3.782  
 units per year.  
 Mann-Kendall  
 statistic = 45  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

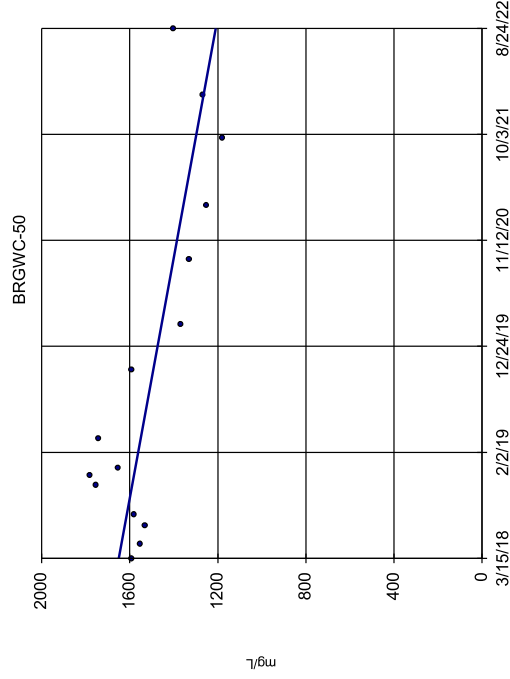
### Sen's Slope Estimator



n = 17  
 Slope = 66.51  
 units per year.  
 Mann-Kendall  
 statistic = 50  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

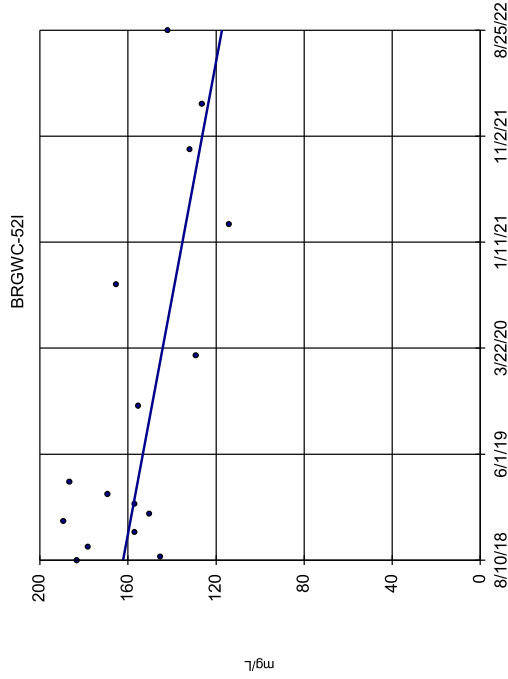
### Sen's Slope Estimator



n = 15  
 Slope = 99.04  
 units per year.  
 Mann-Kendall  
 statistic = 44  
 critical = 53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

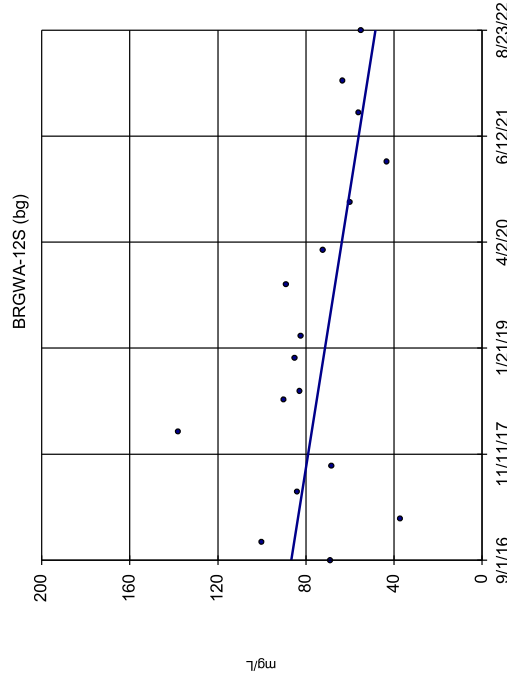
### Sen's Slope Estimator



n = 16  
 Slope = -11.11  
 units per year.  
 Mann-Kendall  
 statistic = -49  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

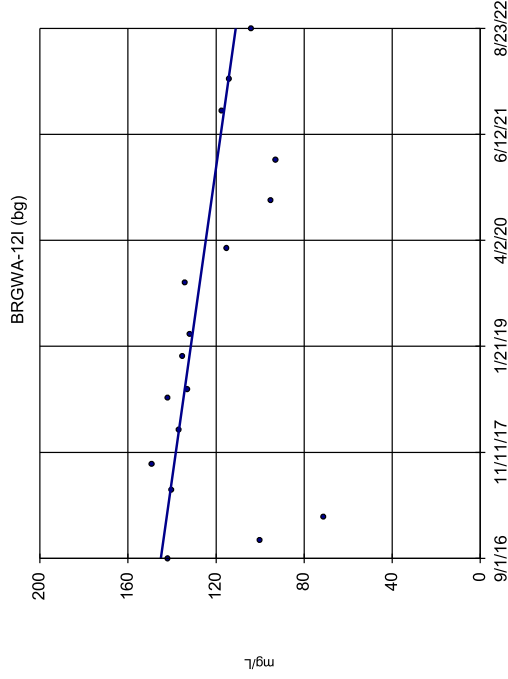
### Sen's Slope Estimator



n = 17  
 Slope = -6.383  
 units per year.  
 Mann-Kendall  
 statistic = -48  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

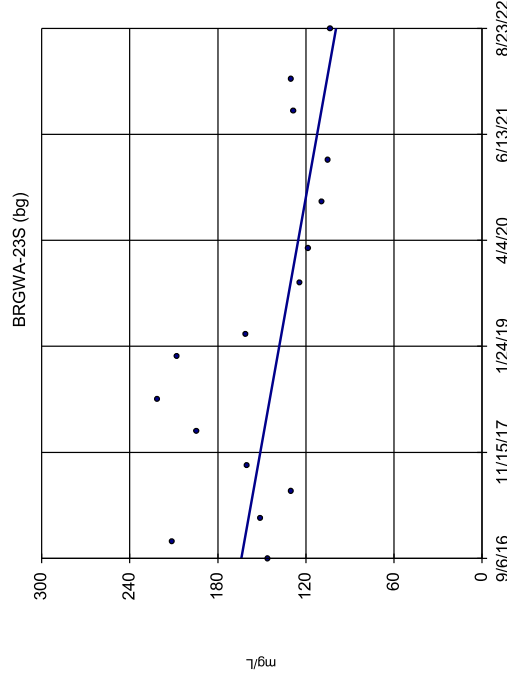
### Sen's Slope Estimator



n = 17  
 Slope = -5.702  
 units per year.  
 Mann-Kendall  
 statistic = -55  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

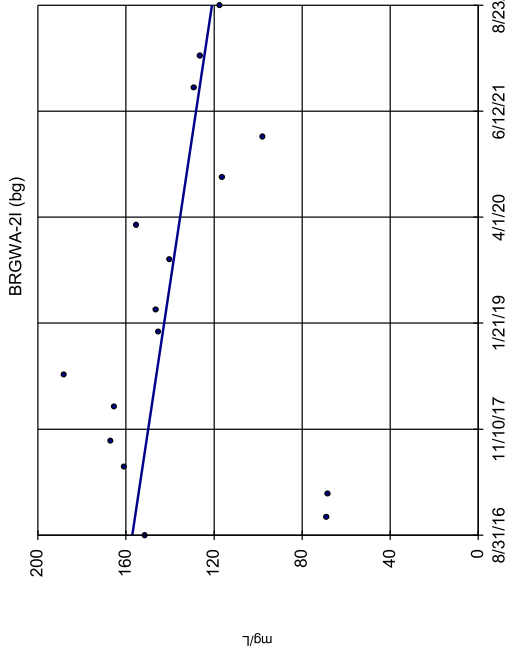
### Sen's Slope Estimator



n = 16  
 Slope = -10.83  
 units per year.  
 Mann-Kendall  
 statistic = -53  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

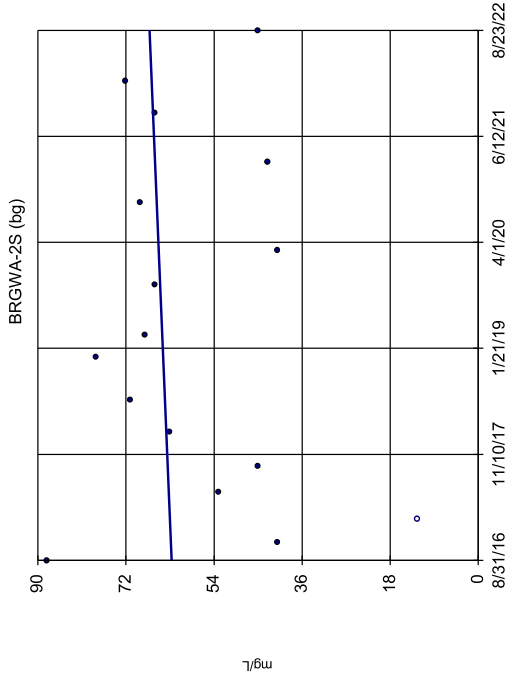
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



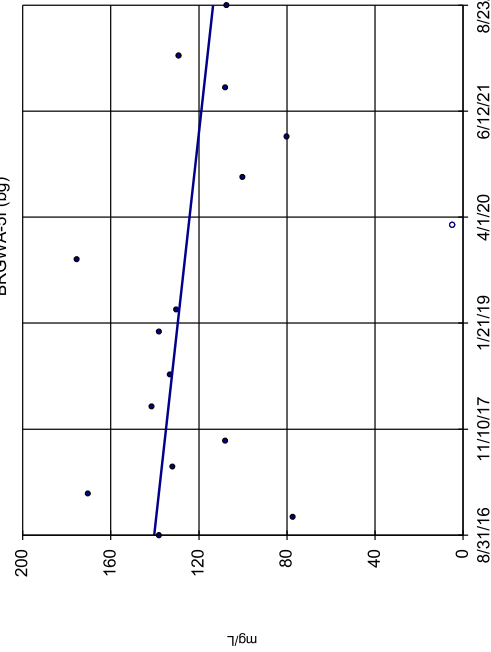
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



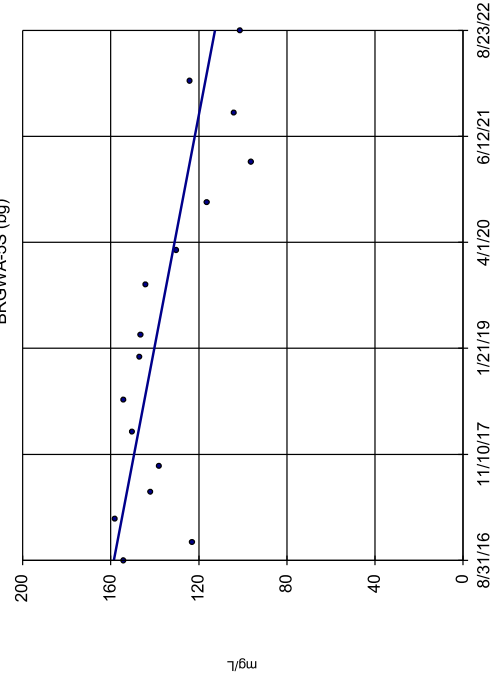
Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren Plant Branch Client: Southern Company Data: Plant Branch AP

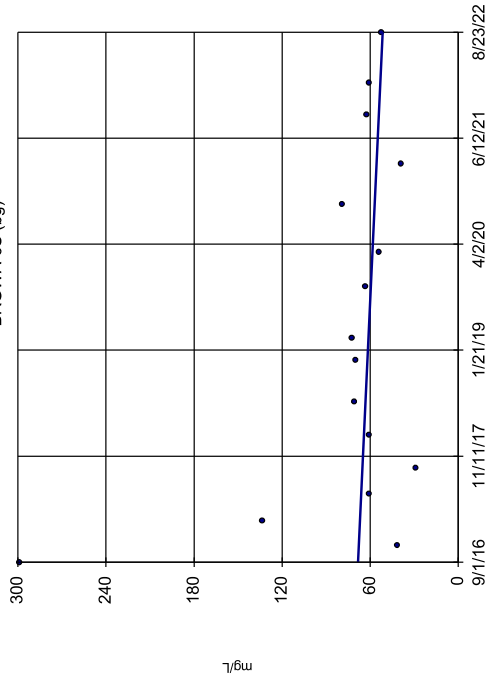
### Sen's Slope Estimator



Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

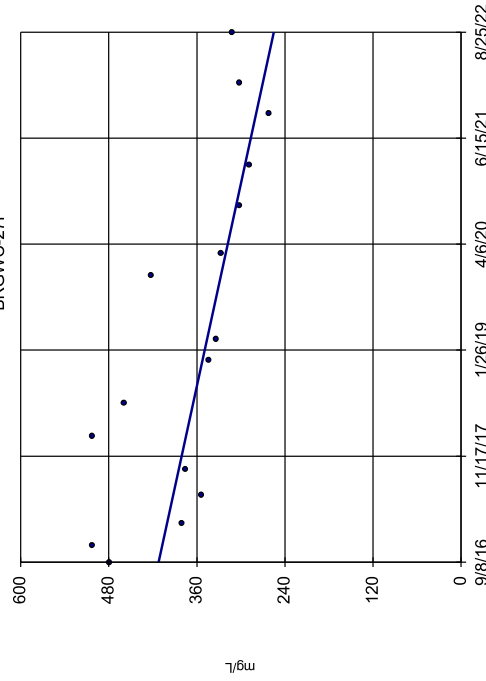


n = 16  
 Slope = -2.774  
 units per year.  
 Mann-Kendall  
 statistic = -23  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-271

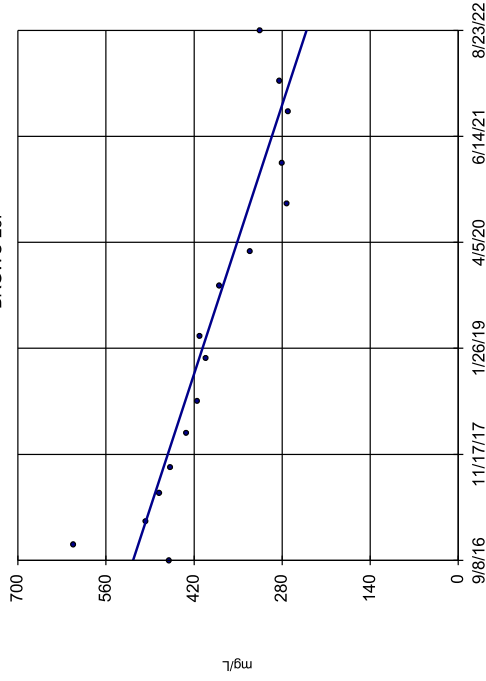


n = 16  
 Slope = -26.31  
 units per year.  
 Mann-Kendall  
 statistic = -78  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-251

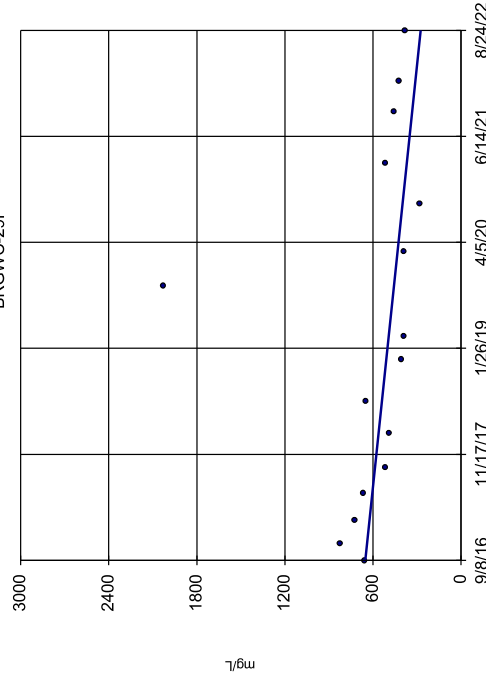


n = 16  
 Slope = -46.21  
 units per year.  
 Mann-Kendall  
 statistic = -96  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-291

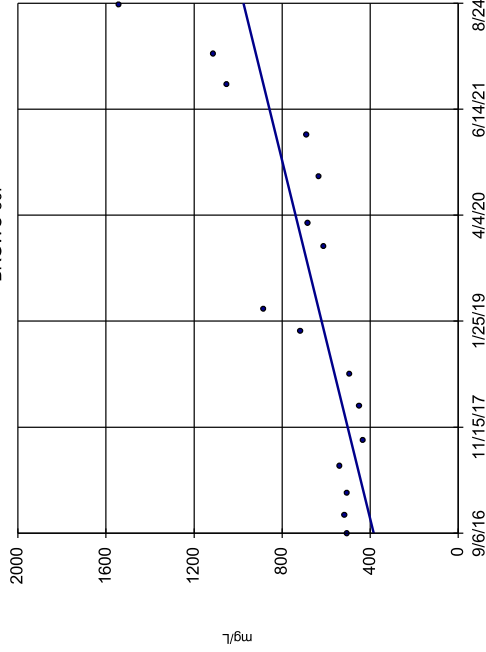


n = 16  
 Slope = -63.47  
 units per year.  
 Mann-Kendall  
 statistic = -63  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-301

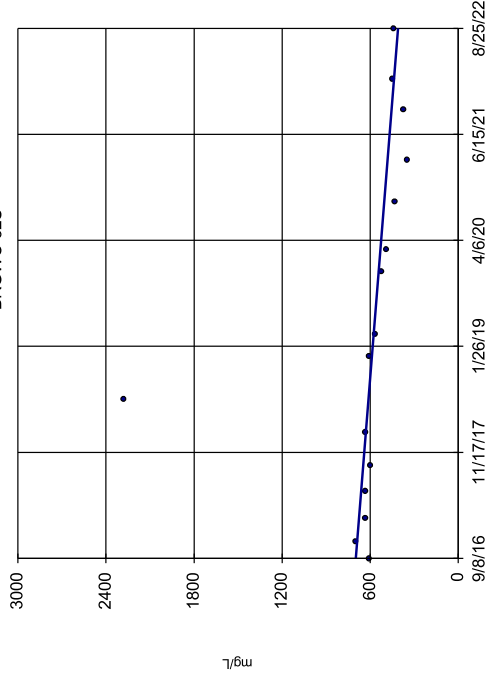


n = 16  
 Slope = 99.28  
 units per year.  
 Mann-Kendall  
 statistic = 74  
 critical = 58  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-32S

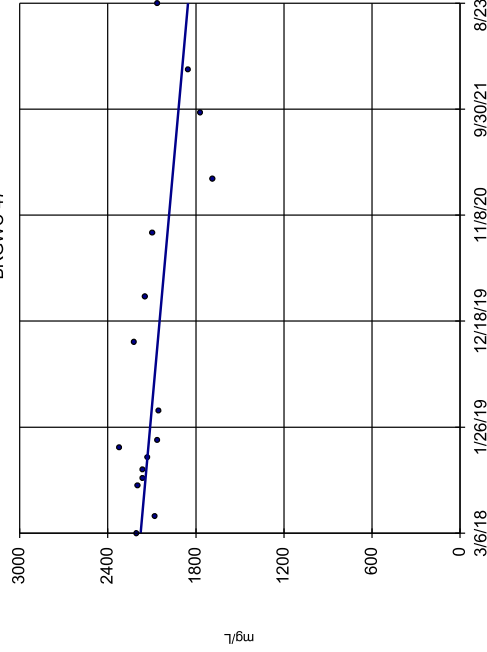


n = 16  
 Slope = -48.29  
 units per year.  
 Mann-Kendall  
 statistic = -81  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-47

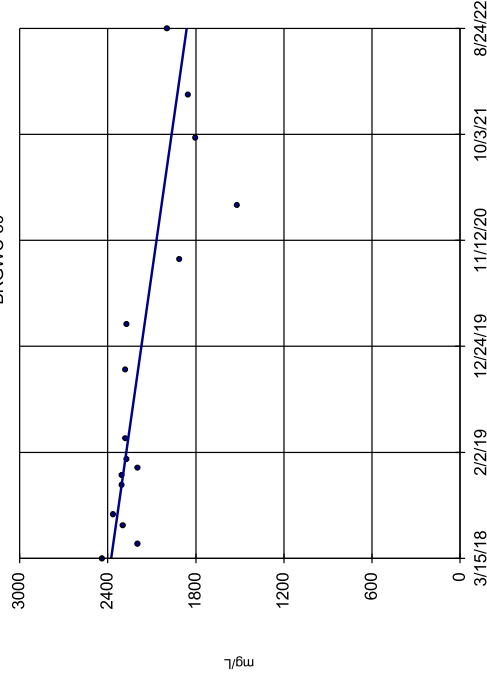


n = 16  
 Slope = 71.84  
 units per year.  
 Mann-Kendall  
 statistic = 54  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50



n = 16  
 Slope = -115.9  
 units per year.  
 Mann-Kendall  
 statistic = -68  
 critical = -58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 9/30/2022 4:42 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE F.



# Upper Tolerance Limit Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 3:54 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0241	n/a	n/a	n/a	n/a	136	n/a	n/a	82.35	n/a	n/a	0.0009341	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	136	n/a	n/a	75	n/a	n/a	0.0009341	NP Inter(NDs)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a	136	n/a	n/a	0	n/a	n/a	0.0009341	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a	136	n/a	n/a	100	n/a	n/a	0.0009341	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	138	n/a	n/a	98.55	n/a	n/a	0.0008431	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a	136	n/a	n/a	19.85	n/a	n/a	0.0009341	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0135	n/a	n/a	n/a	n/a	136	n/a	n/a	55.88	n/a	n/a	0.0009341	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.699	n/a	n/a	n/a	n/a	136	0.8071	0.474	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.42	n/a	n/a	n/a	n/a	144	n/a	n/a	53.47	n/a	n/a	0.0006197	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	136	n/a	n/a	86.76	n/a	n/a	0.0009341	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a	136	n/a	n/a	39.71	n/a	n/a	0.0009341	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a	120	n/a	n/a	87.5	n/a	n/a	0.002122	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a	133	n/a	n/a	77.44	n/a	n/a	0.00109	NP Inter(NDs)
Selenium (mg/L)	n/a	0.006	n/a	n/a	n/a	n/a	136	n/a	n/a	91.18	n/a	n/a	0.0009341	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	136	n/a	n/a	100	n/a	n/a	0.0009341	NP Inter(NDs)

FIGURE G.

PLANT BRANCH POND BCD GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.024	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.016	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.014	0.014
Combined Radium, Total (pCi/L)	5		1.7	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.089	0.089
Mercury, Total (mg/L)	0.002		0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.008	0.1
Selenium, Total (mg/L)	0.05		0.006	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

*\*Highlighted cells indicate Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residuals*

*\*GWPS = Groundwater Protection Standard*

FIGURE H.

# Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:03 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cadmium (mg/L)	BRGWC-50	0.03637	0.0123	0.005	Yes	17	0.02766	0.02475	0	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BRGWC-50	1.42	1.3	0.014	Yes	17	1.395	0.06615	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	PZ-511	0.0239	0.018	0.014	Yes	10	0.02239	0.006881	0	None	No	0.011	NP (normality)

# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-29I	0.003	0.0007	0.006	No	17	0.002865	0.0005578	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-30I	0.003	0.0013	0.006	No	17	0.0029	0.0004123	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.006	No	17	0.002906	0.0003881	94.12	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-45	0.003	0.0014	0.006	No	18	0.002447	0.0008933	61.11	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-47	0.003	0.00035	0.006	No	18	0.002853	0.0006246	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-50	0.003	0.00092	0.006	No	17	0.002579	0.0009413	82.35	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-52I	0.003	0.00091	0.006	No	17	0.002599	0.0008968	82.35	None	No	0.01	NP (NDs)
Antimony (mg/L)	PZ-50D	0.003	0.00056	0.006	No	4	0.00239	0.00122	75	None	No	0.0625	NP (NDs)
Antimony (mg/L)	PZ-51D	0.003	0.0013	0.006	No	4	0.002575	0.00085	75	None	No	0.0625	NP (NDs)
Antimony (mg/L)	PZ-51I	0.003	0.00079	0.006	No	8	0.002336	0.0009479	62.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	PZ-51S	0.003	0.00043	0.006	No	8	0.002529	0.0009463	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BRGWC-25I	0.005	0.00091	0.01	No	17	0.003985	0.001887	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-27I	0.005	0.0014	0.01	No	17	0.004065	0.001743	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-29I	0.005	0.0015	0.01	No	17	0.003447	0.001957	58.82	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-30I	0.005	0.00283	0.01	No	17	0.004611	0.001169	88.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	17	0.004737	0.001084	94.12	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-45	0.005	0.00096	0.01	No	18	0.003894	0.00186	72.22	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-47	0.005	0.0012	0.01	No	18	0.002951	0.001837	33.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-50	0.005	0.0025	0.01	No	17	0.004124	0.001675	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-52I	0.005	0.0026	0.01	No	17	0.003657	0.001473	41.18	None	No	0.01	NP (normality)
Arsenic (mg/L)	PZ-50D	0.002914	0.0000331	0.01	No	4	0.002355	0.001874	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51D	0.00374	0.0002464	0.01	No	4	0.002745	0.001689	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51I	0.005	0.00222	0.01	No	8	0.004652	0.0009829	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	PZ-51S	0.005	0.002	0.01	No	8	0.004625	0.001061	87.5	None	No	0.004	NP (NDs)
Barium (mg/L)	BRGWC-25I	0.03483	0.02632	2	No	17	0.03078	0.007065	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-27I	0.01685	0.015	2	No	17	0.01592	0.001471	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-29I	0.0192	0.0169	2	No	17	0.01805	0.001838	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-30I	0.02874	0.02236	2	No	17	0.02569	0.00533	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04195	0.02702	2	No	17	0.03449	0.01191	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-45	0.09373	0.07398	2	No	18	0.08386	0.01632	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-47	0.04274	0.03319	2	No	18	0.03797	0.007891	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-50	0.02107	0.01806	2	No	17	0.01956	0.002402	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-52I	0.02435	0.0161	2	No	17	0.02052	0.007012	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	PZ-50D	0.05003	0.01782	2	No	4	0.03393	0.007091	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51D	0.08	0.057	2	No	4	0.0631	0.01129	0	None	No	0.0625	NP (normality)
Barium (mg/L)	PZ-51I	0.01626	0.01359	2	No	8	0.01493	0.00126	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51S	0.03466	0.02467	2	No	8	0.02966	0.004711	0	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-27I	0.0005	0.0001	0.004	No	18	0.0002352	0.0001743	27.78	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-29I	0.001026	0.00074	0.004	No	17	0.0008832	0.0002286	5.882	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-45	0.0005	0.000079	0.004	No	19	0.0004539	0.0001381	89.47	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-47	0.0005	0.000056	0.004	No	18	0.0004254	0.0001716	83.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-50	0.005518	0.002801	0.004	No	17	0.004159	0.002169	11.76	None	No	0.01	Param.
Beryllium (mg/L)	PZ-50D	0.0004024	-0.00007439	0.004	No	4	0.000332	0.0002121	50	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	PZ-51I	0.0005	0.000064	0.004	No	8	0.0001845	0.0001951	25	None	No	0.004	NP (normality)
Cadmium (mg/L)	BRGWC-27I	0.001	0.00009	0.005	No	18	0.0008978	0.0002975	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-30I	0.001	0.00014	0.005	No	18	0.0009011	0.000288	88.89	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-32S	0.001	0.00011	0.005	No	18	0.0008494	0.0003465	83.33	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-45	0.001	0.0002	0.005	No	19	0.0008183	0.0003619	78.95	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-47	0.001	0.00015	0.005	No	18	0.0005406	0.0004238	44.44	None	No	0.01	NP (normality)
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>0.03637</b>	<b>0.0123</b>	<b>0.005</b>	<b>Yes</b>	<b>17</b>	<b>0.02766</b>	<b>0.02475</b>	<b>0</b>	<b>None</b>	<b>x^(1/3)</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-51I	0.01225	0.001149	0.005	No	10	0.007311	0.01016	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	BRGWC-25I	0.01	0.0016	0.1	No	17	0.008975	0.002895	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-27I	0.01	0.003	0.1	No	17	0.009059	0.00268	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-29I	0.02	0.01	0.1	No	17	0.01059	0.002425	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-30I	0.014	0.0051	0.1	No	17	0.009947	0.00158	88.24	None	No	0.01	NP (NDs)

# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	BRGWC-32S	0.01	0.0012	0.1	No	17	0.004629	0.004109	35.29	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-45	0.01	0.0014	0.1	No	18	0.008496	0.003464	83.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-47	0.01	0.0018	0.1	No	18	0.008008	0.003841	77.78	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-50	0.01	0.00098	0.1	No	17	0.006514	0.004389	58.82	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-52I	0.01	0.0017	0.1	No	17	0.009512	0.002013	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	PZ-51I	0.01	0.0008	0.1	No	8	0.007722	0.004217	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	PZ-51S	0.01	0.00042	0.1	No	8	0.007631	0.004386	75	None	No	0.004	NP (NDs)
Cobalt (mg/L)	BRGWC-25I	0.006497	0.003517	0.014	No	17	0.005007	0.002378	5.882	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-27I	0.01062	0.007739	0.014	No	18	0.009178	0.002378	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-29I	0.009914	0.006062	0.014	No	17	0.007988	0.003074	5.882	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-30I	0.00119	0.0007782	0.014	No	18	0.001106	0.0003155	16.67	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BRGWC-32S	0.0025	0.001	0.014	No	18	0.001083	0.0003536	88.89	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-45	0.015	0.0054	0.014	No	19	0.01238	0.01443	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-47	0.001751	0.0004698	0.014	No	18	0.002175	0.003099	22.22	Kaplan-Meier	ln(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>BRGWC-50</b>	<b>1.42</b>	<b>1.3</b>	<b>0.014</b>	<b>Yes</b>	<b>17</b>	<b>1.395</b>	<b>0.06615</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Cobalt (mg/L)	BRGWC-52I	0.0015	0.00063	0.014	No	17	0.001382	0.000966	58.82	None	No	0.01	NP (NDs)
Cobalt (mg/L)	PZ-50D	0.5119	-0.1865	0.014	No	5	0.1627	0.2084	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-51D	0.0004605	0.0002954	0.014	No	5	0.0006232	0.0003464	40	Kaplan-Meier	ln(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>PZ-51I</b>	<b>0.0239</b>	<b>0.018</b>	<b>0.014</b>	<b>Yes</b>	<b>10</b>	<b>0.02239</b>	<b>0.006881</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.011</b>	<b>NP (normality)</b>
Cobalt (mg/L)	PZ-51S	0.007228	0.002645	0.014	No	9	0.004937	0.002373	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-25I	1.536	0.5768	5	No	17	1.137	0.9613	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-27I	1.415	0.5721	5	No	17	1.059	0.798	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-29I	1.648	1.18	5	No	17	1.414	0.3731	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-30I	1.353	0.6195	5	No	17	1.036	0.6789	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.079	0.468	5	No	17	0.7737	0.4878	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-45	0.8864	0.3806	5	No	18	0.6335	0.4179	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-47	1.593	0.716	5	No	18	1.223	0.8064	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-50	1.957	1.264	5	No	17	1.611	0.5523	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-52I	2.558	1.453	5	No	17	2.06	0.9825	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-50D	3.133	0.07744	5	No	4	1.605	0.6728	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51D	3.894	1.101	5	No	4	2.498	0.6152	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51I	11.7	0.625	5	No	8	2.451	3.764	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-51S	17.1	0.00107	5	No	8	2.786	5.805	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	BRGWC-25I	0.27	0.14	4	No	18	0.2081	0.1353	5.556	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-27I	0.2596	0.1546	4	No	18	0.2071	0.08675	11.11	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-29I	0.37	0.085	4	No	18	0.1734	0.1234	11.11	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-30I	0.3461	0.1334	4	No	18	0.2594	0.215	5.556	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.11	0.09	4	No	18	0.1077	0.03756	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-45	0.166	0.067	4	No	19	0.1764	0.2312	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-47	0.34	0.076	4	No	19	0.2334	0.257	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-50	0.8057	0.3536	4	No	18	0.6159	0.4444	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-52I	0.2297	0.1292	4	No	17	0.1795	0.08022	5.882	None	No	0.01	Param.
Fluoride (mg/L)	PZ-50D	0.2794	0.04298	4	No	5	0.1612	0.07055	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51D	0.3329	0.2023	4	No	5	0.2676	0.03897	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51I	0.148	0.061	4	No	9	0.101	0.02184	77.78	None	No	0.002	NP (NDs)
Fluoride (mg/L)	PZ-51S	0.1175	0.05175	4	No	8	0.08463	0.03101	0	None	No	0.01	Param.
Lead (mg/L)	BRGWC-25I	0.002	0.00011	0.015	No	17	0.001889	0.0004584	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-27I	0.002	0.000063	0.015	No	17	0.001886	0.0004698	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-29I	0.0006	0.00029	0.015	No	16	0.0006819	0.0006628	18.75	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-30I	0.002	0.00011	0.015	No	17	0.001889	0.0004584	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-45	0.002	0.00026	0.015	No	18	0.001696	0.0007011	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-47	0.002	0.00012	0.015	No	18	0.00168	0.0007372	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-50	0.002	0.0001	0.015	No	17	0.001144	0.000942	52.94	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-52I	0.002	0.000042	0.015	No	17	0.001885	0.0004749	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	PZ-50D	0.002	0.000056	0.015	No	4	0.001514	0.000972	75	None	No	0.0625	NP (NDs)

# Confidence Intervals - All Results

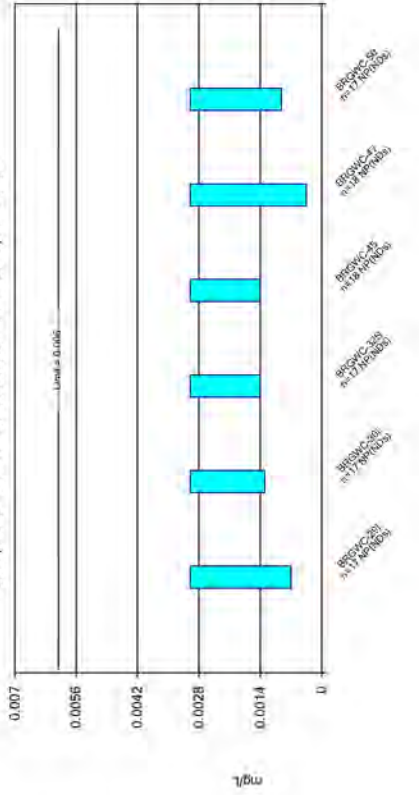
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/4/2022, 7:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	PZ-51D	0.002	0.00013	0.015	No	4	0.001533	0.000935	75	None	No	0.0625	NP (NDs)
Lead (mg/L)	PZ-51I	0.002	0.00017	0.015	No	8	0.001566	0.0008048	75	None	No	0.004	NP (NDs)
Lithium (mg/L)	BRGWC-27I	0.0021	0.0012	0.089	No	17	0.002106	0.001405	17.65	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-29I	0.003608	0.00302	0.089	No	17	0.003314	0.0004687	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-30I	0.01735	0.01219	0.089	No	17	0.01493	0.004314	0	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	BRGWC-32S	0.0035	0.0021	0.089	No	17	0.002688	0.001061	11.76	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-45	0.003728	0.002896	0.089	No	17	0.003312	0.0006642	5.882	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-47	0.04413	0.04074	0.089	No	18	0.04243	0.002802	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-50	0.0439	0.03831	0.089	No	17	0.04111	0.004465	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-52I	0.006682	0.003294	0.089	No	17	0.005294	0.003416	5.882	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	PZ-50D	0.02921	0.01504	0.089	No	4	0.02213	0.003119	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-51D	0.0096	0.0042	0.089	No	4	0.008175	0.002654	0	None	No	0.0625	NP (normality)
Lithium (mg/L)	PZ-51I	0.026	0.019	0.089	No	8	0.0209	0.002371	0	None	No	0.004	NP (normality)
Lithium (mg/L)	PZ-51S	0.005	0.0012	0.089	No	8	0.004525	0.001344	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BRGWC-25I	0.0002	0.000083	0.002	No	15	0.0001815	0.00004941	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-27I	0.0002	0.00005	0.002	No	15	0.0001798	0.00005331	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-29I	0.0002	0.000098	0.002	No	15	0.0001739	0.0000552	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-30I	0.0002	0.000082	0.002	No	15	0.0001728	0.0000569	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0002	0.0001	0.002	No	15	0.0001781	0.0000454	80	None	No	0.01	NP (NDs)
Mercury (mg/L)	PZ-51I	0.0002	0.000099	0.002	No	8	0.0001874	0.00003571	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BRGWC-25I	0.00105	0.00089	0.1	No	16	0.0009781	0.00007876	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-30I	0.0012	0.001	0.1	No	16	0.001099	0.0003203	68.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-45	0.001	0.00076	0.1	No	17	0.000952	0.0001479	88.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-47	0.001	0.000296	0.1	No	17	0.0009586	0.0001707	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-50	0.0022	0.001	0.1	No	16	0.001219	0.0006306	87.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-52I	0.005	0.001	0.1	No	16	0.002117	0.002007	43.75	None	No	0.01	NP (normality)
Molybdenum (mg/L)	PZ-50D	0.002584	0.0004608	0.1	No	4	0.001523	0.0004676	0	None	No	0.01	Param.
Molybdenum (mg/L)	PZ-51D	0.009763	0.0001132	0.1	No	4	0.003278	0.002415	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	PZ-51I	0.001	0.000313	0.1	No	8	0.0009141	0.0002429	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BRGWC-25I	0.005	0.0021	0.05	No	17	0.004829	0.0007034	94.12	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-27I	0.005	0.0025	0.05	No	17	0.003841	0.001247	35.29	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-29I	0.005	0.0042	0.05	No	17	0.004829	0.001348	52.94	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-30I	0.005	0.0045	0.05	No	17	0.004618	0.0008662	76.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-32S	0.13	0.0019	0.05	No	18	0.07245	0.07317	22.22	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-45	0.005	0.0029	0.05	No	18	0.004883	0.000495	94.44	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-47	0.005	0.002	0.05	No	18	0.003978	0.001509	66.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-50	0.005	0.002	0.05	No	17	0.003704	0.00139	47.06	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-29I	0.002	0.00016	0.002	No	17	0.0006071	0.0007966	23.53	None	No	0.01	NP (normality)



### Non-Parametric Confidence Interval

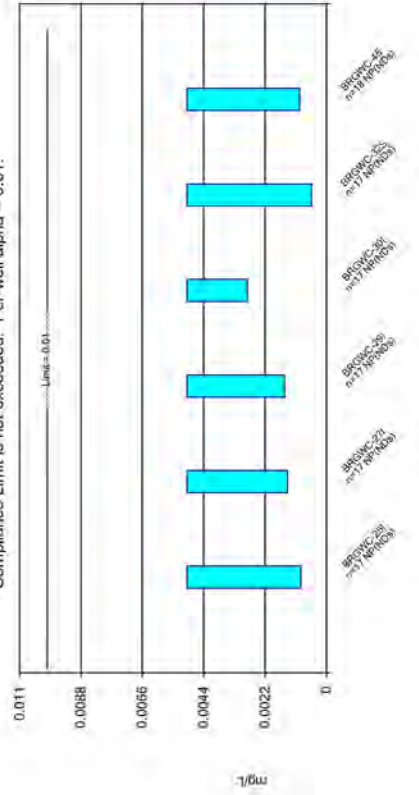
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

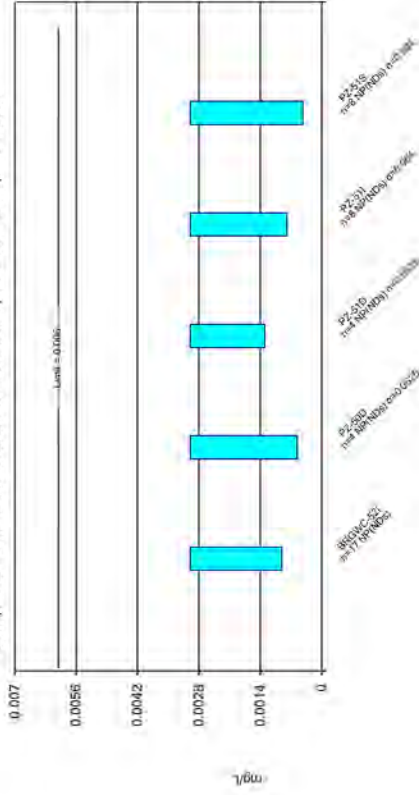
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Constituent: Arsenic Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

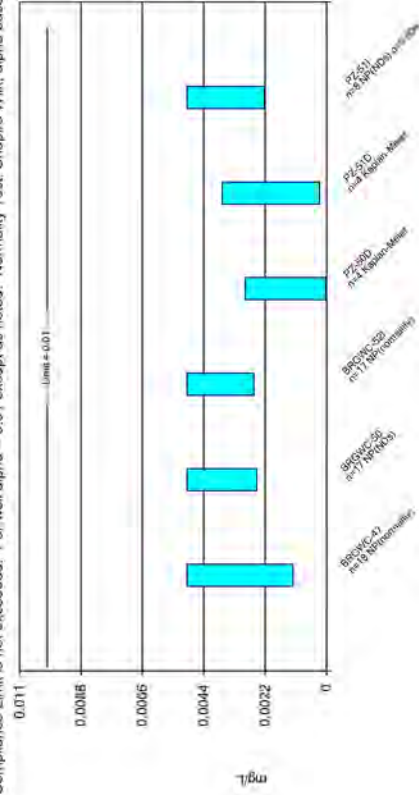
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Constituent: Antimony Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

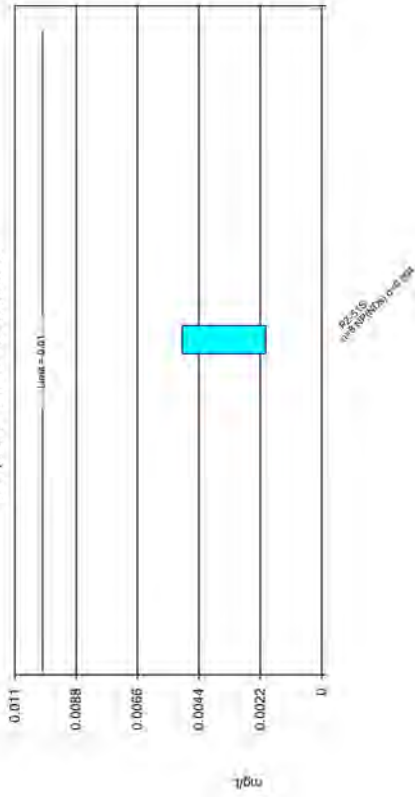
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

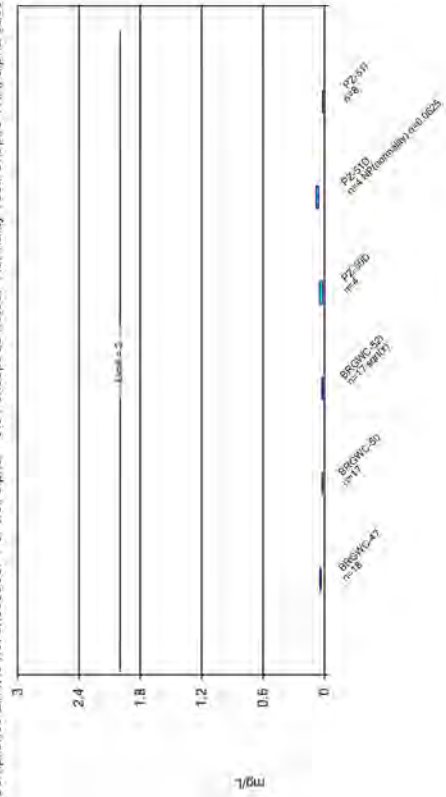
Compliance Limit is not exceeded. Limit = 0.01.



Constituent: Arsenic Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

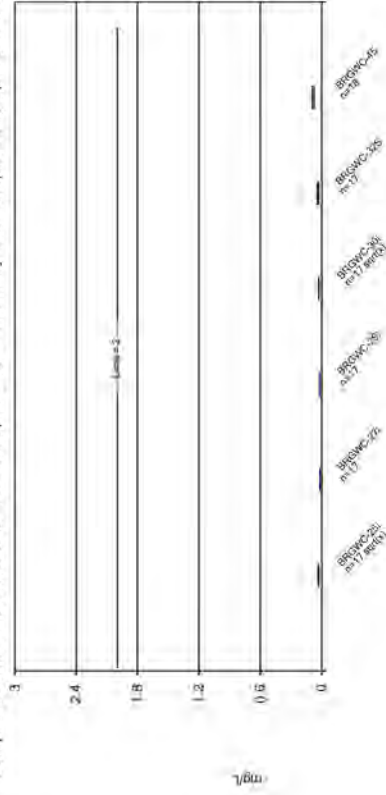
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

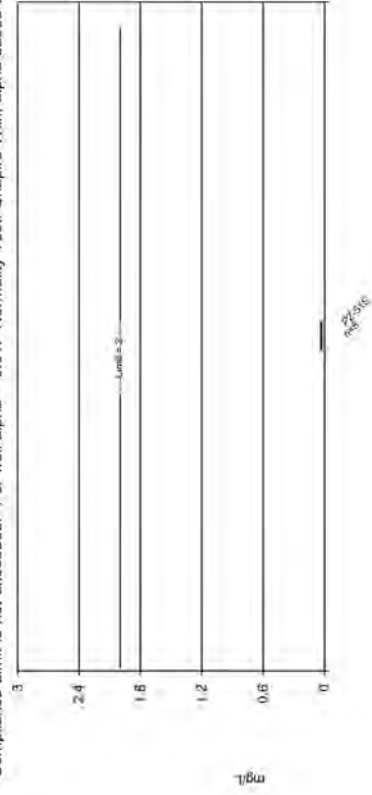
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

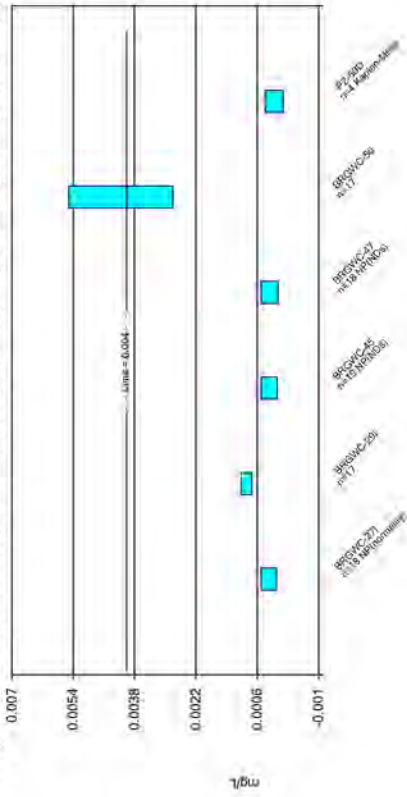
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

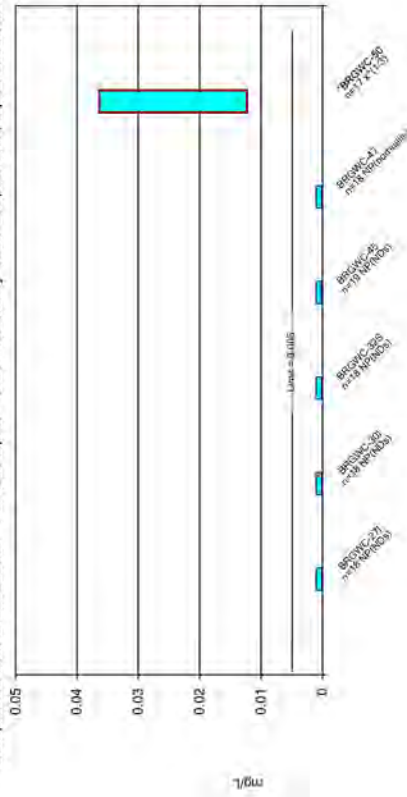
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

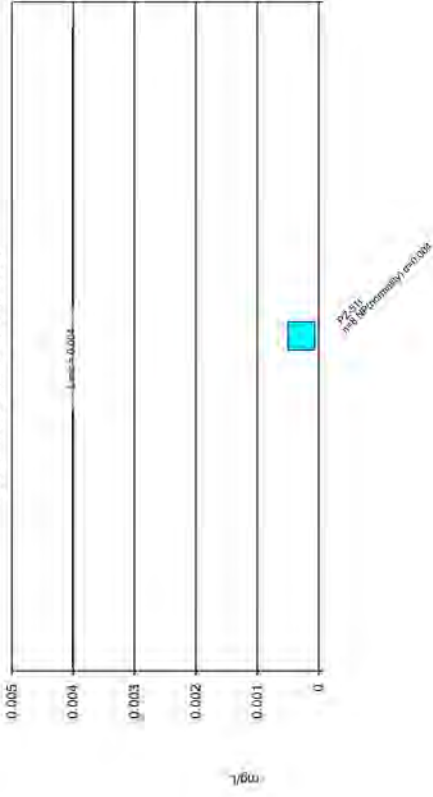
Compliance limit is exceeded. \* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

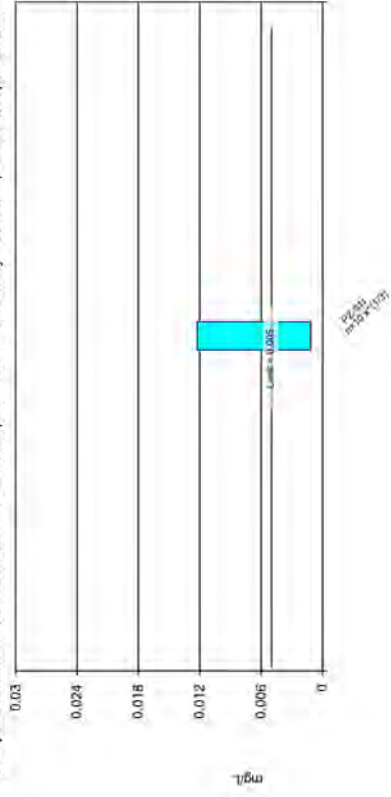
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

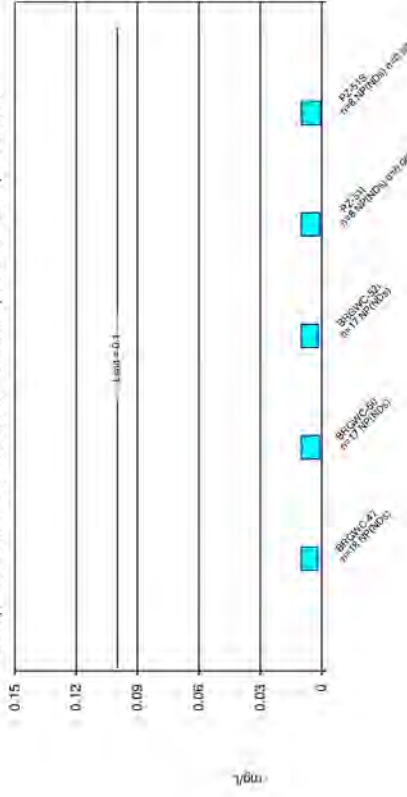
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

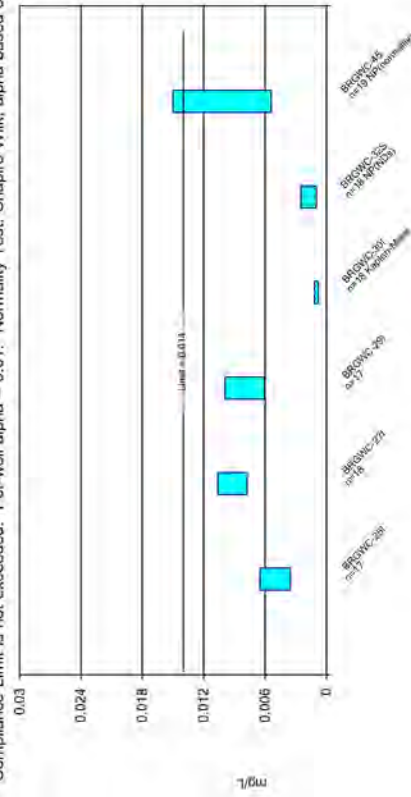
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

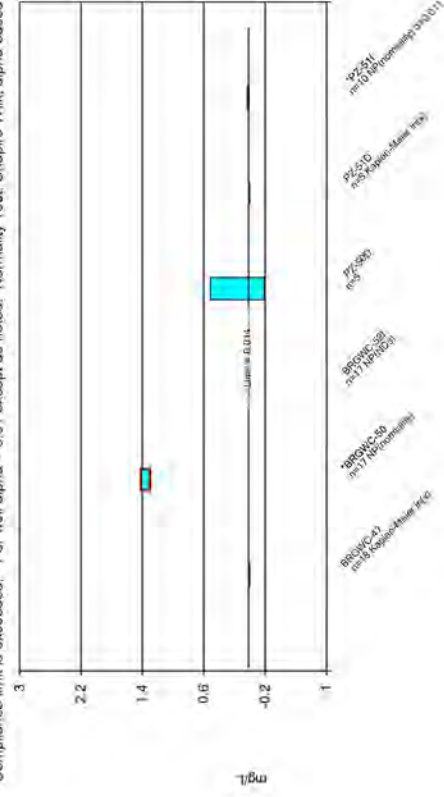
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

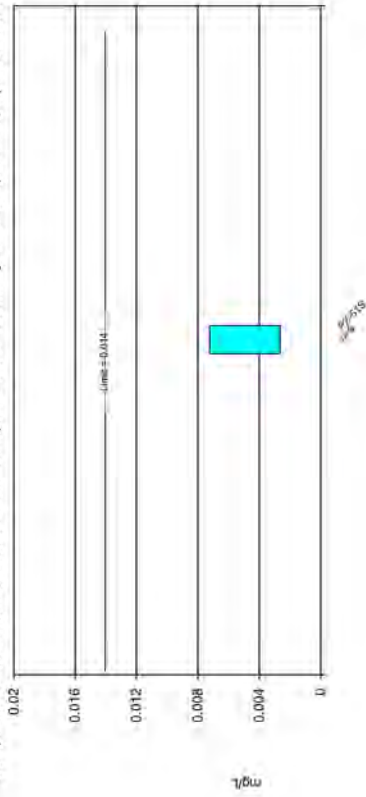


Constituent: Cobalt Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals Plant Branch Client: Southern Company Data: Plant Branch AP



### Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

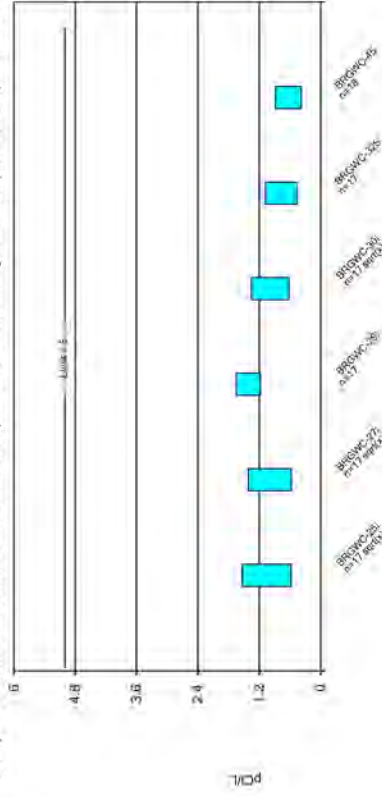
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

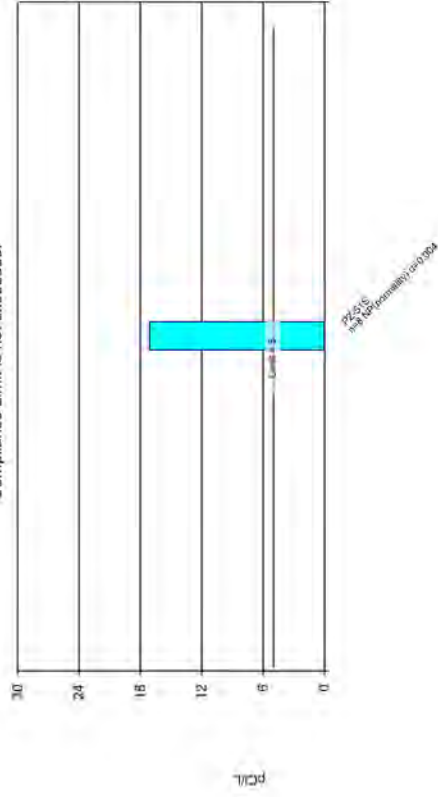
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

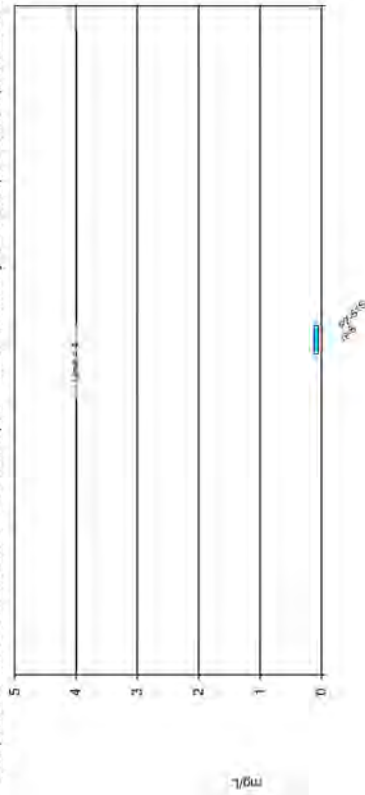
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

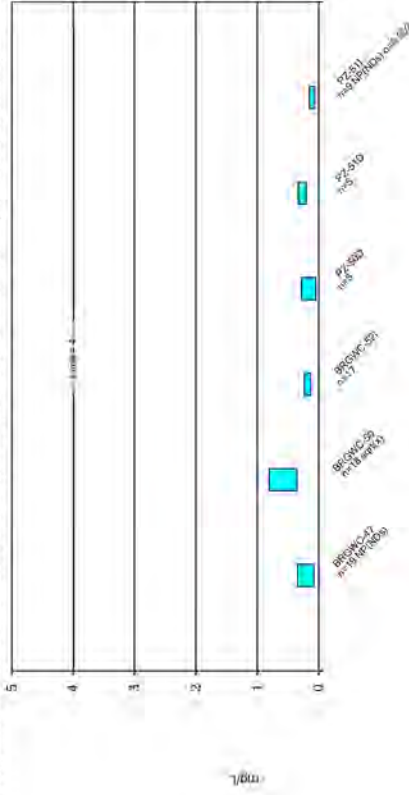
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

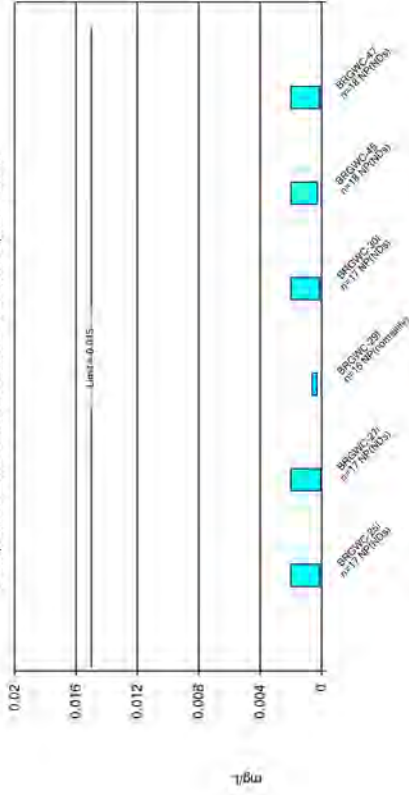
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

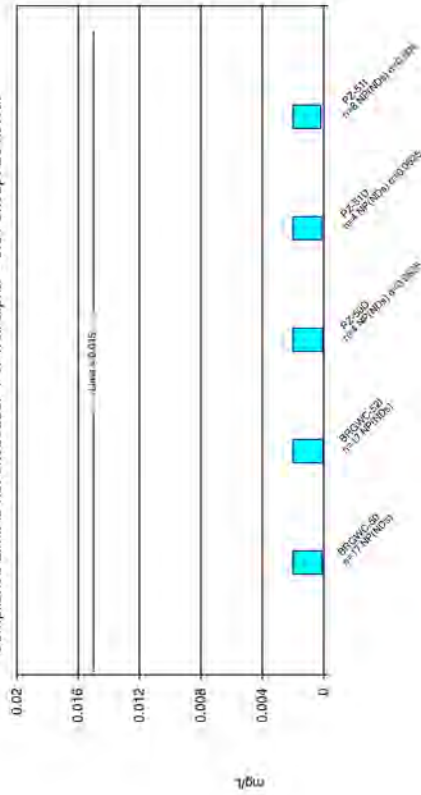
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

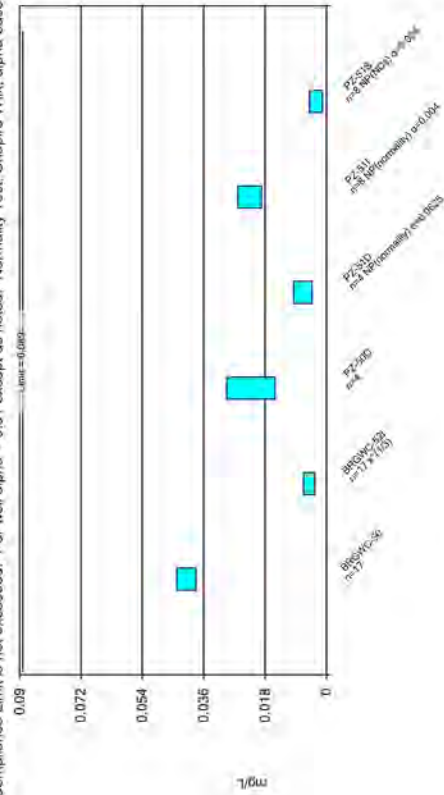
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

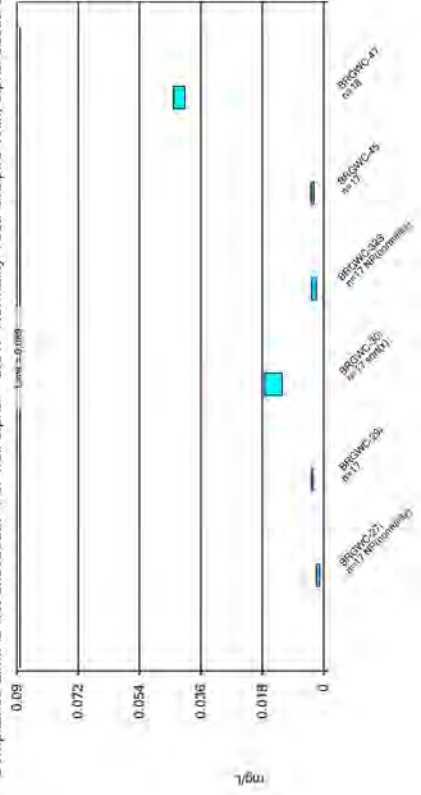
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

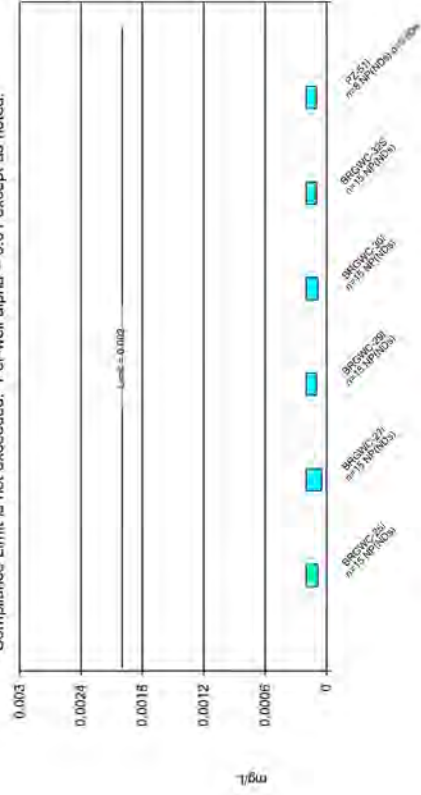
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

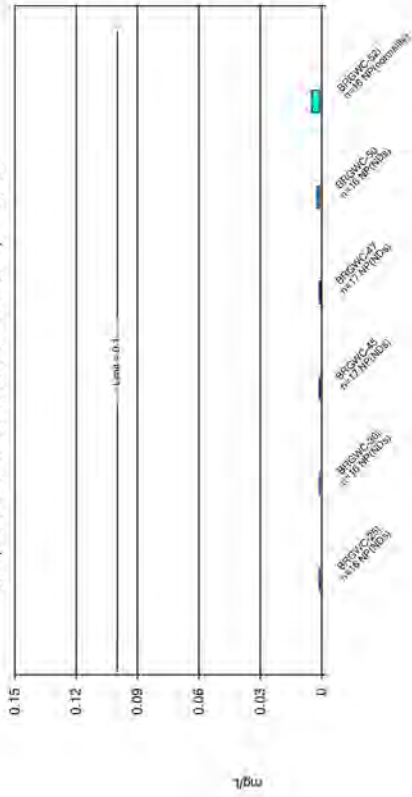
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

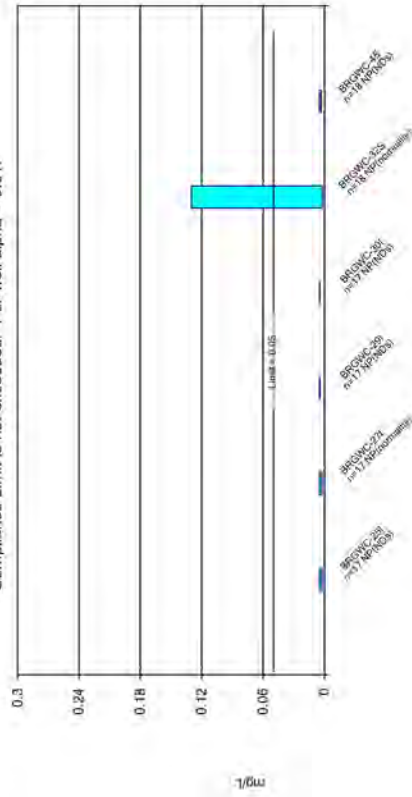
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Int  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

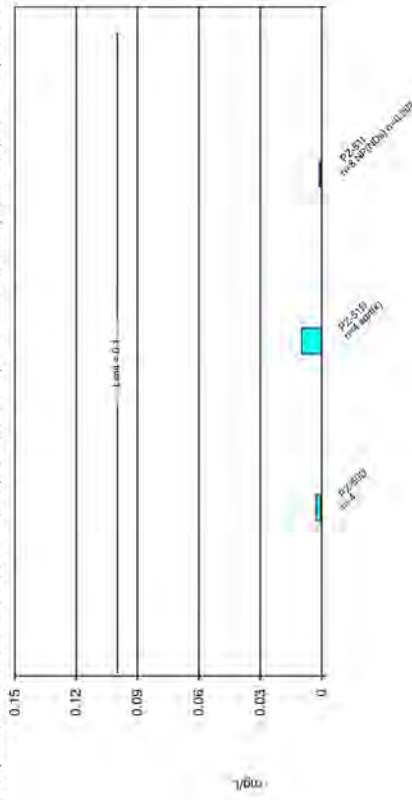
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Int  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

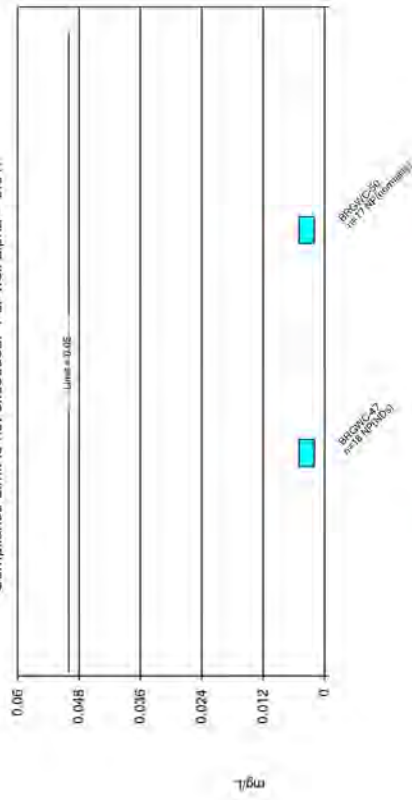
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Int  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

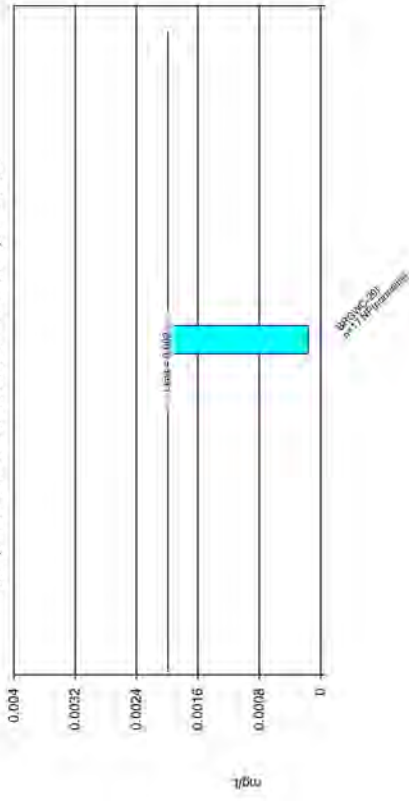


Constituent: Selenium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Int  
Plant Branch Client: Southern Company Data: Plant Branch AP



### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thiallium Analysis Run 11/4/2022 3:59 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50
9/6/2016		<0.003				
9/8/2016	<0.003		<0.003			
11/21/2016	<0.003	<0.003	<0.003			
2/22/2017	<0.003	<0.003	<0.003			
6/14/2017	0.0007 (J)	<0.003	<0.003			
9/27/2017	<0.003	<0.003	<0.003			
2/14/2018	<0.003	<0.003	<0.003			
3/6/2018				<0.003	<0.003	
3/15/2018						<0.003
5/1/2018				<0.003	<0.003 (D)	<0.003
6/27/2018	<0.003		<0.003		<0.003	
6/28/2018		<0.003		<0.003		<0.003
7/31/2018				<0.003		
8/1/2018					<0.003	<0.003
8/23/2018				<0.003	<0.003	
9/19/2018				<0.003	<0.003	
10/29/2018				<0.003	<0.003	<0.003
11/28/2018				<0.003	<0.003	<0.003
12/18/2018	<0.003	<0.003				
12/19/2018			<0.003		<0.003	<0.003
12/20/2018				0.0024 (J)		
1/16/2019						<0.003
8/27/2019		<0.003	<0.003			
8/28/2019	<0.003			0.00046 (J)	<0.003	
8/29/2019						0.00052 (J)
10/16/2019	<0.003				<0.003	<0.003
12/3/2019				0.00088 (J)		
12/4/2019		<0.003	<0.003			
3/4/2020	<0.003				<0.003	<0.003
3/5/2020		<0.003	0.0014 (J)	0.0016 (J)		
8/19/2020	<0.003	<0.003	<0.003			
8/20/2020				0.0031	<0.003	<0.003
9/15/2020	<0.003					
9/16/2020		<0.003	<0.003	0.0012 (J)	0.00035 (J)	
9/17/2020						0.00041 (J)
3/2/2021				0.0014 (J)	<0.003	
3/3/2021	<0.003	<0.003				
3/4/2021			<0.003			0.00092 (J)
9/23/2021				<0.003	<0.003	
9/27/2021						<0.003
9/28/2021	<0.003	<0.003	<0.003			
2/2/2022		0.0013 (J)	<0.003	<0.003	<0.003	
2/3/2022	<0.003					<0.003
8/23/2022					<0.003	
8/24/2022	<0.003	<0.003				<0.003
8/25/2022			<0.003	<0.003		
Mean	0.002865	0.0029	0.002906	0.002447	0.002853	0.002579
Std. Dev.	0.0005578	0.0004123	0.0003881	0.0008933	0.0006246	0.0009413
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0007	0.0013	0.0014	0.0014	0.00035	0.00092

# Confidence Interval

Constituent: Antimony (mg/L)    Analysis Run 11/4/2022 4:00 PM    View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch    Client: Southern Company    Data: Plant Branch AP

	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
8/10/2018	<0.003				
8/23/2018	0.00085 (J)				
9/19/2018	<0.003				
10/29/2018	<0.003				
11/28/2018	<0.003				
12/20/2018	<0.003				
1/17/2019	<0.003				
1/18/2019					<0.003
1/19/2019				<0.003	
2/13/2019	<0.003				
8/29/2019	<0.003				
10/16/2019	<0.003				
10/18/2019				<0.003	<0.003
3/4/2020	0.00043 (J)				
8/20/2020	<0.003			0.0017 (J)	<0.003
9/17/2020	<0.003			<0.003	0.00043 (J)
3/3/2021			0.0013 (J)		0.0018 (J)
3/4/2021	0.00091 (J)			0.00079 (J)	
3/5/2021		0.00056 (J)			
9/27/2021				0.0012 (J)	<0.003
9/28/2021	<0.003	<0.003	<0.003		
2/2/2022	<0.003			<0.003	<0.003
2/3/2022		<0.003	<0.003		
8/24/2022			<0.003	<0.003	<0.003
8/25/2022	<0.003	<0.003			
Mean	0.002599	0.00239	0.002575	0.002336	0.002529
Std. Dev.	0.0008968	0.00122	0.00085	0.0009479	0.0009463
Upper Lim.	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.00091	0.00056	0.0013	0.00079	0.00043

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				<0.005		
9/8/2016	<0.005	<0.005	<0.005		<0.005	
11/17/2016	<0.005					
11/18/2016		<0.005				
11/21/2016			0.0019 (J)	<0.005	<0.005	
2/21/2017	<0.005	<0.005				
2/22/2017			<0.005	<0.005	<0.005	
6/13/2017	0.0006 (J)	0.0009 (J)				
6/14/2017			0.002 (J)	<0.005	<0.005	
9/27/2017	<0.005	0.0007 (J)	0.0016 (J)	<0.005	<0.005	
2/14/2018	<0.005	<0.005	<0.005	<0.005	<0.005	
3/6/2018						<0.005 (X)
5/1/2018						0.0021 (J)
6/26/2018	0.00072 (J)					
6/27/2018		<0.005	<0.005		<0.005	
6/28/2018				<0.005 (X)		<0.005 (X)
7/31/2018						<0.005
8/23/2018						0.00075 (J)
9/19/2018						<0.005
10/29/2018						<0.005
11/28/2018						0.00096 (J)
12/18/2018	0.00091 (J)		<0.005	<0.005		
12/19/2018					<0.005	
12/20/2018		<0.005				<0.005
8/27/2019	<0.005			<0.005	<0.005	
8/28/2019		0.0014 (J)	0.00051 (J)			0.00058 (J)
10/15/2019	0.00052 (J)					
10/16/2019			0.00065 (J)			
12/3/2019						0.0007 (J)
12/4/2019		0.0011 (J)		0.00056 (J)	0.00053 (J)	
3/4/2020	<0.005	<0.005	0.00044 (J)			
3/5/2020				<0.005	<0.005	<0.005
8/19/2020	<0.005	<0.005	<0.005	<0.005	<0.005	
8/20/2020						<0.005
9/15/2020	<0.005		<0.005			
9/16/2020		<0.005		<0.005	<0.005	<0.005
3/2/2021	<0.005					<0.005
3/3/2021		<0.005	0.0015 (J)	<0.005		
3/4/2021					<0.005	
9/23/2021						<0.005
9/28/2021	<0.005	<0.005	<0.005	<0.005	<0.005	
2/2/2022	<0.005			<0.005	<0.005	<0.005
2/3/2022			<0.005			
2/4/2022		<0.005				
8/23/2022	<0.005					
8/24/2022			<0.005	0.00283 (J)		
8/25/2022		<0.005			<0.005	<0.005
Mean	0.003985	0.004065	0.003447	0.004611	0.004737	0.003894
Std. Dev.	0.001887	0.001743	0.001957	0.001169	0.001084	0.00186
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00091	0.0014	0.0015	0.00283	0.00053	0.00096

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
3/6/2018	<0.005 (X)					
3/15/2018		0.0014 (J)				
5/1/2018	0.0018 (JD)	<0.005				
6/27/2018	0.0016 (J)					
6/28/2018		<0.005				
8/1/2018	0.0028 (J)	0.00074 (J)				
8/10/2018			<0.005			
8/23/2018	<0.005		<0.005			
9/19/2018	<0.005		0.0013 (J)			
10/29/2018	0.0012 (J)	<0.005	0.0038 (J)			
11/28/2018	0.0019 (J)	<0.005	0.0016 (J)			
12/19/2018	0.00075 (J)	<0.005				
12/20/2018			0.0032 (J)			
1/16/2019		<0.005				
1/17/2019			0.0032 (J)			
1/19/2019						<0.005
2/13/2019			<0.005			
8/28/2019	0.0018 (J)					
8/29/2019		<0.005	0.00067 (J)			
10/16/2019	<0.005	<0.005	0.0026 (J)			
10/18/2019						<0.005
3/4/2020	0.00049 (J)	0.00046 (J)	0.0047 (J)			
8/20/2020	0.00089 (J)	<0.005	0.0031 (J)			<0.005
9/16/2020	<0.005					
9/17/2020		<0.005	<0.005			<0.005
3/2/2021	<0.005					
3/3/2021					0.0014 (J)	
3/4/2021		<0.005	0.003 (J)			<0.005
3/5/2021				0.00087 (J)		
9/23/2021	0.002 (J)					
9/27/2021		<0.005				<0.005
9/28/2021			<0.005	<0.005	<0.005	
2/2/2022	0.0056		<0.005			<0.005
2/3/2022		<0.005		0.0012 (J)	0.0015 (J)	
8/23/2022	0.00228 (J)					
8/24/2022		0.0025 (J)			0.00308 (J)	0.00222 (J)
8/25/2022			<0.005	0.00235 (J)		
Mean	0.002951	0.004124	0.003657	0.002355	0.002745	0.004652
Std. Dev.	0.001837	0.001675	0.001473	0.001874	0.001689	0.0009829
Upper Lim.	0.005	0.005	0.005	0.002914	0.00374	0.005
Lower Lim.	0.0012	0.0025	0.0026	3.31E-05	0.0002464	0.00222

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51S
1/18/2019	<0.005
10/18/2019	<0.005
8/20/2020	<0.005
9/17/2020	<0.005
3/3/2021	<0.005
9/27/2021	<0.005
2/2/2022	0.002 (J)
8/24/2022	<0.005
Mean	0.004625
Std. Dev.	0.001061
Upper Lim.	0.005
Lower Lim.	0.002

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				0.0206		
9/8/2016	0.0378	0.0184	0.0199		0.0593	
11/17/2016	0.0448					
11/18/2016		0.0173				
11/21/2016			0.0221 (J)	0.0237 (J)	0.0532 (BR)	
2/21/2017	0.0447	0.015				
2/22/2017			0.0179	0.0219	0.0498	
6/13/2017	0.0351	0.0143				
6/14/2017			0.0157	0.0197	0.0421	
9/27/2017	0.0383	0.017	0.0165	0.0213	0.0411	
2/14/2018	0.0327	0.0166	0.0163	0.0236	0.0417	
3/6/2018						0.1
5/1/2018						0.084
6/26/2018	0.031					
6/27/2018		0.015	0.017		0.038	
6/28/2018				0.023		0.067
7/31/2018						0.087 (J+X)
8/23/2018						0.084
9/19/2018						0.086
10/29/2018						0.098 (J+X)
11/28/2018						0.11
12/18/2018	0.03		0.017	0.029		
12/19/2018					0.036	
12/20/2018		0.015				0.093
8/27/2019	0.027			0.027	0.032	
8/28/2019		0.019	0.02			0.11
10/15/2019	0.027					
10/16/2019			0.019			
12/3/2019						0.099
12/4/2019		0.016		0.021	0.028	
3/4/2020	0.026	0.015	0.018			
3/5/2020				0.025	0.026	0.078
8/19/2020	0.027	0.016	0.019	0.026	0.025	
8/20/2020						0.083
9/15/2020	0.024		0.017			
9/16/2020		0.016		0.022	0.024	0.085
3/2/2021	0.026					0.061
3/3/2021		0.016	0.021	0.028		
3/4/2021					0.024	
9/23/2021						0.064
9/28/2021	0.023	0.013	0.017	0.035	0.02	
2/2/2022	0.023			0.031	0.023	0.063
2/3/2022			0.016			
2/4/2022		0.015				
8/23/2022	0.0259					
8/24/2022			0.0175	0.0389		
8/25/2022		0.0161			0.0231	0.0574
Mean	0.03078	0.01592	0.01805	0.02569	0.03449	0.08386
Std. Dev.	0.007065	0.001471	0.001838	0.00533	0.01191	0.01632
Upper Lim.	0.03483	0.01685	0.0192	0.02874	0.04195	0.09373
Lower Lim.	0.02632	0.015	0.0169	0.02236	0.02702	0.07398

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
3/6/2018	0.0519					
3/15/2018		0.021				
5/1/2018	0.057 (D)	0.024				
6/27/2018	0.046					
6/28/2018		0.021				
8/1/2018	0.043 (J+X)	0.02 (J+X)				
8/10/2018			0.038			
8/23/2018	0.038		0.03 (JX)			
9/19/2018	0.036		0.03			
10/29/2018	0.041 (J+X)	0.019 (J+X)	0.025 (J+X)			
11/28/2018	0.039	0.02	0.017			
12/19/2018	0.04	0.02				
12/20/2018			0.013			
1/16/2019		0.02				
1/17/2019			0.017			
1/19/2019						0.017
2/13/2019			0.025			
8/28/2019	0.035					
8/29/2019		0.018	0.017			
10/16/2019	0.032	0.017	0.015			
10/18/2019						0.014
3/4/2020	0.038	0.019	0.022			
8/20/2020	0.035	0.019	0.017			0.013
9/16/2020	0.028					
9/17/2020		0.02	0.02			0.015
3/2/2021	0.036					
3/3/2021					0.08	
3/4/2021		0.025	0.019			0.016
3/5/2021				0.043		
9/23/2021	0.031					
9/27/2021		0.017				0.014
9/28/2021			0.013	0.034	0.057	
2/2/2022	0.028		0.013			0.015
2/3/2022		0.016		0.033	0.057	
8/23/2022	0.0285					
8/24/2022		0.0166			0.0584	0.0154
8/25/2022			0.0179	0.0257		
Mean	0.03797	0.01956	0.02052	0.03393	0.0631	0.01493
Std. Dev.	0.007891	0.002402	0.007012	0.007091	0.01129	0.00126
Upper Lim.	0.04274	0.02107	0.02435	0.05003	0.08	0.01626
Lower Lim.	0.03319	0.01806	0.0161	0.01782	0.057	0.01359



# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51S
1/18/2019	0.031
10/18/2019	0.032
8/20/2020	0.03
9/17/2020	0.033
3/3/2021	0.037
9/27/2021	0.025
2/2/2022	0.027
8/24/2022	0.0223
Mean	0.02966
Std. Dev.	0.004711
Upper Lim.	0.03466
Lower Lim.	0.02467

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-45	BRGWC-47	BRGWC-50	PZ-50D
9/8/2016	0.0002 (J)	0.0011 (J)				
11/18/2016	0.0002 (J)					
11/21/2016		0.0012 (J)				
2/21/2017	0.0002 (J)					
2/22/2017		0.0014 (J)				
6/13/2017	0.0002 (J)					
6/14/2017		0.0012 (J)				
9/27/2017	0.0001 (J)	0.001 (J)				
2/14/2018	<0.0005	<0.0005				
3/6/2018			<0.0005	<0.0005		
3/15/2018					<0.0005	
5/1/2018			<0.0005	<0.0005 (D)	<0.0005	
6/27/2018	0.00014 (J)	0.0008 (J)		<0.0005		
6/28/2018			<0.0005		0.003 (J)	
7/31/2018			<0.0005			
8/1/2018				<0.0005	0.0025 (J)	
8/23/2018			7.9E-05 (J)	5.5E-05 (J)		
9/19/2018			<0.0005	<0.0005		
10/29/2018			<0.0005	<0.0005	0.0042	
11/28/2018			<0.0005	5.6E-05 (J)	0.0029 (J)	
12/18/2018		0.00071 (J)				
12/19/2018				<0.0005 (X)	0.0043	
12/20/2018	<0.0005 (X)		<0.0005			
1/16/2019					0.0038	
8/28/2019	0.00012 (J)	0.0008 (J)	<0.0005	<0.0005		
8/29/2019					0.0029 (J)	
10/16/2019		0.00072 (J)		<0.0005	0.0027 (J)	
10/17/2019	<0.0005		<0.0005			
12/3/2019			<0.0005			
12/4/2019	0.00012 (J)					
3/4/2020	0.00012 (J)	0.00073 (J)		<0.0005	0.0052	
3/5/2020			<0.0005			
8/19/2020	9.9E-05 (J)	0.00074 (J)				
8/20/2020			4.6E-05 (J)	4.7E-05 (J)	0.0044	
9/15/2020		0.00071 (J)				
9/16/2020	0.00011 (J)		<0.0005	<0.0005		
9/17/2020					0.0065	
3/2/2021			<0.0005	<0.0005		
3/3/2021	7.1E-05 (J)	0.00094				
3/4/2021					0.0059	
3/5/2021						<0.0005
9/23/2021			<0.0005	<0.0005		
9/27/2021					0.006	
9/28/2021	<0.0005	0.00079				5.9E-05 (J)
2/2/2022			<0.0005	<0.0005		
2/3/2022		0.00083			0.0071	<0.0005
2/4/2022	5.4E-05 (J)					
8/23/2022				<0.0005		
8/24/2022		0.000845			0.00831	
8/25/2022	<0.0005		<0.0005			0.000269 (J)
Mean	0.0002352	0.0008832	0.0004539	0.0004254	0.004159	0.000332
Std. Dev.	0.0001743	0.0002286	0.0001381	0.0001716	0.002169	0.0002121

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-45	BRGWC-47	BRGWC-50	PZ-50D
Upper Lim.	0.0005	0.001026	0.0005	0.0005	0.005518	0.0004024
Lower Lim.	0.0001	0.00074	7.9E-05	5.6E-05	0.002801	-7.439E-05

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-511
1/19/2019	6.4E-05 (J)
10/18/2019	<0.0005
8/20/2020	7.7E-05 (J)
9/17/2020	9.6E-05 (J)
3/4/2021	9.7E-05 (J)
9/27/2021	7.1E-05 (J)
2/2/2022	7.1E-05 (J)
8/24/2022	<0.0005
Mean	0.0001845
Std. Dev.	0.0001951
Upper Lim.	0.0005
Lower Lim.	6.4E-05

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50
9/6/2016		<0.001				
9/8/2016	7E-05 (J)		<0.001			
11/18/2016	9E-05 (J)					
11/21/2016		8E-05 (J)	8E-05 (J)			
2/21/2017	<0.001					
2/22/2017		<0.001	0.0001 (J)			
6/13/2017	<0.001					
6/14/2017		<0.001	<0.001			
9/27/2017	<0.001	<0.001	<0.001			
2/14/2018	<0.001	<0.001	<0.001			
3/6/2018				<0.001	<0.001	
3/15/2018						0.038
5/1/2018				<0.001	<0.001 (D)	0.011
6/27/2018	<0.001		0.00011 (J)		0.00014 (J)	
6/28/2018		<0.001		<0.001		0.087
7/31/2018				<0.001		
8/1/2018					0.00011 (J)	0.042
8/23/2018				<0.001	0.00018 (J)	
9/19/2018				<0.001	0.00015 (J)	
10/29/2018				9.8E-05 (J)	0.00019 (J)	0.083
11/28/2018				<0.001	0.00022 (J)	0.031
12/18/2018		<0.001				
12/19/2018			<0.001 (X)		<0.001	0.042
12/20/2018	<0.001			<0.001 (X)		
1/16/2019						0.028
8/27/2019		<0.001	<0.001			
8/28/2019	<0.001			<0.001	0.00017 (J)	
8/29/2019						0.0071
10/16/2019					0.00018 (J)	0.014
10/17/2019	<0.001	<0.001	<0.001	<0.001		
12/3/2019				0.00011 (J)		
12/4/2019	<0.001	<0.001	<0.001			
3/4/2020	<0.001				0.00024 (J)	0.013
3/5/2020		<0.001	<0.001	<0.001		
8/19/2020	<0.001	<0.001	<0.001			
8/20/2020				0.00014 (J)	<0.001	0.0079
9/16/2020	<0.001	<0.001	<0.001	<0.001	<0.001	
9/17/2020						0.021
3/2/2021				0.0002 (J)	<0.001	
3/3/2021	<0.001	<0.001				
3/4/2021			<0.001			0.019
9/23/2021				<0.001	<0.001	
9/27/2021						0.0095
9/28/2021	<0.001	<0.001	<0.001			
2/2/2022		0.00014 (J)	<0.001	<0.001	0.00015 (J)	
2/3/2022						0.0085
2/4/2022	<0.001					
8/23/2022					<0.001	
8/24/2022		<0.001				0.00818
8/25/2022	<0.001		<0.001	<0.001		
Mean	0.0008978	0.0009011	0.0008494	0.0008183	0.0005406	0.02766
Std. Dev.	0.0002975	0.000288	0.0003465	0.0003619	0.0004238	0.02475

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50
Upper Lim.	0.001	0.001	0.001	0.001	0.001	0.03637
Lower Lim.	9E-05	0.00014	0.00011	0.0002	0.00015	0.0123

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-511
8/3/2018	0.0015
1/19/2019	0.0016
10/18/2019	0.00083 (J)
8/20/2020	0.0019 (J)
9/17/2020	0.033
10/27/2020	0.0051
3/4/2021	0.017
9/27/2021	0.0031
2/2/2022	0.0043
8/24/2022	0.00478
Mean	0.007311
Std. Dev.	0.01016
Upper Lim.	0.01225
Lower Lim.	0.001149

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				<0.01		
9/8/2016	<0.01	0.001 (J)	<0.01		<0.01	
11/17/2016	<0.01					
11/18/2016		<0.01				
11/21/2016			<0.01	<0.01	<0.01	
2/21/2017	<0.01	<0.01				
2/22/2017			<0.01	<0.01	0.0012 (J)	
6/13/2017	<0.01	<0.01				
6/14/2017			<0.01	<0.01	0.0009 (J)	
9/27/2017	<0.01	<0.01	<0.01	<0.01	0.0011 (J)	
2/14/2018	<0.01	<0.01	<0.01	<0.01	<0.01	
3/6/2018						<0.01
5/1/2018						<0.01
6/26/2018	<0.01					
6/27/2018		<0.01	<0.01		<0.01	
6/28/2018				<0.01		<0.01
7/31/2018						<0.01
8/23/2018						<0.01
9/19/2018						<0.01
10/29/2018						<0.01
11/28/2018						<0.01
12/18/2018	<0.01		<0.01	<0.01		
12/19/2018					<0.01	
12/20/2018		0.003 (J)				<0.01
8/27/2019	0.0016 (J)			0.0051 (J)	0.0019 (J)	
8/28/2019		<0.01	<0.01			<0.01
10/15/2019	0.00098 (J)					
10/16/2019			<0.01			
12/3/2019						<0.01
12/4/2019		<0.01		<0.01	0.0014 (J)	
3/4/2020	<0.01	<0.01	0.02			
3/5/2020				<0.01	0.0014 (J)	0.00053 (J)
8/19/2020	<0.01	<0.01	<0.01	<0.01	0.0021 (J)	
8/20/2020						0.001 (J)
9/15/2020	<0.01		<0.01			
9/16/2020		<0.01		0.014	0.0025 (J)	0.0014 (J)
3/2/2021	<0.01					<0.01
3/3/2021		<0.01	<0.01	<0.01		
3/4/2021					0.002 (J)	
9/23/2021						<0.01
9/28/2021	<0.01	<0.01	<0.01	<0.01	0.0021 (J)	
2/2/2022	<0.01			<0.01	0.0021 (J)	<0.01
2/3/2022			<0.01			
2/4/2022		<0.01				
8/23/2022	<0.01					
8/24/2022			<0.01	<0.01		
8/25/2022		<0.01			<0.01	<0.01
Mean	0.008975	0.009059	0.01059	0.009947	0.004629	0.008496
Std. Dev.	0.002895	0.00268	0.002425	0.00158	0.004109	0.003464
Upper Lim.	0.01	0.01	0.02	0.014	0.01	0.01
Lower Lim.	0.0016	0.003	0.01	0.0051	0.0012	0.0014



# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-51I	PZ-51S
3/6/2018	<0.01				
3/15/2018		<0.01			
5/1/2018	<0.01 (D)	<0.01			
6/27/2018	<0.01				
6/28/2018		0.0023 (J)			
8/1/2018	<0.01	0.0046 (J)			
8/10/2018			0.0017 (J)		
8/23/2018	<0.01		<0.01		
9/19/2018	<0.01		<0.01		
10/29/2018	<0.01	<0.01	<0.01		
11/28/2018	<0.01	<0.01	<0.01		
12/19/2018	0.0018 (J)	<0.01			
12/20/2018			<0.01		
1/16/2019		<0.01			
1/17/2019			<0.01		
1/18/2019					<0.01
1/19/2019				<0.01	
2/13/2019			<0.01		
8/28/2019	0.00092 (J)				
8/29/2019		<0.01	<0.01		
10/16/2019	<0.01	0.0005 (J)	<0.01		
10/18/2019				<0.01	0.00042 (J)
3/4/2020	0.00078 (J)	0.00071 (J)	<0.01		
8/20/2020	0.00064 (J)	0.00065 (J)	<0.01	<0.01	0.00063 (J)
9/16/2020	<0.01				
9/17/2020		0.00098 (J)	<0.01	0.00098 (J)	<0.01
3/2/2021	<0.01				
3/3/2021					<0.01
3/4/2021		0.001 (J)	<0.01	0.0008 (J)	
9/23/2021	<0.01				
9/27/2021		<0.01		<0.01	<0.01
9/28/2021			<0.01		
2/2/2022	<0.01		<0.01	<0.01	<0.01
2/3/2022		<0.01			
8/23/2022	<0.01				
8/24/2022		<0.01		<0.01	<0.01
8/25/2022			<0.01		
Mean	0.008008	0.006514	0.009512	0.007722	0.007631
Std. Dev.	0.003841	0.004389	0.002013	0.004217	0.004386
Upper Lim.	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.0018	0.00098	0.0017	0.0008	0.00042

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				0.0006 (J)		
9/8/2016	0.0073 (J)	0.0149	0.0122		0.0025 (J)	
11/17/2016	0.0086 (J)					
11/18/2016		0.0131				
11/21/2016			0.0122	<0.001	0.001 (J)	
2/21/2017	0.0079 (J)	0.0099 (J)				
2/22/2017			0.0136	0.0016 (J)	<0.001	
6/13/2017	0.0083 (J)	0.0094 (J)				
6/14/2017			0.0113	0.0015 (J)	<0.001	
9/27/2017	0.0087 (J)	0.0095 (J)	0.0094 (J)	0.0007 (J)	<0.001	
2/14/2018	<0.001	0.0112	<0.001	<0.001	<0.001	
3/6/2018						0.0162
5/1/2018						0.015
6/26/2018	0.006 (J)					
6/27/2018		0.0093 (J)	0.0069 (J)		<0.001	
6/28/2018				0.00078 (J)		0.01
7/31/2018						0.0098 (J)
8/23/2018						0.0093 (J)
9/19/2018						0.0084 (J)
10/29/2018						0.0064 (J)
11/28/2018						0.0071 (J)
12/18/2018	0.0055 (J)		0.0067 (J)	0.0011 (J)		
12/19/2018					<0.001	
12/20/2018		0.0081 (J)				0.069
8/27/2019	0.0042 (J)			0.0014 (J)	<0.001	
8/28/2019		0.01	0.0061			0.011
10/15/2019	0.0043 (J)					
10/16/2019			0.0058			
10/17/2019		0.011 (J)		<0.001	<0.001	0.0098 (J)
12/3/2019						0.0076
12/4/2019		0.0086		0.0012 (J)	<0.001	
3/4/2020	0.0039 (J)	0.008	0.007			
3/5/2020				0.0011 (J)	<0.001	0.0091
8/19/2020	0.0039 (J)	0.0078	0.0065	0.0008 (J)	<0.001	
8/20/2020						0.022
9/15/2020	0.0035 (J)		0.0064			
9/16/2020		0.008		0.0008 (J)	<0.001	0.0049 (J)
3/2/2021	0.003 (J)					0.0057
3/3/2021		0.0062	0.0095	0.0015 (J)		
3/4/2021					<0.001	
9/23/2021						0.0049 (J)
9/28/2021	0.0029 (J)	0.0047 (J)	0.0069	0.001 (J)	<0.001	
2/2/2022	0.0027 (J)			0.0012 (J)	<0.001	0.0054
2/3/2022			0.0077			
2/4/2022		0.0076				
8/23/2022	0.00342					
8/24/2022			0.0066	0.00163		
8/25/2022		0.0079			<0.001	0.00357
Mean	0.005007	0.009178	0.007988	0.001106	0.001083	0.01238
Std. Dev.	0.002378	0.002378	0.003074	0.0003155	0.0003536	0.01443
Upper Lim.	0.006497	0.01062	0.009914	0.00119	0.0025	0.015
Lower Lim.	0.003517	0.007739	0.006062	0.0007782	0.001	0.0054

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
3/6/2018	<0.001					
3/15/2018		1.3				
5/1/2018	0.0125 (D)	1.4				
6/27/2018	0.0076 (J)					
6/28/2018		1.3				
8/1/2018	0.004 (J)	1.4				
8/3/2018						0.041
8/10/2018			0.0043 (J)			
8/23/2018	0.0016 (J)		0.0026 (J)			
9/19/2018	0.0018 (J)		0.0028 (J)			
10/29/2018	0.0014 (J)	1.4	0.0015 (J)			
11/28/2018	0.0016 (J)	1.4	0.0012 (J)			
12/19/2018	0.0014 (J)	1.5				
12/20/2018			<0.001			
1/16/2019		1.4				
1/17/2019			<0.001			
1/19/2019						0.018
2/13/2019			<0.001			
8/28/2019	0.00037 (J)					
8/29/2019		1.3	0.00063 (J)			
10/16/2019	0.00032 (J)	1.4	<0.001			
10/18/2019						0.017
3/4/2020	0.0011 (J)	1.5	<0.001			
8/20/2020	0.00043 (J)	1.4	<0.001			0.02
9/16/2020	0.00053 (J)					
9/17/2020		1.4	0.00046 (J)			0.022
10/27/2020				0.0037 (J)	0.00041 (J)	0.02
3/2/2021	0.0005 (J)					
3/3/2021					0.0004 (J)	
3/4/2021		1.4	<0.001			0.019
3/5/2021				0.0038 (J)		
9/23/2021	<0.001					
9/27/2021		1.3				0.02
9/28/2021			<0.001	0.2	<0.001	
2/2/2022	<0.001		<0.001			0.023
2/3/2022		1.5		0.1	<0.001	
8/23/2022	<0.001					
8/24/2022		1.42			0.000306 (J)	0.0239
8/25/2022			<0.001	0.506		
Mean	0.002175	1.395	0.001382	0.1627	0.0006232	0.02239
Std. Dev.	0.003099	0.06615	0.000966	0.2084	0.0003464	0.006881
Upper Lim.	0.001751	1.42	0.0015	0.5119	0.0004605	0.0239
Lower Lim.	0.0004698	1.3	0.00063	-0.1865	0.0002954	0.018

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51S
8/2/2018	0.0079 (J)
1/18/2019	0.0082 (J)
10/18/2019	0.0063
8/20/2020	0.0039 (J)
9/17/2020	0.0062
3/3/2021	0.005
9/27/2021	0.0022 (J)
2/2/2022	0.0028 (J)
8/24/2022	0.00193
Mean	0.004937
Std. Dev.	0.002373
Upper Lim.	0.007228
Lower Lim.	0.002645

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				1.01 (U)		
9/8/2016	0.862 (U)	1.74	1.13		0.706 (U)	
11/17/2016	1.2 (U)					
11/18/2016		0.571 (U)				
11/21/2016			1.59	0.201 (U)	0.0569 (U)	
2/21/2017	1.31	1.28 (U)				
2/22/2017			1.64	0.57 (U)	1.07 (U)	
6/13/2017	0.738 (U)	0.521 (U)				
6/14/2017			1.32	0.726 (U)	0.459 (U)	
9/27/2017	0.583 (U)	0.595 (U)	1.7	0.884 (U)	0.807 (U)	
2/14/2018	1.41 (J+X)	1.18 (U)	1.89 (J+X)	1.14 (U)	1.67 (J+X)	
3/6/2018						1.25 (U)
5/1/2018						0.423 (U)
6/26/2018	0.968 (U)					
6/27/2018		1.3 (U)	1.66 (J+X)		1.34 (UX)	
6/28/2018				1.4 (UX)		0.283 (U)
7/31/2018						0.243 (U)
8/23/2018						1.1 (U)
9/19/2018						0.369 (U)
10/29/2018						0.401 (U)
11/28/2018						0.901 (U)
12/18/2018	1.13 (U)		0.759 (U)	0.661 (U)		
12/19/2018					1.21 (U)	
12/20/2018		0.527 (U)				0.657 (U)
8/27/2019	0.91 (U)			1.35	0.86 (U)	
8/28/2019		0.643 (U)	1.76			0.528 (U)
10/15/2019	1.06 (U)					
10/16/2019			1.69 (U)			
10/17/2019		1.07 (U)		1.25 (U)	1.2 (U)	0.977 (U)
3/4/2020	1.34	1.18	1.23			
3/5/2020				1.35	0.483 (U)	0.921 (U)
8/19/2020	0.467 (U)	0.684 (U)	0.876 (U)	1 (U)	0.482 (U)	
8/20/2020						0.501 (U)
9/15/2020	0.205 (U)		1.23 (U)			
9/16/2020		0.175 (U)		0.43 (U)	0.195 (U)	0.254 (U)
3/2/2021	0.161 (U)					0.107 (U)
3/3/2021		0.829 (U)	1.31 (U)	0.415 (U)		
3/4/2021					0.32 (U)	
9/23/2021						0.619 (U)
9/28/2021	4.44	3.58	1.49	0.749 (U)	0.947 (U)	
2/2/2022	0.64 (U)			1.21 (U)	0.0265 (U)	0.219 (U)
2/3/2022			0.798 (U)			
2/4/2022		0.335 (U)				
8/23/2022	1.9					
8/24/2022			1.97	3.26		
8/25/2022		1.79			1.32	1.65
Mean	1.137	1.059	1.414	1.036	0.7737	0.6335
Std. Dev.	0.9613	0.798	0.3731	0.6789	0.4878	0.4179
Upper Lim.	1.536	1.415	1.648	1.353	1.079	0.8864
Lower Lim.	0.5768	0.5721	1.18	0.6195	0.468	0.3806

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
3/6/2018	1.75 (J+X)					
3/15/2018		1.31				
5/1/2018	2.02 (J+XD)	1.69 (J+X)				
6/27/2018	0.878 (U)					
6/28/2018		1.04 (U)				
8/1/2018	0.638 (U)	1.67				
8/10/2018			1.91			
8/23/2018	1.14 (U)		1.86 (J+X)			
9/19/2018	1.45 (UX)		1.64 (UX)			
10/29/2018	1.09 (U)	0.992 (U)	1.36 (U)			
11/28/2018	1.67 (UX)	1.76 (UX)	1.07 (U)			
12/19/2018	1.3	2.15 (J+X)				
12/20/2018			0.892 (U)			
1/16/2019		1.39				
1/17/2019			1.1 (U)			
1/19/2019						1.86
2/13/2019			1.68			
8/28/2019	0.804 (U)					
8/29/2019		1.33	1.44			
10/16/2019	1.28 (U)	2.51	2.13			
10/18/2019						11.7 (U)
3/4/2020	0.862 (U)	1.73	2.3			
8/20/2020	1.64	2.78	2.97			0.937 (U)
9/16/2020	0.51 (U)					
9/17/2020		0.717 (U)	2.04			1.76
3/2/2021	0.571 (U)					
3/3/2021					2.54	
3/4/2021		1.22	2.04			0.966 (U)
3/5/2021				2.11		
9/23/2021	0.527 (U)					
9/27/2021		2.07				0.771 (U)
9/28/2021			3.28	1.05	1.89	
2/2/2022	0.145 (U)		2.33			0.992 (U)
2/3/2022		1.15		1	2.23	
8/23/2022	3.74					
8/24/2022		1.87			3.33	0.625
8/25/2022			4.97	2.26		
Mean	1.223	1.611	2.06	1.605	2.498	2.451
Std. Dev.	0.8064	0.5523	0.9825	0.6728	0.6152	3.764
Upper Lim.	1.593	1.957	2.558	3.133	3.894	11.7
Lower Lim.	0.716	1.264	1.453	0.07744	1.101	0.625

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51S
1/18/2019	1.22
10/18/2019	17.1 (U)
8/20/2020	1.19
9/17/2020	0.952 (U)
3/3/2021	0.599 (U)
9/27/2021	0.00107 (U)
2/2/2022	0.0266 (U)
8/24/2022	1.2
Mean	2.786
Std. Dev.	5.805
Upper Lim.	17.1
Lower Lim.	0.00107

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				0.43		
9/8/2016	0.14 (J)	0.31	0.2 (J)		0.15 (J)	
11/17/2016	0.27 (J)					
11/18/2016		0.19 (J)				
11/21/2016			0.37	0.24 (J)	0.04 (J)	
2/21/2017	0.6	0.35				
2/22/2017			0.37	0.2 (J)	0.08 (J)	
6/13/2017	0.19 (J)	0.19 (J)				
6/14/2017			0.38	0.15 (J)	0.09 (J)	
9/27/2017	0.5	0.4	0.4	0.41	<0.1	
2/14/2018	<0.1	<0.1	<0.1	<0.1	<0.1	
3/6/2018						0.94
5/1/2018						<0.1
6/26/2018	0.15 (J)					
6/27/2018		0.26 (J)	0.085 (J)		<0.1	
6/28/2018				0.93 (J+X)		0.69 (J+X)
7/31/2018						<0.1
8/23/2018						<0.1
9/19/2018						<0.1
10/29/2018						<0.1
11/28/2018						<0.1
12/18/2018	0.29 (J)		0.26 (J)	0.54		
12/19/2018					0.23 (J)	
12/20/2018		0.26 (J)				0.12 (J)
3/19/2019		0.2 (J)				
3/20/2019	0.17 (JD)		0.091 (J)	0.31	<0.1	0.066 (J)
8/27/2019	0.15 (J)			0.12 (J)	<0.1	
8/28/2019		0.074 (J)	0.055 (J)			<0.1
10/15/2019	0.16 (J)					
10/16/2019			0.11 (J)			
12/3/2019						0.19 (J)
12/4/2019		0.18 (J)		0.26 (J)	0.11 (J)	
3/4/2020	0.07 (J)	<0.1	<0.1			
3/5/2020				0.051 (J)	<0.1	<0.1
8/19/2020	0.17	0.19	0.12	0.14	<0.1	
8/20/2020						<0.1
9/15/2020	0.15		0.057 (J)			
9/16/2020		0.15		0.13	<0.1	0.052 (J)
3/2/2021	0.15					0.067 (J)
3/3/2021		0.24	0.13	0.13		
3/4/2021					<0.1	
9/23/2021						0.06 (J)
9/28/2021	0.15	0.16	0.081 (J)	0.11	<0.1	
2/2/2022	0.15			0.1	<0.1	<0.1
2/3/2022			0.11			
2/4/2022		0.14				
8/23/2022	0.186					
8/24/2022			0.103	0.318		
8/25/2022		0.234			0.138	0.166
Mean	0.2081	0.2071	0.1734	0.2594	0.1077	0.1764
Std. Dev.	0.1353	0.08675	0.1234	0.215	0.03756	0.2312
Upper Lim.	0.27	0.2596	0.37	0.3461	0.11	0.166



# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
Lower Lim.	0.14	0.1546	0.085	0.1334	0.09	0.067

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
3/6/2018	1.1					
3/15/2018		0.84 (JX)				
5/1/2018	0.595 (D)	0.91				
6/27/2018	0.27 (J)					
6/28/2018		1.1 (J+X)				
8/1/2018	0.48	2				
8/10/2018			1.6 (O)			
8/23/2018	0.34		0.32			
9/19/2018	0.23 (J)		0.22 (J)			
10/29/2018	<0.1	0.24 (J)	0.14 (J)			
11/28/2018	0.063 (J)	0.41	0.24 (J)			
12/19/2018	0.28 (J)	0.54				
12/20/2018			0.3			
1/16/2019		1.1				
1/17/2019			0.23 (J)			
1/19/2019						<0.1
2/13/2019			<0.1			
3/19/2019	<0.1					
3/20/2019		0.21 (J)	0.135 (JD)			
8/28/2019	<0.1					
8/29/2019		0.41	0.087 (J)			
10/16/2019	0.076 (J)	0.39	0.22 (J)			
10/18/2019						<0.1
3/4/2020	<0.1	0.14 (J)	0.1 (J)			
8/20/2020	<0.1	0.39	0.23			<0.1
9/16/2020	<0.1					
9/17/2020		0.46	0.074 (J)			<0.1
10/27/2020				0.28	0.21	<0.1
3/2/2021	<0.1					
3/3/2021					0.28	
3/4/2021		0.6	0.28			0.061 (J)
3/5/2021				0.16		
9/23/2021	<0.1					
9/27/2021		0.43				<0.1
9/28/2021			0.12	0.11	0.26	
2/2/2022	<0.1		0.098 (J)			<0.1
2/3/2022		0.42		0.15	0.27	
8/23/2022	<0.1					
8/24/2022		0.497			0.318	0.148
8/25/2022			0.157	0.106		
Mean	0.2334	0.6159	0.1795	0.1612	0.2676	0.101
Std. Dev.	0.257	0.4444	0.08022	0.07055	0.03897	0.02184
Upper Lim.	0.34	0.8057	0.2297	0.2794	0.3329	0.148
Lower Lim.	0.076	0.3536	0.1292	0.04298	0.2023	0.061

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51S
1/18/2019	0.13 (J)
10/18/2019	0.09 (J)
8/20/2020	0.056 (J)
9/17/2020	0.062 (J)
3/3/2021	0.083 (J)
9/27/2021	0.072 (J)
2/2/2022	0.053 (J)
8/24/2022	0.131
Mean	0.08463
Std. Dev.	0.03101
Upper Lim.	0.1175
Lower Lim.	0.05175

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-45	BRGWC-47
9/6/2016				<0.002		
9/8/2016	<0.002	<0.002	0.0004 (J)			
11/17/2016	<0.002					
11/18/2016		<0.002				
11/21/2016			0.0006 (J)	<0.002		
2/21/2017	<0.002	<0.002				
2/22/2017			0.0005 (J)	<0.002		
6/13/2017	<0.002	<0.002				
6/14/2017			0.0004 (J)	<0.002		
9/27/2017	<0.002	<0.002	0.0006 (J)	<0.002		
2/14/2018	<0.002	<0.002	<0.005 (o)	<0.002		
3/6/2018					<0.002	<0.002
5/1/2018					<0.002	<0.002 (D)
6/26/2018	<0.002					
6/27/2018		<0.002	0.00032 (J)			<0.002
6/28/2018				<0.002	<0.002	
7/31/2018					<0.002	
8/1/2018						<0.002
8/23/2018					<0.002	<0.002
9/19/2018					<0.002	<0.002
10/29/2018					<0.002	<0.002
11/28/2018					<0.002	<0.002
12/18/2018	<0.002		0.00038 (J)	<0.002		
12/19/2018						<0.002
12/20/2018		<0.002			<0.002	
8/27/2019	0.00011 (J)			<0.002		
8/28/2019		<0.002	0.00027 (J)		<0.002	<0.002
10/15/2019	<0.002					
10/16/2019			0.00027 (J)			<0.002
12/3/2019					<0.002	
12/4/2019		6.3E-05 (J)		<0.002		
3/4/2020	<0.002	<0.002	0.0003 (J)			0.00012 (J)
3/5/2020				<0.002	0.00026 (J)	
8/19/2020	<0.002	<0.002	0.00025 (J)	<0.002		
8/20/2020					0.00021 (J)	4.8E-05 (J)
9/15/2020	<0.002		0.00029 (J)			
9/16/2020		<0.002		0.00011 (J)	5.3E-05 (J)	6.6E-05 (J)
3/2/2021	<0.002				<0.002	<0.002
3/3/2021		<0.002	0.00033 (J)	<0.002		
9/23/2021					<0.002	<0.002
9/28/2021	<0.002	<0.002	<0.002	<0.002		
2/2/2022	<0.002			<0.002	<0.002	<0.002
2/3/2022			<0.002			
2/4/2022		<0.002				
8/23/2022	<0.002					<0.002
8/24/2022			<0.002	<0.002		
8/25/2022		<0.002			<0.002	
Mean	0.001889	0.001886	0.0006819	0.001889	0.001696	0.00168
Std. Dev.	0.0004584	0.0004698	0.0006628	0.0004584	0.0007011	0.0007372
Upper Lim.	0.002	0.002	0.0006	0.002	0.002	0.002
Lower Lim.	0.00011	6.3E-05	0.00029	0.00011	0.00026	0.00012

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
3/15/2018	<0.002				
5/1/2018	<0.002				
6/28/2018	0.00054 (J)				
8/1/2018	<0.002				
8/10/2018		<0.002			
8/23/2018		<0.002			
9/19/2018		<0.002			
10/29/2018	0.0003 (J)	<0.002			
11/28/2018	<0.002	<0.002			
12/19/2018	<0.002				
12/20/2018		<0.002			
1/16/2019	<0.002				
1/17/2019		<0.002			
1/19/2019					<0.002
2/13/2019		<0.002			
8/29/2019	4.9E-05 (J)	<0.002			
10/16/2019	8.5E-05 (J)	<0.002			
10/18/2019					<0.002
3/4/2020	0.0001 (J)	<0.002			
8/20/2020	6.7E-05 (J)	<0.002			<0.002
9/17/2020	0.00015 (J)	<0.002			0.00036 (J)
3/3/2021				0.00013 (J)	
3/4/2021	0.00016 (J)	4.2E-05 (J)			0.00017 (J)
3/5/2021			5.6E-05 (J)		
9/27/2021	<0.002				<0.002
9/28/2021		<0.002	<0.002	<0.002	
2/2/2022		<0.002			<0.002
2/3/2022	<0.002		<0.002	<0.002	
8/24/2022	<0.002			<0.002	<0.002
8/25/2022		<0.002	<0.002		
Mean	0.001144	0.001885	0.001514	0.001533	0.001566
Std. Dev.	0.000942	0.0004749	0.000972	0.000935	0.0008048
Upper Lim.	0.002	0.002	0.002	0.002	0.002
Lower Lim.	0.0001	4.2E-05	5.6E-05	0.00013	0.00017

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47
9/6/2016			0.0117 (J)			
9/8/2016	0.0021 (J)	0.004 (J)		<0.01		
11/18/2016	<0.01					
11/21/2016		0.0039 (J)	0.0108 (J)	<0.01		
2/21/2017	<0.01					
2/22/2017		0.0043 (J)	0.0103 (J)	0.0023 (J)		
6/13/2017	0.0017 (J)					
6/14/2017		0.0036 (J)	0.0101 (J)	0.0022 (J)		
9/27/2017	0.0016 (J)	0.0038 (J)	0.0116 (J)	0.0021 (J)		
2/14/2018	0.0018 (J)	0.0034 (J)	0.0115 (J)	0.0023 (J)		
3/6/2018					0.0031 (J)	0.0399 (J)
5/1/2018					0.0038 (J)	0.0475 (JD)
6/27/2018	0.0016 (J)	0.0034 (J)		0.0023 (J)		0.044 (J)
6/28/2018			0.013 (J)		0.0028 (J)	
7/31/2018					<0.25 (o)	
8/1/2018						0.039 (J)
8/23/2018					0.0033 (J)	0.044 (J)
9/19/2018					0.0033 (J)	0.043 (J)
10/29/2018					0.003 (J)	0.039 (J)
11/28/2018					0.0035 (J)	0.044 (J)
12/18/2018		0.0032 (J)	0.014 (J)			
12/19/2018				0.0018 (J)		0.043 (J)
12/20/2018	0.0015 (J)				0.003 (J)	
8/27/2019			0.016 (J)	0.0022 (J)		
8/28/2019	0.0016 (J)	0.0033 (J)			0.0034 (J)	0.044
10/16/2019		0.0029 (J)				0.038
12/3/2019					0.0033 (J)	
12/4/2019	0.0014 (J)		0.013 (J)	0.0022 (J)		
3/4/2020	0.0014 (J)	0.0029 (J)				0.042
3/5/2020			0.016 (J)	0.0022 (J)	0.003 (J)	
8/19/2020	0.0014 (J)	0.0029 (J)	0.018 (J)	0.002 (J)		
8/20/2020					0.0034 (J)	0.044
9/15/2020		0.003 (J)				
9/16/2020	0.0014 (J)		0.016 (J)	0.0022 (J)	0.0036 (J)	0.039
3/2/2021					0.0043 (J)	0.044
3/3/2021	0.0012 (J)	0.0032 (J)	0.014 (J)			
3/4/2021				0.002 (J)		
9/23/2021					0.0023 (J)	0.042
9/28/2021	0.0011 (J)	0.0029 (J)	0.023 (J)	0.0021 (J)		
2/2/2022			0.021 (J)	0.0035 (J)	0.0022 (J)	0.04
2/3/2022		0.0026 (J)				
2/4/2022	0.001 (J)					
8/23/2022						0.0474
8/24/2022		0.00304 (J)	0.0238			
8/25/2022	<0.01			0.0043 (J)	<0.01	
Mean	0.002106	0.003314	0.01493	0.002688	0.003312	0.04243
Std. Dev.	0.001405	0.0004687	0.004314	0.001061	0.0006642	0.002802
Upper Lim.	0.0021	0.003608	0.01735	0.0035	0.003728	0.04413
Lower Lim.	0.0012	0.00302	0.01219	0.0021	0.002896	0.04074

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I	PZ-51S
3/15/2018	0.038 (J)					
5/1/2018	0.042 (J)					
6/28/2018	0.04 (J)					
8/1/2018	0.036 (J)					
8/10/2018		0.0087 (J)				
8/23/2018		0.0089 (J)				
9/19/2018		0.005 (J)				
10/29/2018	0.041 (J)	0.0048 (J)				
11/28/2018	0.041 (J)	0.0052 (J)				
12/19/2018	0.043 (J)					
12/20/2018		0.0042 (J)				
1/16/2019	0.042 (J)					
1/17/2019		0.0039 (J)				
1/18/2019						0.0012 (J)
1/19/2019					0.019 (J)	
2/13/2019		<0.01				
8/29/2019	0.039	0.0052 (J)				
10/16/2019	0.034	0.0023 (J)				
10/18/2019					0.019 (J)	<0.01
3/4/2020	0.042	0.002 (J)				
8/20/2020	0.04	0.0022 (J)			0.019 (J)	<0.01
9/17/2020	0.052	0.0058 (J)			0.021 (J)	<0.01
3/3/2021				0.0093 (J)		<0.01
3/4/2021	0.05	0.003 (J)			0.026 (J)	
3/5/2021			0.019 (J)			
9/27/2021	0.038				0.02 (J)	<0.01
9/28/2021		0.0035 (J)	0.02 (J)	0.0096 (J)		
2/2/2022		0.0041 (J)			0.021 (J)	<0.01
2/3/2022	0.038		0.024 (J)	0.0096 (J)		
8/24/2022	0.0428			0.0042 (J)	0.0222	<0.01
8/25/2022		0.0162	0.0255			
Mean	0.04111	0.005294	0.02213	0.008175	0.0209	0.004525
Std. Dev.	0.004465	0.003416	0.003119	0.002654	0.002371	0.001344
Upper Lim.	0.0439	0.006682	0.02921	0.0096	0.026	0.005
Lower Lim.	0.03831	0.003294	0.01504	0.0042	0.019	0.0012

# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	PZ-511
9/6/2016				<0.0002		
9/8/2016	<0.0002	<0.0002	<0.0002		<0.0002	
11/17/2016	<0.0002					
11/18/2016		<0.0002				
11/21/2016			<0.0002	<0.0002	<0.0002	
2/21/2017	<0.0002	<0.0002				
2/22/2017			<0.0002	<0.0002	<0.0002	
6/13/2017	<0.0002	5E-05 (J)				
6/14/2017			7E-05 (J)	7E-05 (J)	9E-05 (J)	
9/27/2017	4E-05 (J)	4.7E-05 (J)	4E-05 (J)	4E-05 (J)	0.0001 (J)	
2/14/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
6/26/2018	<0.0002					
6/27/2018		<0.0002	<0.0002		<0.0002	
6/28/2018				<0.0002		
12/18/2018	<0.0002		<0.0002	<0.0002		
12/19/2018					<0.0002	
12/20/2018		<0.0002				
1/19/2019						<0.0002
8/27/2019	<0.0002			<0.0002	<0.0002	
8/28/2019		<0.0002	<0.0002			
10/18/2019						<0.0002
8/19/2020	8.3E-05 (J)	<0.0002	9.8E-05 (J)	8.2E-05 (J)	8.2E-05 (J)	
8/20/2020						9.9E-05 (J)
9/15/2020	<0.0002		<0.0002			
9/16/2020		<0.0002		<0.0002	<0.0002	
9/17/2020						<0.0002
3/2/2021	<0.0002					
3/3/2021		<0.0002	<0.0002	<0.0002		
3/4/2021					<0.0002	<0.0002
9/27/2021						<0.0002
9/28/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
2/2/2022	<0.0002			<0.0002	<0.0002	<0.0002
2/3/2022			<0.0002			
2/4/2022		<0.0002				
8/23/2022	<0.0002					
8/24/2022			<0.0002	<0.0002		<0.0002
8/25/2022		<0.0002			<0.0002	
Mean	0.0001815	0.0001798	0.0001739	0.0001728	0.0001781	0.0001874
Std. Dev.	4.941E-05	5.331E-05	5.52E-05	5.69E-05	4.54E-05	3.571E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	8.3E-05	5E-05	9.8E-05	8.2E-05	0.0001	9.9E-05



# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-30I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016		<0.001				
9/8/2016	<0.001					
11/17/2016	<0.001					
11/21/2016		<0.001				
2/21/2017	<0.001					
2/22/2017		<0.001				
6/13/2017	<0.001					
6/14/2017		<0.001				
9/27/2017	<0.001	<0.001				
2/14/2018	<0.001	<0.001				
3/6/2018			<0.001	<0.001		
3/15/2018					<0.001	
5/1/2018			<0.001	<0.001 (D)	0.0022 (J)	
6/26/2018	<0.001					
6/27/2018				<0.001		
6/28/2018		<0.001	<0.001		<0.001	
7/31/2018			<0.001			
8/1/2018				<0.001	0.0033 (J)	
8/10/2018						0.0032 (J)
8/23/2018			<0.001	<0.001		0.005 (J)
9/19/2018			<0.001	<0.001		0.0061 (J)
10/29/2018			<0.001	<0.001	<0.001	0.0065 (J)
11/28/2018			<0.001	<0.001	<0.001	0.0027 (J)
12/18/2018	<0.001	<0.001				
12/19/2018				<0.001	<0.001	
12/20/2018			<0.001			<0.001
1/16/2019					<0.001	
1/17/2019						<0.001
2/13/2019						<0.001
8/27/2019	<0.001	<0.001				
8/28/2019			<0.001	<0.001		
8/29/2019					<0.001	<0.001
10/15/2019	<0.001					
10/16/2019				<0.001	<0.001	<0.001
12/3/2019			<0.001			
12/4/2019		<0.001				
8/19/2020	0.00081 (J)	0.00078 (J)				
8/20/2020			0.00076 (J)	<0.001	<0.001	0.0012 (J)
9/15/2020	0.0008 (J)					
9/16/2020		0.0022 (J)	<0.001	<0.001		
9/17/2020					<0.001	0.0007 (J)
3/2/2021	0.001 (J)		<0.001	<0.001		
3/3/2021		<0.001				
3/4/2021					<0.001	0.001 (J)
9/23/2021			<0.001	<0.001		
9/27/2021					<0.001	
9/28/2021	0.00089 (J)	0.001 (J)				<0.001
2/2/2022	0.0011 (J)	0.0012 (J)	<0.001	<0.001		<0.001
2/3/2022					<0.001	
8/23/2022	0.00105			0.000296 (J)		
8/24/2022		0.00141			<0.001	
8/25/2022			0.000424 (J)			0.000471 (J)

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-25I	BRGWC-30I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
Mean	0.0009781	0.001099	0.000952	0.0009586	0.001219	0.002117
Std. Dev.	7.876E-05	0.0003203	0.0001479	0.0001707	0.0006306	0.002007
Upper Lim.	0.00105	0.0012	0.001	0.001	0.0022	0.005
Lower Lim.	0.00089	0.001	0.00076	0.000296	0.001	0.001

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-50D	PZ-51D	PZ-51I
1/19/2019			<0.001
10/18/2019			<0.001
8/20/2020			<0.001
9/17/2020			<0.001
3/3/2021		0.0068 (J)	
3/4/2021			<0.001
3/5/2021	0.0017 (J)		
9/27/2021			<0.001
9/28/2021	0.0021 (J)	0.0029 (J)	
2/2/2022			<0.001
2/3/2022	0.0012 (J)	0.0017 (J)	
8/24/2022		0.00171	0.000313 (J)
8/25/2022	0.00109		
Mean	0.001523	0.003278	0.0009141
Std. Dev.	0.0004676	0.002415	0.0002429
Upper Lim.	0.002584	0.009763	0.001
Lower Lim.	0.0004608	0.0001132	0.000313

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45
9/6/2016				<0.005		
9/8/2016	<0.005	0.0043 (J)	0.0039 (J)		<0.005	
11/17/2016	<0.005					
11/18/2016		0.0047 (J)				
11/21/2016			0.0058 (J)	<0.005	<0.005	
2/21/2017	<0.005	0.0025 (J)				
2/22/2017			0.005 (J)	<0.005	0.0017 (J)	
6/13/2017	<0.005	0.0036 (J)				
6/14/2017			0.0074 (J)	0.0045 (J)	<0.005	
9/27/2017	<0.005	0.004 (J)	0.0068 (J)	0.0034 (J)	0.0019 (J)	
2/14/2018	<0.005	<0.005	<0.005	<0.005	<0.005	
3/6/2018						<0.005
5/1/2018						<0.005
6/26/2018	<0.005					
6/27/2018		0.0014 (J)	<0.005		0.0017 (J)	
6/28/2018				<0.005		<0.005
7/31/2018						<0.005
8/23/2018						<0.005
9/19/2018						<0.005
10/29/2018						<0.005
11/28/2018						<0.005
12/18/2018	<0.005		<0.005	<0.005		
12/19/2018					0.0059 (J)	
12/20/2018		<0.005				<0.005
8/27/2019	<0.005			0.0038 (J)	0.057	
8/28/2019		0.0017 (J)	<0.005			<0.005
10/15/2019	<0.005					
10/16/2019			<0.005			
12/3/2019						0.0029 (J)
12/4/2019		0.0036 (J)		0.0018 (J)	0.1	
3/4/2020	<0.005	0.0022 (J)	0.0018 (J)			
3/5/2020				<0.005	0.1	<0.005
5/12/2020					0.0989	
8/19/2020	<0.005	<0.005	<0.005	<0.005	0.099	
8/20/2020						<0.005
9/15/2020	<0.005		<0.005			
9/16/2020		0.0042 (J)		<0.005	0.12	<0.005
3/2/2021	0.0021 (J)					<0.005
3/3/2021		0.0031 (J)	0.0042 (J)	<0.005		
3/4/2021					0.14	
9/23/2021						<0.005
9/28/2021	<0.005	<0.005	0.0022 (J)	<0.005	0.13	
2/2/2022	<0.005			<0.005	0.21	<0.005
2/3/2022			<0.005			
2/4/2022		<0.005				
8/23/2022	<0.005					
8/24/2022			<0.005	<0.005		
8/25/2022		<0.005			0.218	<0.005
Mean	0.004829	0.003841	0.004829	0.004618	0.07245	0.004883
Std. Dev.	0.0007034	0.001247	0.001348	0.0008662	0.07317	0.000495
Upper Lim.	0.005	0.005	0.005	0.005	0.13	0.005
Lower Lim.	0.0021	0.0025	0.0042	0.0045	0.0019	0.0029

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-47	BRGWC-50
3/6/2018	<0.005	
3/15/2018		<0.005
5/1/2018	<0.005 (D)	<0.005
6/27/2018	<0.005	
6/28/2018		<0.005
8/1/2018	0.0015 (J)	0.0031 (J)
8/23/2018	<0.005 (X)	
9/19/2018	0.002 (J)	
10/29/2018	<0.005	0.002 (J)
11/28/2018	<0.005	0.0017 (J)
12/19/2018	<0.005	<0.005
1/16/2019		<0.005
8/28/2019	<0.005	
8/29/2019		<0.005
10/16/2019	0.0017 (J)	0.002 (J)
3/4/2020	<0.005	0.0026 (J)
8/20/2020	0.0016 (J)	0.0037 (J)
9/16/2020	0.002 (J)	
9/17/2020		<0.005
3/2/2021	0.0028 (J)	
3/4/2021		0.0039 (J)
9/23/2021	<0.005	
9/27/2021		0.0022 (J)
2/2/2022	<0.005	
2/3/2022		<0.005
8/23/2022	<0.005	
8/24/2022		0.00176 (J)
Mean	0.003978	0.003704
Std. Dev.	0.001509	0.00139
Upper Lim.	0.005	0.005
Lower Lim.	0.002	0.002

# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/4/2022 4:00 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-29I
9/8/2016	<0.002
11/21/2016	0.0002 (J)
2/22/2017	0.0002 (J)
6/14/2017	0.0002 (J)
9/27/2017	0.0002 (J)
2/14/2018	0.00018 (J)
6/27/2018	0.00017 (J)
12/18/2018	0.00017 (J)
8/28/2019	0.00017 (J)
10/16/2019	0.00017 (J)
3/4/2020	0.00016 (J)
8/19/2020	0.00016 (J)
9/15/2020	0.00016 (J)
3/3/2021	0.00018 (J)
9/28/2021	<0.002
2/3/2022	<0.002
8/24/2022	<0.002
Mean	0.0006071
Std. Dev.	0.0007966
Upper Lim.	0.002
Lower Lim.	0.00016

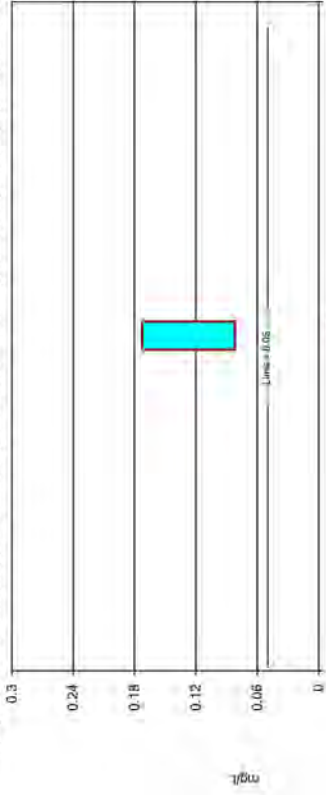
# Confidence Intervals - Selenium BRGWC-32S

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/5/2022, 11:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Selenium (mg/L)	BRGWC-32S	0.1727	0.08187	0.05	Yes	10	0.1273	0.05091	0	None	No	0.01	Param.

### Parametric Confidence Interval

Compliance limit is exceeded. Per-well alpha = 0.01. Normally Test: Shapiro Wilk, alpha based on n.



SPSS/PC-329  
1/1/02

Constituent: Selenium Analysis Run 11/5/2022 11:45 AM View: Pond BCD Appendix IV - Confidence Inter

Plant Branch Client: Southern Company Data: Plant Branch AP



# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/5/2022 11:45 AM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-32S
8/27/2019	0.057
12/4/2019	0.1
3/5/2020	0.1
5/12/2020	0.0989
8/19/2020	0.099
9/16/2020	0.12
3/4/2021	0.14
9/28/2021	0.13
2/2/2022	0.21
8/25/2022	0.218
Mean	0.1273
Std. Dev.	0.05091
Upper Lim.	0.1727
Lower Lim.	0.08187

FIGURE I.

# Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 1/9/2023, 10:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cadmium (mg/L)	BRGWC-50	-0.008185	-69	-63	Yes	17	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004021	-70	-63	Yes	17	11.76	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWC-32S	0.03432	107	68	Yes	18	22.22	n/a	n/a	0.01	NP

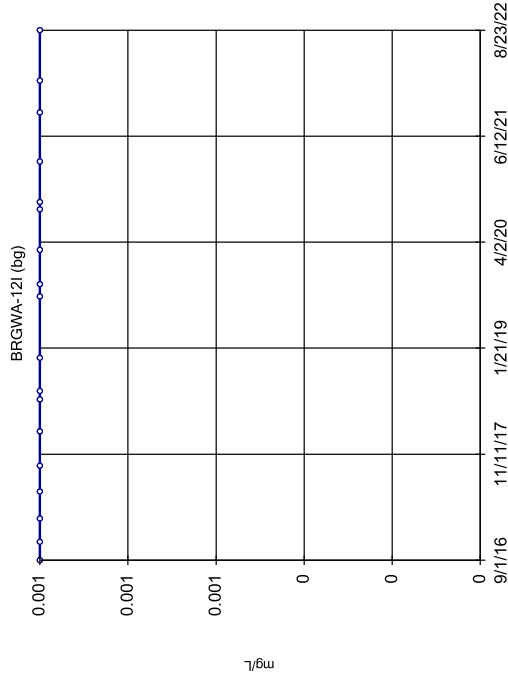
# Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 1/9/2023, 10:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cadmium (mg/L)	BRGWA-12I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-23S (bg)	0	5	63	No	17	88.24	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-6S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>-0.008185</b>	<b>-69</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-12I (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12S (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-23S (bg)	-0.0006981	-57	-63	No	17	11.76	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	-16	-63	No	17	70.59	n/a	n/a	0.01	NP
<b>Cobalt (mg/L)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.0004021</b>	<b>-70</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>11.76</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-5I (bg)	-0.0001378	-49	-53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	26	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	9	63	No	17	70.59	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-50	0	33	63	No	17	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-51I	0.001128	12	30	No	10	0	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-23S (bg)	-0.0003899	-38	-63	No	17	29.41	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5I (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-6S (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
<b>Selenium (mg/L)</b>	<b>BRGWC-32S</b>	<b>0.03432</b>	<b>107</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>22.22</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

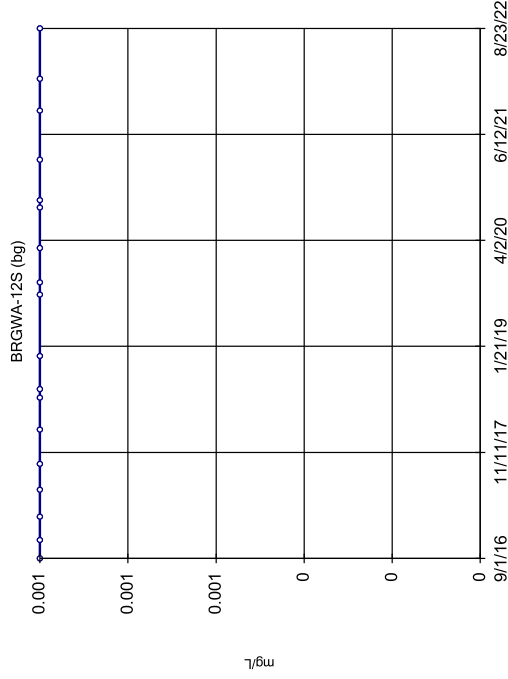
### Sen's Slope Estimator



Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

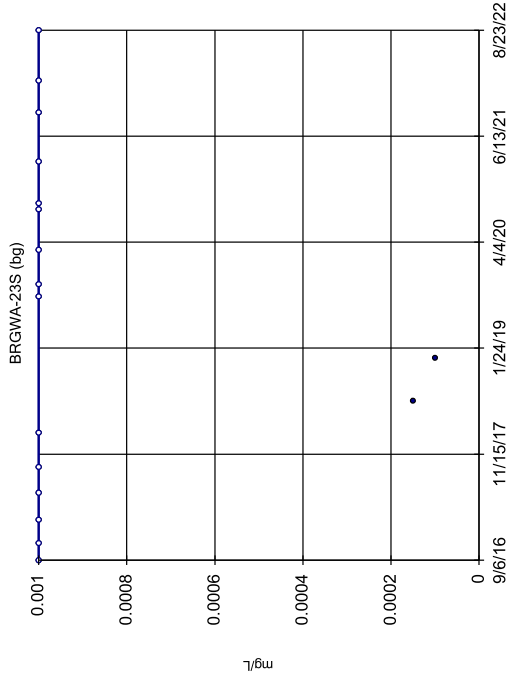
### Sen's Slope Estimator



Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

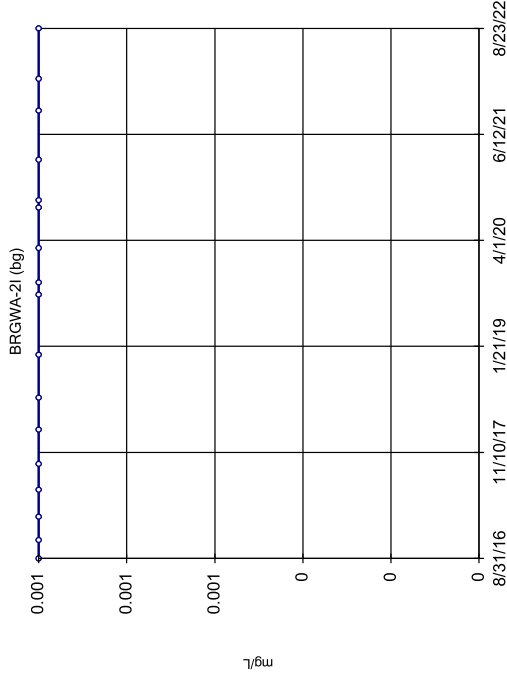
### Sen's Slope Estimator



Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

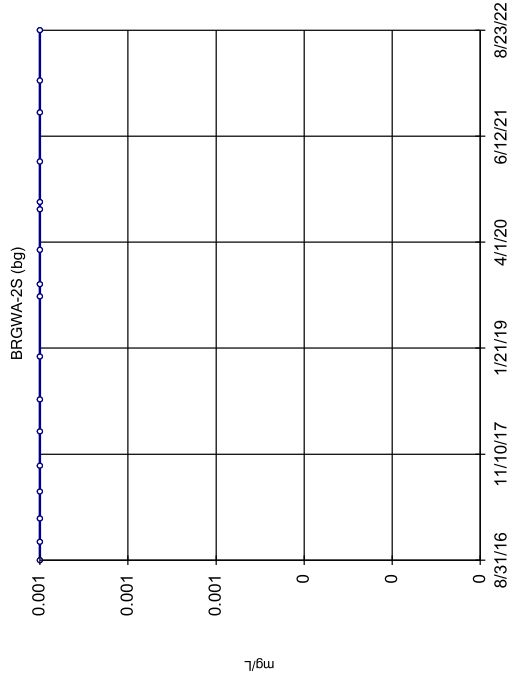
### Sen's Slope Estimator



Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

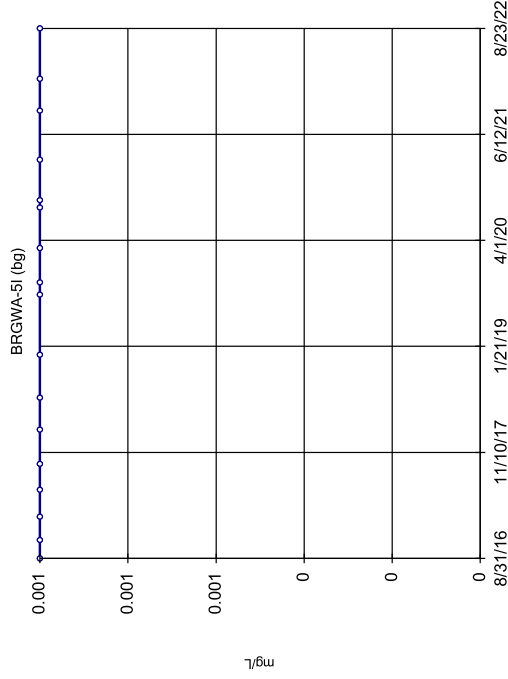


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

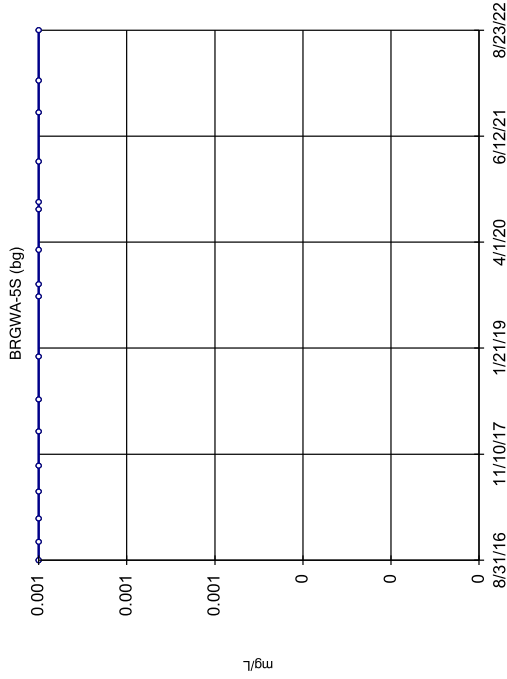


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Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

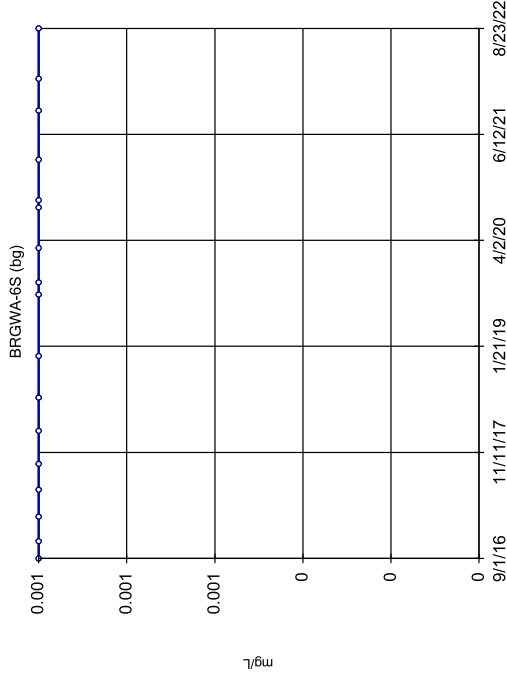


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

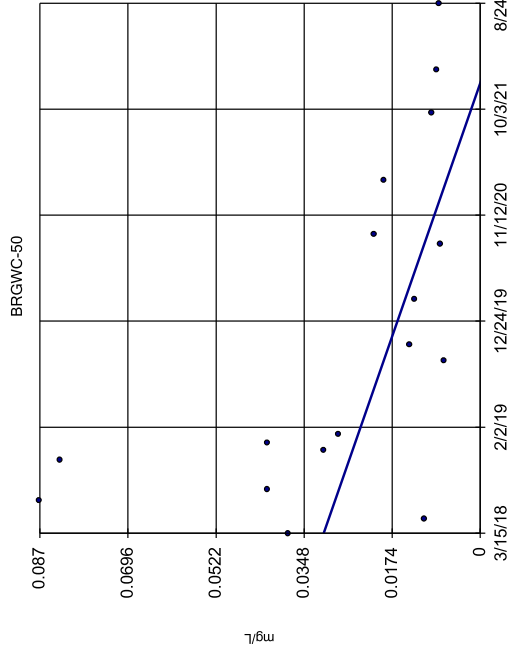
### Sen's Slope Estimator



n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

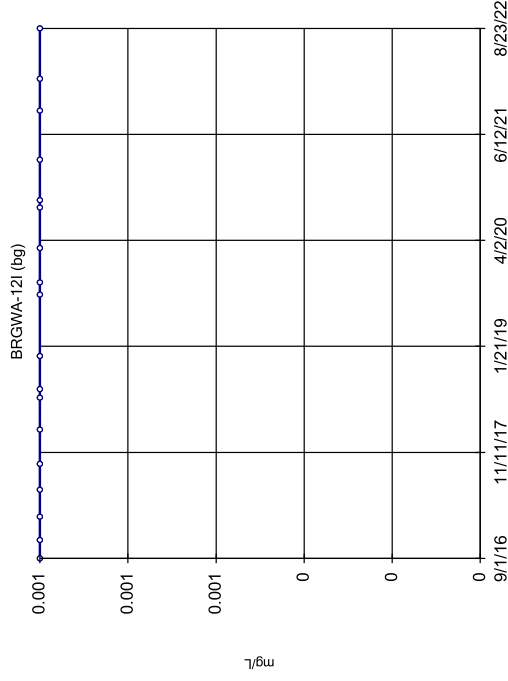
### Sen's Slope Estimator



n = 17  
 Slope = -0.008185  
 units per year.  
 Mann-Kendall  
 statistic = -69  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cadmium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

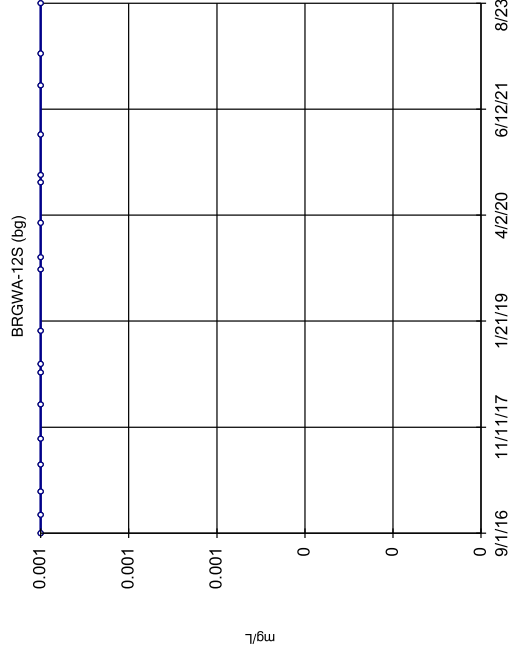
### Sen's Slope Estimator



n = 18  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 0  
 critical = 68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

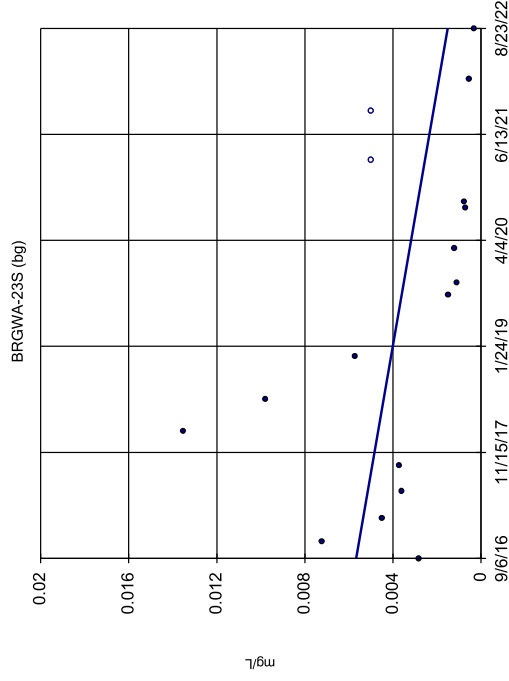
### Sen's Slope Estimator



n = 18  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 0  
 critical = 68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

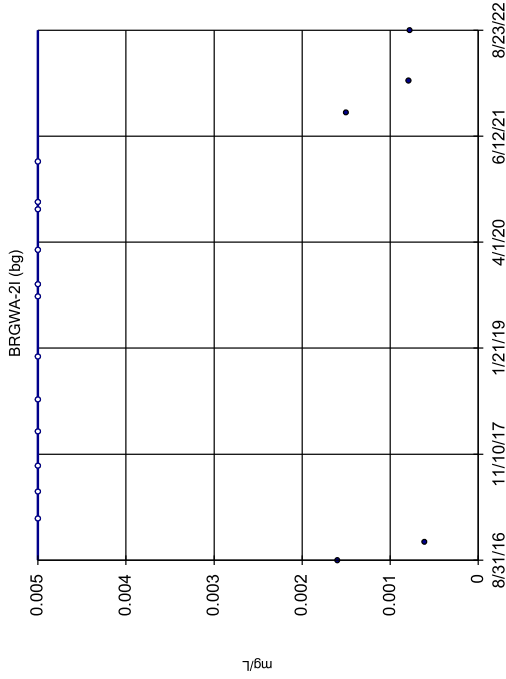


n = 17  
 Slope = -0.0006881  
 units per year.  
 Mann-Kendall  
 statistic = -57  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

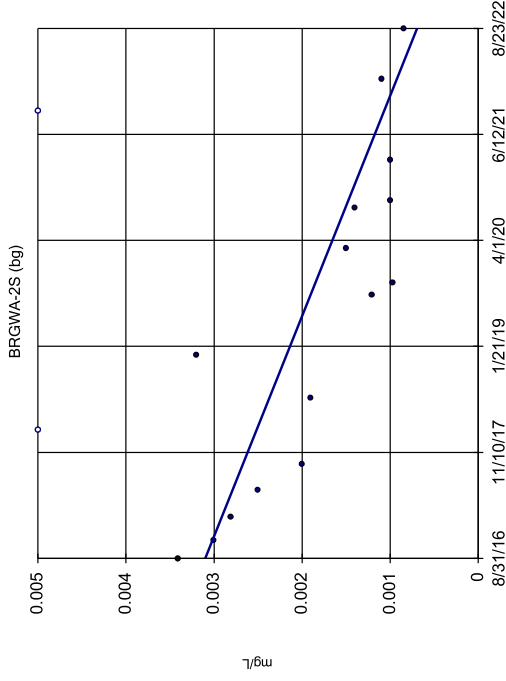


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -16  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

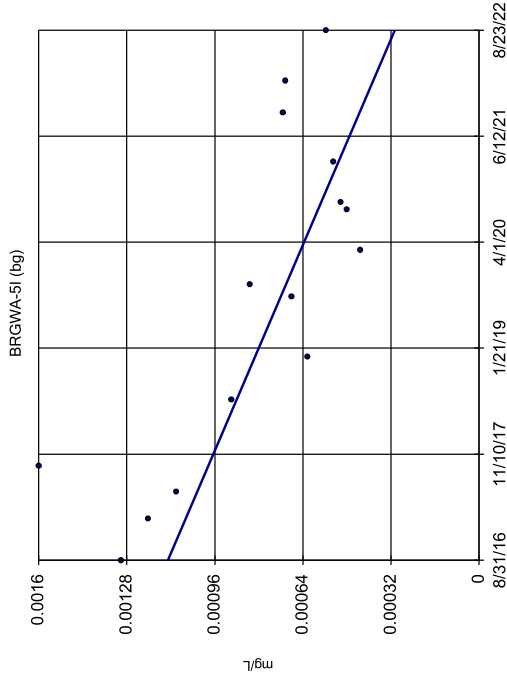


n = 17  
Slope = -0.0004021  
units per year.  
Mann-Kendall  
statistic = -70  
critical = -63  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG

### Sen's Slope Estimator

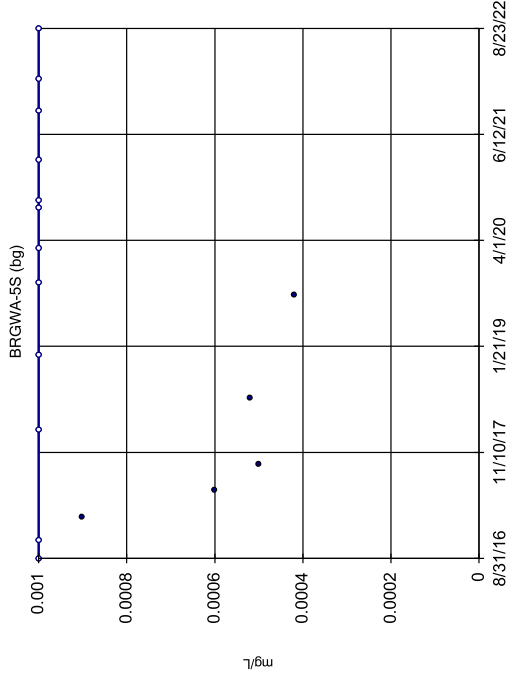


n = 15  
Slope = -0.0001378  
units per year.  
Mann-Kendall  
statistic = -49  
critical = -53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

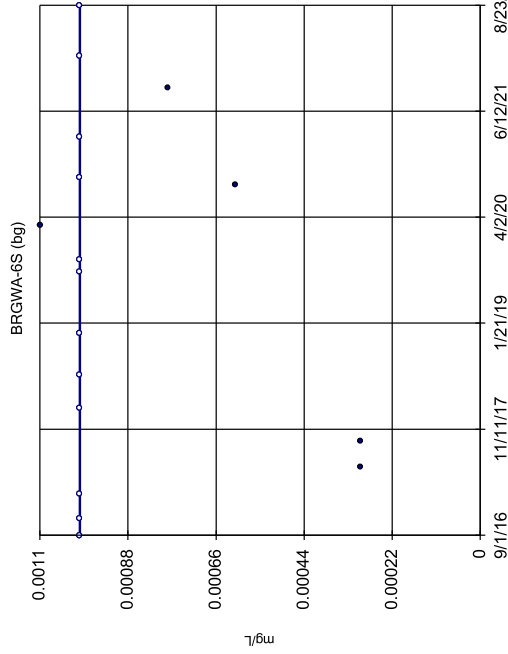


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 25  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

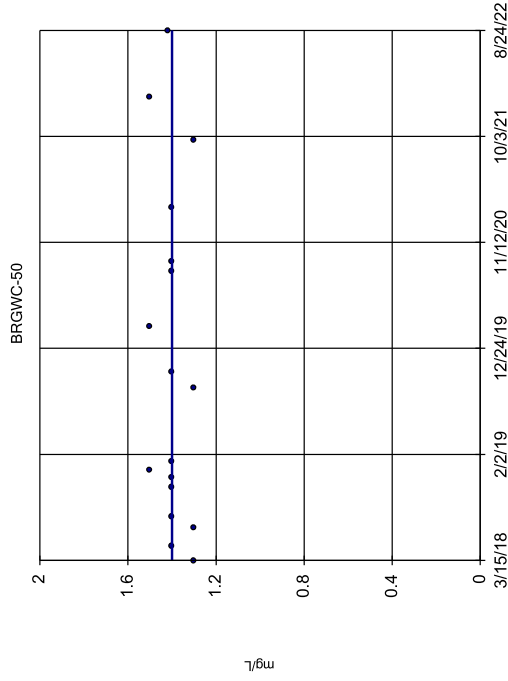


### Sen's Slope Estimator



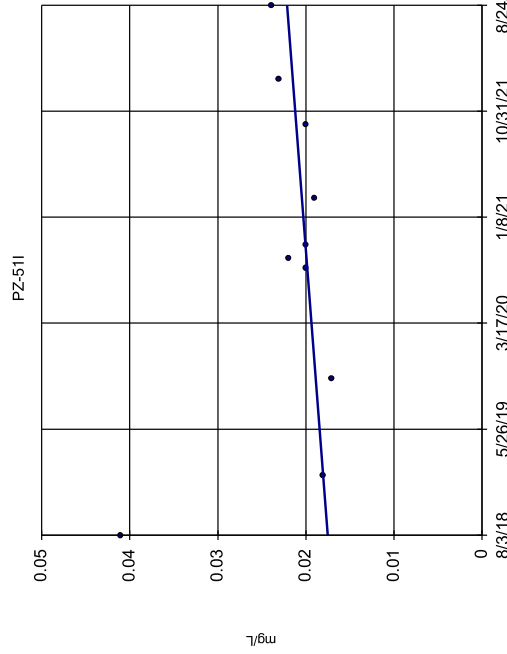
Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



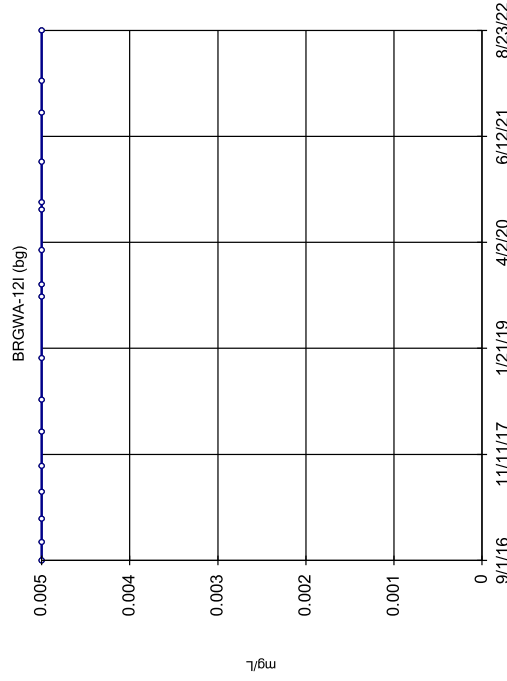
Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator



Constituent: Cobalt Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

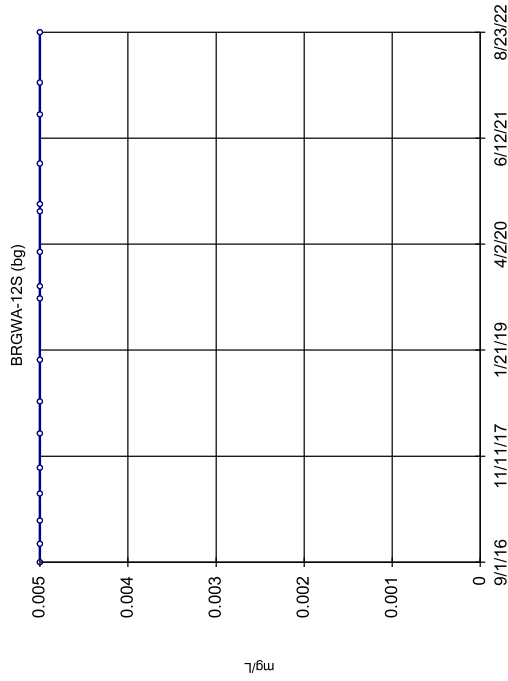
### Sen's Slope Estimator



Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

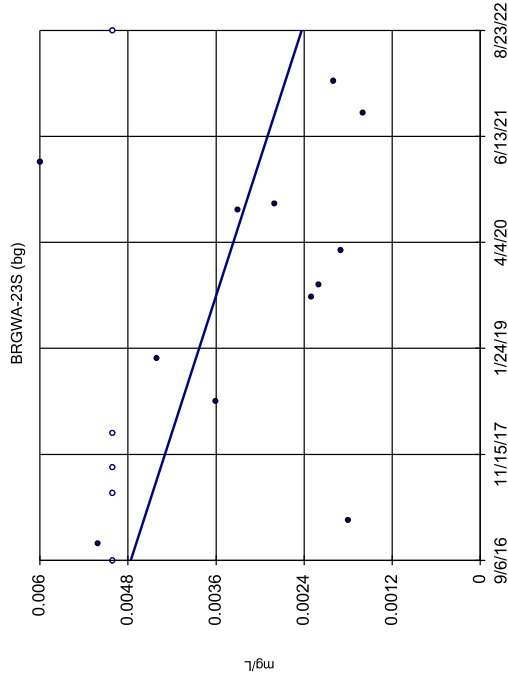


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

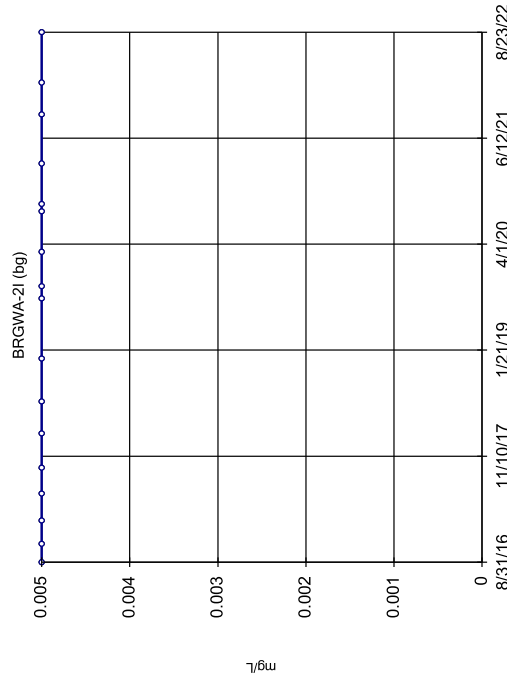


n = 17  
Slope = -0.0003899  
units per year.  
Mann-Kendall  
statistic = -33  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

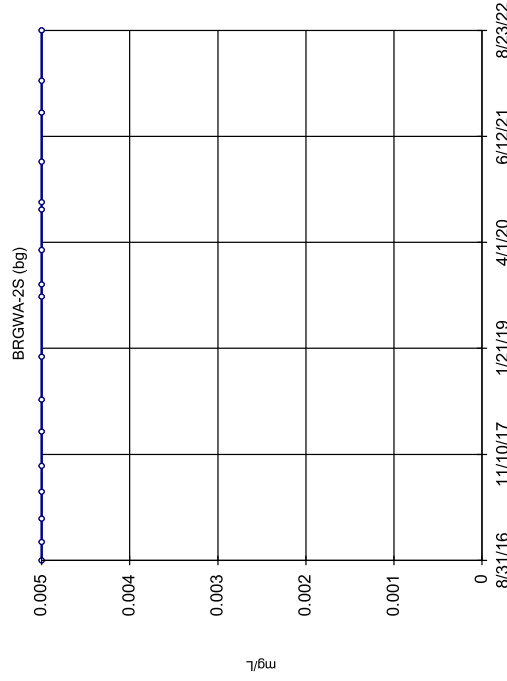


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

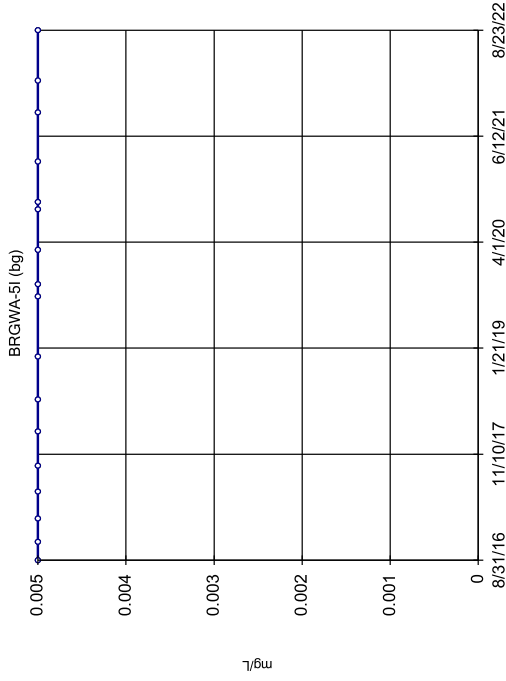


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

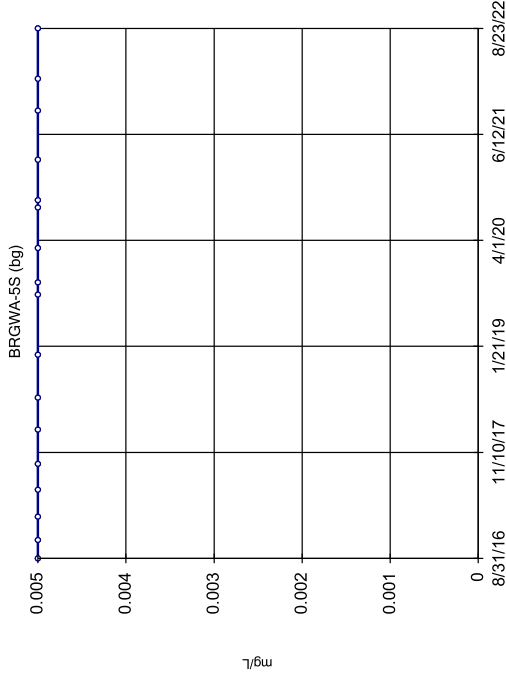


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

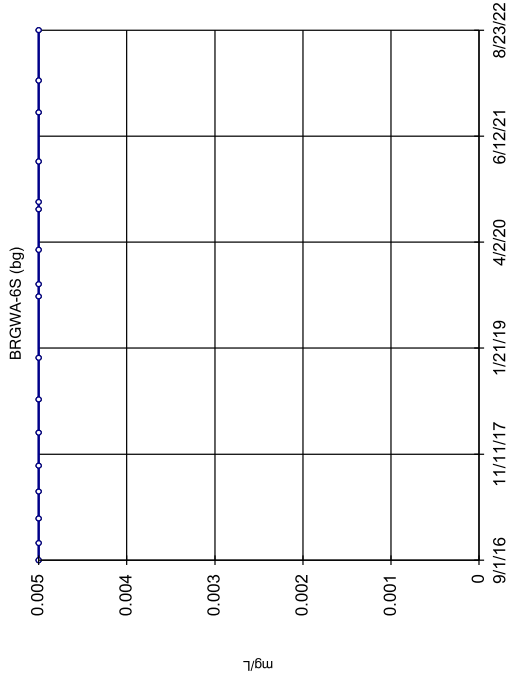


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator

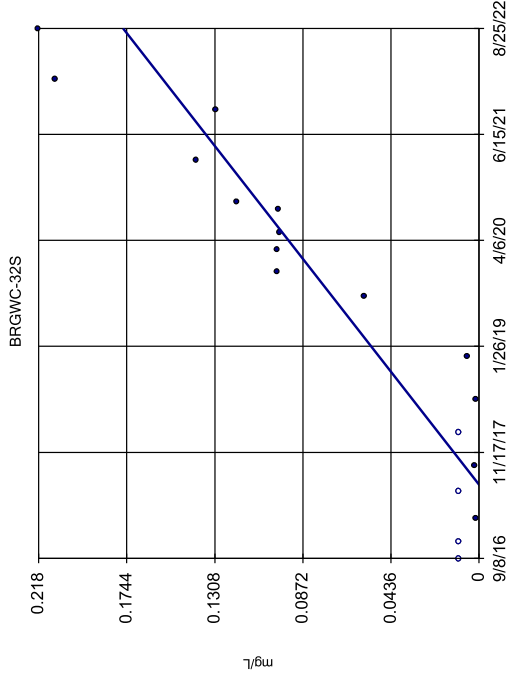


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sanitas™ v.9.6.36 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Sen's Slope Estimator



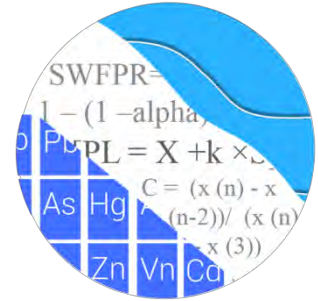
n = 18  
Slope = 0.03432  
units per year.  
Mann-Kendall  
statistic = 107  
critical = 68  
Increasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 1/9/2023 10:25 AM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

## GROUNDWATER STATS CONSULTING

July 31, 2023

Southern Company Services  
Attn: Mr. Joju Abraham  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308-3374



Re: Plant Branch Ponds B, C, D – January/February 2023 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting (GSC), formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the January/February 2023 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical Analysis of groundwater data for Georgia Power Company's Plant Branch Ponds B, C, and D. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009). The site is in Assessment Monitoring.

Sampling began for Appendix III and IV parameters in 2016 for most wells. However, sampling for wells BRGWC-45, BRGWC-47, BRGWC-50 and BRGWC-52I began in 2018, and at least 8 background samples have been collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** BRGWA-2I, BRGWA-2S, BRGWA-5I, BRGWA-5S, BRGWA-6S, BRGWA-12I, BRGWA-12S, and BRGWA-23S
- **Downgradient wells:** BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I
- **Assessment wells:** PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I, PZ-58I, PZ-59I, PZ-60I, PZ-61I, PZ-62I, PZ-63I, PZ-64I, PZ-65I, PZ-66I, PZ-68D, and PZ-69I

Data from assessment wells are evaluated using confidence intervals when a minimum of 4 samples are available.

Data were sent electronically to GSC, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to GSC.

The Coal Combustion Residuals (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 and assessment well/constituent pairs with 100% non-detects follows this letter. A substitution of the most recent reporting limit is used for non-detect data.

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). Assessment well data are included on the time series graphs, and with the confidence intervals when a minimum of 4 samples are available as discussed above. 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. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows 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 site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

## Summary of Statistical Methods – Appendix III Parameters:

Based on the earlier evaluation described above, the following method was selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, 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 false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent 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 (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- 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 most 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 interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect 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.

## **Summary of Background Screening – Conducted in March 2019**

### Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified either visually or by Tukey's test, flagged in the computer database with "o" and deselected prior to construction of statistical limits. A list of flagged values is provided in the outlier summary. Although outliers are screened for all wells, only outliers in upgradient wells will affect the interwell prediction limits. The current list of outliers includes a few additional measurements that were not flagged as outliers in the previous background screening list for Appendix III parameters.

When suspected outliers were evaluated using the Tukey box plot method during the previous screening, several outliers were identified. In cases where the most recent value was identified as an outlier, values were not flagged in the database as they may represent a future trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. Note that the reporting limit for boron during the March 2019 event was 0.1 mg/L; however, the historical reporting limit of 0.04 mg/L was substituted at that time for all non-detects which provided more conservative (lower) statistical limits.

### Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits

will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

### Trend Tests

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses, included with the background screening report, showed a number of statistically significant decreasing trends for the Appendix III parameters. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets.

### Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified no variation among upgradient well data for fluoride, making this constituent eligible for interwell analyses. Variation was noted for boron, calcium, chloride, pH, sulfate, and TDS. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.



## Evaluation of Appendix III Parameters – January/February 2023

### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through January 2023 (Figure D). Background (upgradient) well data were re-assessed for potential outliers during this analysis and no new values were flagged. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The January 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

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 resamples confirm the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Prediction limit exceedances were noted for several Appendix III parameters. Exceedances were identified for the following well/constituent pairs:

- Boron: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50, and BRGWC-52I
- Calcium: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I
- Chloride: BRGWC-25I, BRGWC-45, BRGWC-50, and BRGWC-52I
- Fluoride: BRGWC-50
- pH (lower limit): BRGWC-29I and BRGWC-50
- Sulfate: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I
- TDS: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, and BRGWC-52I

## Trend Test Evaluation – Appendix III

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 E). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site which is an indication of variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter and statistically significant trends were identified for the following well/constituent pairs:

### Increasing:

- Calcium: BRGWC-30I
- Sulfate: BRGWC-30I
- TDS: BRGWC-30I

### Decreasing:

- Boron: BRGWC-27I and BRGWC-29I
- Calcium: BRGWA-23S (upgradient), BRGWC-25I, BRGWC-27I, and BRGWC-45
- Chloride: BRGWA-12I (upgradient), BRGWA-23S (upgradient), BRGWA-5I (upgradient), BRGWC-25I, BRGWC-45, BRGWC-50, and BRGWC-52I
- pH: BRGWA-23S (upgradient), BRGWA-2I (upgradient), and BRGWA-2S (upgradient)
- Sulfate: BRGWA-12I (upgradient), BRGWA-12S (upgradient), BRGWC-25I, BRGWC-27I, and BRGWC-32S
- TDS: BRGWA-23S (upgradient), BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-32S, BRGWC-45, BRGWC-47, and BRGWC-50

## **Evaluation of Appendix IV Parameters – January/February 2023**

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

## Interwell Upper Tolerance Limits

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through January 2023 for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

## Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G). Note that due to the steady increase in concentrations for antimony at upgradient well BRGWA-12I, the MCL was used in lieu of the Background limit for antimony to maintain a GWPS that is conservative from a regulatory perspective.

## Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well with detections (Figure H). 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. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified.

Statistical exceedances were identified for the following well/constituent pairs:

- Beryllium: PZ-58I and PZ-60I
- Cadmium: BRGWC-50 and PZ-60I
- Cobalt: BRGWC-50, PZ-51I, PZ-58I, PZ-60I, and PZ-61I
- Selenium: BRGWC-32S

When evaluating the entire record of data for selenium at downgradient well BRGWC-32S, a steady increasing trend in concentrations since 2019 was noted. Therefore, the confidence interval evaluates data since 2019, and the confidence interval was found to exceed its respective GWPS of 0.05 mg/L.

#### Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances 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 I). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of variability in groundwater quality unrelated to practices at the site. Note that the trend tests have meaningful results once well/constituent pairs have greater than 5 samples. A summary of the Appendix IV trend test results follows this letter. The following statistically significant trends were identified:

##### Increasing

- Selenium: BRGWC-32S

##### Decreasing

- Cadmium: BRGWC-50
- Cobalt: BRGWA-2S, BRGWA-12I, and BRGWA-12S (all upgradient)

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Branch Ponds B, C, D. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew T. Collins  
Project Manager



Kristina L. Rayner  
Senior Statistician

# Date Ranges

Date: 3/20/2023 2:07 PM

Plant Branch Client: Southern Company Data: Plant Branch AP

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Selenium (mg/L)

BRGWC-32S overall:8/27/2019-1/24/2023

# 100% Non-Detects: Appendix IV Downgradient & Assessment

Analysis Run 3/20/2023 1:58 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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## Antimony (mg/L)

BRGWC-25I, BRGWC-27I, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-63I, PZ-62I, PZ-66I, PZ-65I, PZ-64I, PZ-69I

## Arsenic (mg/L)

PZ-57I, PZ-63I, PZ-62I

## Beryllium (mg/L)

BRGWC-25I, BRGWC-30I, BRGWC-32S, BRGWC-52I, PZ-51D, PZ-51S, PZ-63I, PZ-68D, PZ-69I

## Cadmium (mg/L)

BRGWC-25I, BRGWC-29I, BRGWC-52I, PZ-50D, PZ-51D, PZ-51S, PZ-63I, PZ-66I, PZ-68D, PZ-69I

## Chromium (mg/L)

PZ-50D, PZ-51D, PZ-57I, PZ-58I, PZ-60I, PZ-63I, PZ-62I, PZ-66I, PZ-64I, PZ-68D

## Lead (mg/L)

BRGWC-32S, PZ-51S, PZ-57I, PZ-60I, PZ-59I, PZ-63I, PZ-62I, PZ-66I, PZ-64I, PZ-68D, PZ-69I

## Lithium (mg/L)

BRGWC-25I

## Mercury (mg/L)

BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I, PZ-50D, PZ-51D, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-63I, PZ-62I, PZ-66I, PZ-64I, PZ-68D, PZ-69I

## Molybdenum (mg/L)

BRGWC-27I, BRGWC-29I, BRGWC-32S, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-65I, PZ-69I

## Selenium (mg/L)

BRGWC-52I, PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I, PZ-63I, PZ-62I, PZ-68D

## Thallium (mg/L)

BRGWC-25I, BRGWC-27I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I, PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I, PZ-59I, PZ-63I, PZ-62I, PZ-66I, PZ-64I, PZ-68D, PZ-69I

# Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:47 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)	BRGWC-25I	0.068	n/a	1/26/2023	1.45	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	1/25/2023	1.14	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	1/26/2023	1.07	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	1/26/2023	2.17	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	1/24/2023	1.11	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	1/26/2023	0.661	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	1/25/2023	0.383	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	1/25/2023	1.79	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	1/26/2023	57.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	1/25/2023	55.7	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	1/26/2023	68	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	1/26/2023	361	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	1/24/2023	46.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	1/25/2023	34.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	1/26/2023	331	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	1/25/2023	216	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	1/25/2023	36.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	1/26/2023	6.96	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	1/25/2023	27.4	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	1/25/2023	14.7	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	1/25/2023	6.35	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	1/25/2023	0.432	Yes	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.044	5.572	1/26/2023	4.3	Yes	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.044	5.572	1/25/2023	5.18	Yes	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	1/26/2023	182	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	1/25/2023	150	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	1/26/2023	293	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	1/26/2023	1030	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	1/24/2023	247	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	1/25/2023	102	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	1/26/2023	1310	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	1/25/2023	1290	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	1/25/2023	145	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	195	n/a	1/26/2023	339	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	195	n/a	1/25/2023	260	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	195	n/a	1/26/2023	419	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	195	n/a	1/26/2023	1680	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	195	n/a	1/24/2023	425	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	195	n/a	1/25/2023	251	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	195	n/a	1/26/2023	2010	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	195	n/a	1/25/2023	2040	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	195	n/a	1/25/2023	276	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2



# Appendix III Interwell Prediction Limits - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 2/27/2023, 3:47 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)	BRGWC-25I	0.068	n/a	1/26/2023	1.45	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	1/25/2023	1.14	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	1/26/2023	1.07	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	1/26/2023	2.17	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	1/24/2023	1.11	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-45	0.068	n/a	1/25/2023	0.0355	No	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	1/26/2023	0.661	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	1/25/2023	0.383	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	1/25/2023	1.79	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	1/26/2023	57.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	1/25/2023	55.7	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	1/26/2023	68	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	1/26/2023	361	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	1/24/2023	46.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	1/25/2023	34.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	1/26/2023	331	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	1/25/2023	216	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	1/25/2023	36.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	1/26/2023	6.96	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-27I	5.8	n/a	1/25/2023	3.81	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	1/26/2023	5.59	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-30I	5.8	n/a	1/26/2023	3.82	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-32S	5.8	n/a	1/24/2023	4.49	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	1/25/2023	27.4	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-47	5.8	n/a	1/26/2023	4.96	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	1/25/2023	14.7	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	1/25/2023	6.35	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-25I	0.42	n/a	1/26/2023	0.202	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-27I	0.42	n/a	1/25/2023	0.152	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-29I	0.42	n/a	1/26/2023	0.0935J	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-30I	0.42	n/a	1/26/2023	0.167	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-32S	0.42	n/a	1/24/2023	0.082J	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-45	0.42	n/a	1/25/2023	0.163	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-47	0.42	n/a	1/26/2023	0.117	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	1/25/2023	0.432	Yes	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-52I	0.42	n/a	1/25/2023	0.169	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-25I	7.044	5.572	1/26/2023	6.18	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-27I	7.044	5.572	1/25/2023	5.63	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
<b>pH, Field (S.U.)</b>	<b>BRGWC-29I</b>	<b>7.044</b>	<b>5.572</b>	<b>1/26/2023</b>	<b>4.3</b>	<b>Yes</b>	<b>154</b>	<b>6.308</b>	<b>0.3838</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0004179</b>	<b>Param Inter 1 of 2</b>
pH, Field (S.U.)	BRGWC-30I	7.044	5.572	1/26/2023	6.28	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-32S	7.044	5.572	1/24/2023	6.05	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-45	7.044	5.572	1/25/2023	5.82	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-47	7.044	5.572	1/26/2023	5.65	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
<b>pH, Field (S.U.)</b>	<b>BRGWC-50</b>	<b>7.044</b>	<b>5.572</b>	<b>1/25/2023</b>	<b>5.18</b>	<b>Yes</b>	<b>154</b>	<b>6.308</b>	<b>0.3838</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0004179</b>	<b>Param Inter 1 of 2</b>
pH, Field (S.U.)	BRGWC-52I	7.044	5.572	1/25/2023	6.25	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	1/26/2023	182	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	1/25/2023	150	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	1/26/2023	293	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	1/26/2023	1030	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	1/24/2023	247	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	1/25/2023	102	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	1/26/2023	1310	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	1/25/2023	1290	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	1/25/2023	145	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	195	n/a	1/26/2023	339	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	195	n/a	1/25/2023	260	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	195	n/a	1/26/2023	419	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	195	n/a	1/26/2023	1680	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	195	n/a	1/24/2023	425	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	195	n/a	1/25/2023	251	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	195	n/a	1/26/2023	2010	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	195	n/a	1/25/2023	2040	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	195	n/a	1/25/2023	276	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:54 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-27I	-0.1068	-74	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-29I	-0.1199	-77	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-23S (bg)	-1.254	-75	-63	Yes	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-25I	-4.496	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-27I	-3.798	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-30I	30.91	113	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-45	-2.192	-74	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-12I (bg)	-0.1919	-99	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-23S (bg)	-0.1862	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.16	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-25I	-0.5341	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-45	-8.069	-89	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-50	-2.127	-94	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-52I	-0.3178	-74	-63	Yes	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-23S (bg)	-0.03505	-75	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.08596	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.04386	-89	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12I (bg)	-0.2108	-113	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12S (bg)	-0.126	-88	-68	Yes	18	16.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-25I	-31.53	-83	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-27I	-21.15	-104	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-30I	60.14	76	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-32S	-30.5	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-23S (bg)	-10.83	-69	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-25I	-41.9	-100	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-27I	-25.83	-94	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-29I	-53.93	-68	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-30I	115.2	90	63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-32S	-44.27	-93	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-45	-25.56	-99	-68	Yes	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-47	-51.51	-64	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-50	-90.66	-74	-63	Yes	17	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:54 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-12I (bg)	-0.00006578	-7	-63	No	17	17.65	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-12S (bg)	0	-7	-63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-23S (bg)	0.002257	25	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2I (bg)	0.0003815	30	63	No	17	29.41	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-1	-63	No	17	88.24	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-4	-63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-25I	-0.07373	-49	-63	No	17	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-27I</b>	<b>-0.1068</b>	<b>-74</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>BRGWC-29I</b>	<b>-0.1199</b>	<b>-77</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-30I	0.04094	31	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-32S	-0.05402	-48	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-47	0.02765	59	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-50	0.008291	29	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-52I	0.03944	30	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12I (bg)	-0.2348	-12	-68	No	18	5.556	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12S (bg)	0.1273	28	68	No	18	5.556	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-1.254</b>	<b>-75</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>5.882</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWA-2I (bg)	0.4268	41	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.111	46	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.1199	19	63	No	17	5.882	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-25I</b>	<b>-4.496</b>	<b>-84</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BRGWC-27I</b>	<b>-3.798</b>	<b>-76</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-29I	-5.819	-52	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-30I</b>	<b>30.91</b>	<b>113</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-32S	-3.741	-60	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-45</b>	<b>-2.192</b>	<b>-74</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-47	0.2435	4	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-50	-6.589	-50	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-52I	-0.03805	0	58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.1919</b>	<b>-99</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-12S (bg)	0.06545	54	68	No	18	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.1862</b>	<b>-76</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-2I (bg)	-0.03727	-34	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	0	-9	-63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-5I (bg)</b>	<b>-0.16</b>	<b>-71</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-25I</b>	<b>-0.5341</b>	<b>-71</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-45</b>	<b>-8.069</b>	<b>-89</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-50</b>	<b>-2.127</b>	<b>-94</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-52I</b>	<b>-0.3178</b>	<b>-74</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	BRGWA-12I (bg)	-0.008595	-35	-74	No	19	21.05	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-12S (bg)	0	63	74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-23S (bg)	0	6	74	No	19	52.63	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-16	-74	No	19	52.63	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	56	74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	72	74	No	19	68.42	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-50	-0.06988	-28	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12I (bg)	-0.02367	-36	-87	No	21	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12S (bg)	-0.01755	-49	-81	No	20	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.03505</b>	<b>-75</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.08596</b>	<b>-87</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.04386</b>	<b>-89</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02414	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-29I	-0.01955	-32	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-50	-0.04142	-52	-81	No	20	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch   Client: Southern Company   Data: Plant Branch AP   Printed 2/27/2023, 3:54 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Sulfate (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2108</b>	<b>-113</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>-0.126</b>	<b>-88</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>16.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWA-23S (bg)	-6.651	-58	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.2241	-48	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	5	63	No	17	35.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.2579	-48	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-25I</b>	<b>-31.53</b>	<b>-83</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-27I</b>	<b>-21.15</b>	<b>-104</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-29I	-26.89	-61	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-30I</b>	<b>60.14</b>	<b>76</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-32S</b>	<b>-30.5</b>	<b>-84</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-45	-3.401	-56	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-47	-55.67	-61	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-50	-91.94	-53	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-52I	-8.859	-54	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12I (bg)	-5.117	-61	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12S (bg)	-5.699	-57	-68	No	18	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-10.83</b>	<b>-69</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-7.505	-40	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.6809	10	63	No	17	5.882	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-3.081	-32	-63	No	17	5.882	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-25I</b>	<b>-41.9</b>	<b>-100</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-27I</b>	<b>-25.83</b>	<b>-94</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-29I</b>	<b>-53.93</b>	<b>-68</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-30I</b>	<b>115.2</b>	<b>90</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>-44.27</b>	<b>-93</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-45</b>	<b>-25.56</b>	<b>-99</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-47</b>	<b>-51.51</b>	<b>-64</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>-90.66</b>	<b>-74</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWC-52I	-9.523	-38	-63	No	17	0	n/a	n/a	0.01	NP

# Upper Tolerance Limits Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0245	n/a	n/a	n/a	n/a 144	n/a	n/a	82.64	n/a	n/a	0.0006197	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 144	n/a	n/a	75.69	n/a	n/a	0.0006197	NP Inter(NDs)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a 144	n/a	n/a	0	n/a	n/a	0.0006197	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a 144	n/a	n/a	100	n/a	n/a	0.0006197	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a 146	n/a	n/a	98.63	n/a	n/a	0.0005593	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a 144	n/a	n/a	21.53	n/a	n/a	0.0006197	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0135	n/a	n/a	n/a	n/a 144	n/a	n/a	56.25	n/a	n/a	0.0006197	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	2.235	n/a	n/a	n/a	n/a 144	0.9087	0.2128	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.42	n/a	n/a	n/a	n/a 152	n/a	n/a	51.97	n/a	n/a	0.0004111	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 144	n/a	n/a	87.5	n/a	n/a	0.0006197	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a 144	n/a	n/a	40.28	n/a	n/a	0.0006197	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a 128	n/a	n/a	88.28	n/a	n/a	0.001408	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a 141	n/a	n/a	76.6	n/a	n/a	0.0007228	NP Inter(NDs)
Selenium (mg/L)	n/a	0.006	n/a	n/a	n/a	n/a 144	n/a	n/a	91.67	n/a	n/a	0.0006197	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 144	n/a	n/a	100	n/a	n/a	0.0006197	NP Inter(NDs)

<b>PLANT BRANCH POND BCD GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.025	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.016	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.014	0.014
Combined Radium, Total (pCi/L)	5		2.24	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.089	0.089
Mercury, Total (mg/L)	0.002		0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.008	0.1
Selenium, Total (mg/L)	0.05		0.006	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

*\*Highlighted cells indicate Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residuals*

*\*GWPS = Groundwater Protection Standard*

*\*\*MCL used in lieu of Background limit for Antimony*

# Appendix IV Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	PZ-58I	0.0441	0.0175	0.004	Yes	4	0.0308	0.005859	0	None	No	0.01	Param.
Beryllium (mg/L)	PZ-60I	0.08372	0.05903	0.004	Yes	4	0.07138	0.00544	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-50	0.03111	0.01142	0.005	Yes	18	0.02652	0.02449	0	None	In(x)	0.01	Param.
Cadmium (mg/L)	PZ-60I	0.01772	0.01438	0.005	Yes	4	0.01605	0.0007371	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-50	1.42	1.35	0.014	Yes	18	1.393	0.06506	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	PZ-51I	0.0239	0.018	0.014	Yes	11	0.02245	0.006531	0	None	No	0.006	NP (normality)
Cobalt (mg/L)	PZ-58I	0.5978	0.3227	0.014	Yes	4	0.4603	0.06059	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-60I	3.76	3.295	0.014	Yes	4	3.528	0.1024	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-61I	0.6826	0.3804	0.014	Yes	4	0.5315	0.06656	0	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-32S	0.1777	0.08972	0.05	Yes	11	0.1337	0.0528	0	None	No	0.01	Param.

# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-29I	0.003	0.0007	0.006	No	18	0.002872	0.0005421	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-30I	0.003	0.0013	0.006	No	18	0.002906	0.0004007	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.006	No	18	0.002911	0.0003771	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-45	0.003	0.0014	0.006	No	19	0.002476	0.0008773	63.16	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-47	0.003	0.00035	0.006	No	19	0.002861	0.000608	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-50	0.003	0.00092	0.006	No	18	0.002603	0.0009186	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-52I	0.003	0.00091	0.006	No	18	0.002622	0.0008751	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	PZ-50D	0.003	0.00056	0.006	No	5	0.002512	0.001091	80	None	No	0.031	NP (NDs)
Antimony (mg/L)	PZ-51D	0.003	0.0013	0.006	No	5	0.00266	0.0007603	80	None	No	0.031	NP (NDs)
Antimony (mg/L)	PZ-51I	0.003	0.00079	0.006	No	9	0.00241	0.0009139	66.67	None	No	0.002	NP (NDs)
Antimony (mg/L)	PZ-51S	0.003	0.00043	0.006	No	9	0.002581	0.000899	77.78	None	No	0.002	NP (NDs)
Arsenic (mg/L)	BRGWC-25I	0.005	0.00091	0.01	No	18	0.004042	0.001846	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-27I	0.005	0.0014	0.01	No	18	0.004117	0.001705	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-29I	0.005	0.0015	0.01	No	18	0.003533	0.001934	61.11	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-30I	0.005	0.00283	0.01	No	18	0.004471	0.001281	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	18	0.004752	0.001054	94.44	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-45	0.005	0.00096	0.01	No	19	0.003807	0.001846	68.42	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-47	0.002151	0.001064	0.01	No	19	0.002922	0.00179	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	BRGWC-50	0.005	0.00236	0.01	No	18	0.004026	0.001678	72.22	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-52I	0.005	0.0026	0.01	No	18	0.003732	0.001464	44.44	None	No	0.01	NP (normality)
Arsenic (mg/L)	PZ-50D	0.002686	0.0005992	0.01	No	5	0.002314	0.001625	20	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51D	0.003427	0.0009382	0.01	No	5	0.002746	0.001463	20	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51I	0.005	0.00222	0.01	No	9	0.004691	0.0009267	88.89	Kaplan-Meier	No	0.002	NP (NDs)
Arsenic (mg/L)	PZ-51S	0.005	0.002	0.01	No	9	0.004667	0.001	88.89	Kaplan-Meier	No	0.002	NP (NDs)
Arsenic (mg/L)	PZ-58I	0.005	0.00245	0.01	No	4	0.004362	0.001275	75	Kaplan-Meier	No	0.0625	NP (NDs)
Arsenic (mg/L)	PZ-60I	0.004558	0.001062	0.01	No	4	0.003905	0.001412	50	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-61I	0.003224	0.001776	0.01	No	4	0.003125	0.00129	25	Kaplan-Meier	No	0.01	Param.
Barium (mg/L)	BRGWC-25I	0.03448	0.0265	2	No	18	0.0307	0.006863	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-27I	0.01683	0.01509	2	No	18	0.01596	0.001436	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-29I	0.01913	0.01697	2	No	18	0.01805	0.001783	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-30I	0.0297	0.02273	2	No	18	0.02647	0.006136	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04095	0.02622	2	No	18	0.03358	0.01218	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-45	0.09258	0.07362	2	No	19	0.0831	0.0162	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-47	0.04219	0.03302	2	No	19	0.03761	0.007828	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-50	0.02087	0.01792	2	No	18	0.01939	0.00244	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-52I	0.02493	0.0166	2	No	18	0.02077	0.006881	0	None	No	0.01	Param.
Barium (mg/L)	PZ-50D	0.04389	0.02299	2	No	5	0.03344	0.006236	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51D	0.07996	0.04024	2	No	5	0.0601	0.01185	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51I	0.0161	0.01381	2	No	9	0.01496	0.001182	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51S	0.03369	0.02416	2	No	9	0.02892	0.004935	0	None	No	0.01	Param.
Barium (mg/L)	PZ-57I	0.024	0.0219	2	No	4	0.02248	0.001018	0	None	No	0.0625	NP (normality)
Barium (mg/L)	PZ-58I	0.01893	0.01497	2	No	4	0.01695	0.0008737	0	None	No	0.01	Param.
Barium (mg/L)	PZ-60I	0.02335	0.02035	2	No	4	0.02185	0.0006608	0	None	No	0.01	Param.
Barium (mg/L)	PZ-61I	0.03953	0.006803	2	No	4	0.01745	0.00777	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	BRGWC-27I	0.0005	0.0001	0.004	No	19	0.0002492	0.00018	31.58	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-29I	0.0012	0.00073	0.004	No	18	0.0009503	0.0002463	5.556	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-45	0.0005	0.000079	0.004	No	20	0.0004563	0.0001348	90	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-47	0.0005	0.000056	0.004	No	19	0.0004294	0.0001676	84.21	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-50	0.005961	0.003187	0.004	No	18	0.004574	0.002292	11.11	None	No	0.01	Param.
Beryllium (mg/L)	PZ-50D	0.0005	0.000059	0.004	No	5	0.0003656	0.0001984	60	None	No	0.031	NP (NDs)
Beryllium (mg/L)	PZ-51I	0.0005	0.000064	0.004	No	9	0.0002196	0.0002106	33.33	None	No	0.002	NP (normality)
Beryllium (mg/L)	PZ-57I	0.0009825	0.00003254	0.004	No	4	0.0005075	0.0002092	0	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>PZ-58I</b>	<b>0.0441</b>	<b>0.0175</b>	<b>0.004</b>	<b>Yes</b>	<b>4</b>	<b>0.0308</b>	<b>0.005859</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>PZ-60I</b>	<b>0.08372</b>	<b>0.05903</b>	<b>0.004</b>	<b>Yes</b>	<b>4</b>	<b>0.07138</b>	<b>0.00544</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	PZ-61I	0.002163	0.001247	0.004	No	4	0.001705	0.0002016	0	None	No	0.01	Param.



# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cadmium (mg/L)	BRGWC-27I	0.001	0.00009	0.005	No	19	0.0009032	0.0002901	89.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-30I	0.001	0.00014	0.005	No	19	0.0009063	0.0002808	89.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-32S	0.001	0.00011	0.005	No	19	0.0008574	0.0003385	84.21	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-45	0.001	0.0002	0.005	No	20	0.0008274	0.0003546	80	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-47	0.001	0.00017	0.005	No	19	0.0005647	0.0004251	47.37	None	No	0.01	NP (normality)
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>0.03111</b>	<b>0.01142</b>	<b>0.005</b>	<b>Yes</b>	<b>18</b>	<b>0.02652</b>	<b>0.02449</b>	<b>0</b>	<b>None</b>	<b>In(x)</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-51I	0.008831	0.001307	0.005	No	11	0.006738	0.009827	0	None	In(x)	0.01	Param.
Cadmium (mg/L)	PZ-57I	0.001474	0.0002059	0.005	No	4	0.00092	0.0003081	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	PZ-58I	0.004998	0.003477	0.005	No	4	0.004238	0.0003351	0	None	No	0.01	Param.
<b>Cadmium (mg/L)</b>	<b>PZ-60I</b>	<b>0.01772</b>	<b>0.01438</b>	<b>0.005</b>	<b>Yes</b>	<b>4</b>	<b>0.01605</b>	<b>0.0007371</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-61I	0.001333	-0.0001695	0.005	No	4	0.0005815	0.0003308	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-25I	0.01	0.0016	0.1	No	18	0.009032	0.002819	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-27I	0.01	0.003	0.1	No	18	0.009111	0.00261	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-29I	0.02	0.01	0.1	No	18	0.01056	0.002357	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-30I	0.014	0.0051	0.1	No	18	0.00995	0.001533	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-32S	0.01	0.0014	0.1	No	18	0.004928	0.004182	38.89	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-45	0.01	0.0014	0.1	No	19	0.008575	0.003384	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-47	0.01	0.0018	0.1	No	19	0.008113	0.003761	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-50	0.01	0.00098	0.1	No	18	0.006708	0.004337	61.11	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-52I	0.01	0.0017	0.1	No	18	0.009539	0.001956	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	PZ-51I	0.01	0.0008	0.1	No	9	0.007976	0.004017	77.78	None	No	0.002	NP (NDs)
Chromium (mg/L)	PZ-51S	0.01	0.00042	0.1	No	9	0.007894	0.004178	77.78	None	No	0.002	NP (NDs)
Chromium (mg/L)	PZ-61I	0.01	0.0077	0.1	No	4	0.009425	0.00115	75	None	No	0.0625	NP (NDs)
Cobalt (mg/L)	BRGWC-25I	0.006179	0.003753	0.014	No	18	0.005129	0.002134	5.556	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BRGWC-27I	0.01045	0.007688	0.014	No	19	0.009069	0.002359	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-29I	0.009583	0.006654	0.014	No	18	0.008224	0.002547	5.556	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-30I	0.00163	0.0008	0.014	No	19	0.007289	0.01456	15.79	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-32S	0.0025	0.001	0.014	No	19	0.001079	0.0003441	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-45	0.01302	0.005847	0.014	No	20	0.01189	0.01421	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-47	0.001618	0.0004568	0.014	No	19	0.00208	0.00304	21.05	Kaplan-Meier	In(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>BRGWC-50</b>	<b>1.42</b>	<b>1.35</b>	<b>0.014</b>	<b>Yes</b>	<b>18</b>	<b>1.393</b>	<b>0.06506</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Cobalt (mg/L)	BRGWC-52I	0.0015	0.00063	0.014	No	18	0.001361	0.0009415	61.11	None	No	0.01	NP (NDs)
Cobalt (mg/L)	PZ-50D	0.4233	-0.0007998	0.014	No	6	0.1477	0.19	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	PZ-51D	0.001	0.000306	0.014	No	6	0.000686	0.0003459	50	None	No	0.0155	NP (normality)
<b>Cobalt (mg/L)</b>	<b>PZ-51I</b>	<b>0.0239</b>	<b>0.018</b>	<b>0.014</b>	<b>Yes</b>	<b>11</b>	<b>0.02245</b>	<b>0.006531</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.006</b>	<b>NP (normality)</b>
Cobalt (mg/L)	PZ-51S	0.006822	0.002294	0.014	No	10	0.004558	0.002538	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-57I	0.2078	-0.04814	0.014	No	4	0.07985	0.05637	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>PZ-58I</b>	<b>0.5978</b>	<b>0.3227</b>	<b>0.014</b>	<b>Yes</b>	<b>4</b>	<b>0.4603</b>	<b>0.06059</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>PZ-60I</b>	<b>3.76</b>	<b>3.295</b>	<b>0.014</b>	<b>Yes</b>	<b>4</b>	<b>3.528</b>	<b>0.1024</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>PZ-61I</b>	<b>0.6826</b>	<b>0.3804</b>	<b>0.014</b>	<b>Yes</b>	<b>4</b>	<b>0.5315</b>	<b>0.06656</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	BRGWC-25I	1.679	0.6269	5	No	18	1.254	1.056	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-27I	1.425	0.6104	5	No	18	1.085	0.7821	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-29I	1.713	1.211	5	No	18	1.462	0.4144	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-30I	1.473	0.6591	5	No	18	1.13	0.7702	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.211	0.5003	5	No	18	0.8557	0.5874	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-45	0.9217	0.4144	5	No	19	0.6681	0.4332	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-47	1.728	0.763	5	No	19	1.331	0.9148	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-50	2.167	1.237	5	No	18	1.838	1.105	0	None	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-52I	2.821	1.472	5	No	18	2.386	1.682	0	None	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-50D	3.072	0.5596	5	No	5	1.816	0.7498	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51D	4.007	1.469	5	No	5	2.738	0.757	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51I	11.7	0.625	5	No	9	2.349	3.534	0	None	No	0.002	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-51S	5.233	0.04967	5	No	9	2.831	5.432	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-57I	4.471	-2.318	5	No	4	1.077	1.495	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-58I	5.52	0.1711	5	No	4	2.045	1.34	0	None	sqrt(x)	0.01	Param.

# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	PZ-60I	6.405	0.625	5	No	4	3.515	1.273	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-61I	4.614	-0.409	5	No	4	2.103	1.106	0	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-25I	0.27	0.15	4	No	19	0.2104	0.1297	5.263	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-27I	0.2562	0.1628	4	No	19	0.2095	0.07973	10.53	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-29I	0.2074	0.0983	4	No	19	0.1745	0.1191	10.53	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-30I	0.3248	0.1385	4	No	19	0.2572	0.2083	5.263	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.11	0.09	4	No	19	0.1063	0.03698	57.89	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-45	0.163	0.067	4	No	20	0.1757	0.225	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-47	0.28	0.1	4	No	20	0.2276	0.2515	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-50	0.7597	0.3559	4	No	19	0.6063	0.434	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-52I	0.2275	0.1358	4	No	18	0.1817	0.07574	5.556	None	No	0.01	Param.
Fluoride (mg/L)	PZ-50D	0.2446	0.08577	4	No	6	0.1595	0.06324	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-51D	0.3501	0.2139	4	No	6	0.282	0.04959	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51I	0.12	0.1	4	No	10	0.1029	0.02145	70	None	No	0.011	NP (NDs)
Fluoride (mg/L)	PZ-51S	0.1145	0.05779	4	No	9	0.08614	0.02936	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-57I	0.4156	-0.05908	4	No	4	0.1783	0.1045	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-58I	2.101	0.4237	4	No	4	1.263	0.3694	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-60I	2.66	0.7799	4	No	4	1.72	0.4141	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-61I	0.2137	-0.003234	4	No	4	0.1135	0.04975	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BRGWC-25I	0.002	0.00011	0.015	No	18	0.001895	0.0004455	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-27I	0.002	0.000063	0.015	No	18	0.001892	0.0004566	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-29I	0.002	0.00029	0.015	No	17	0.0007594	0.0007169	23.53	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-30I	0.002	0.00011	0.015	No	18	0.001895	0.0004455	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-45	0.002	0.000595	0.015	No	19	0.001638	0.0007266	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-47	0.002	0.00012	0.015	No	19	0.001697	0.0007202	84.21	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-50	0.002	0.0001	0.015	No	18	0.001192	0.0009359	55.56	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-52I	0.002	0.000042	0.015	No	18	0.001891	0.0004615	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	PZ-50D	0.002	0.000056	0.015	No	5	0.001611	0.0008694	80	None	No	0.031	NP (NDs)
Lead (mg/L)	PZ-51D	0.002	0.00013	0.015	No	5	0.001626	0.0008363	80	None	No	0.031	NP (NDs)
Lead (mg/L)	PZ-51I	0.002	0.00017	0.015	No	9	0.001614	0.0007665	77.78	None	No	0.002	NP (NDs)
Lead (mg/L)	PZ-58I	0.005	0.000894	0.015	No	4	0.002947	0.00237	50	None	No	0.0625	NP (normality)
Lead (mg/L)	PZ-61I	0.002056	-0.001726	0.015	No	4	0.001758	0.000421	50	Kaplan-Meier	x^6	0.01	Param.
Lithium (mg/L)	BRGWC-27I	0.0021	0.0012	0.089	No	18	0.003378	0.003651	22.22	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-29I	0.003589	0.003039	0.089	No	18	0.003314	0.0004547	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-30I	0.01838	0.01247	0.089	No	18	0.01565	0.005183	0	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	BRGWC-32S	0.0043	0.0021	0.089	No	18	0.00515	0.007326	11.11	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-45	0.003703	0.002923	0.089	No	18	0.003313	0.0006443	5.556	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-47	0.0448	0.04093	0.089	No	19	0.04286	0.003305	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-50	0.04481	0.03861	0.089	No	18	0.04183	0.005319	0	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	BRGWC-52I	0.008377	0.003492	0.089	No	18	0.007144	0.006372	5.556	None	ln(x)	0.01	Param.
Lithium (mg/L)	PZ-50D	0.02919	0.01717	0.089	No	5	0.02318	0.003586	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-51D	0.01013	-0.004012	0.089	No	5	0.008306	0.002317	0	None	x^6	0.01	Param.
Lithium (mg/L)	PZ-51I	0.02379	0.01886	0.089	No	9	0.02132	0.002554	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-51S	0.01	0.0012	0.089	No	9	0.009022	0.002933	88.89	None	No	0.002	NP (NDs)
Lithium (mg/L)	PZ-57I	0.04285	0.008651	0.089	No	4	0.02575	0.007531	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-58I	0.06221	0.03084	0.089	No	4	0.04653	0.00691	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-60I	0.1204	0.08824	0.089	No	4	0.1033	0.007274	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	PZ-61I	0.01379	0.007175	0.089	No	4	0.01048	0.001457	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-25I	0.0002	0.000083	0.002	No	16	0.0001827	0.00004795	87.5	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-27I	0.0002	0.00005	0.002	No	16	0.0001811	0.00005175	87.5	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-29I	0.0002	0.000098	0.002	No	16	0.0001755	0.00005373	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-30I	0.0002	0.000082	0.002	No	16	0.0001745	0.00005539	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0002	0.0001	0.002	No	16	0.0001795	0.0000442	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	PZ-51I	0.0002	0.000099	0.002	No	9	0.0001888	0.00003367	88.89	None	No	0.002	NP (NDs)
Molybdenum (mg/L)	BRGWC-25I	0.01	0.00092	0.1	No	17	0.006269	0.004597	58.82	None	No	0.01	NP (NDs)

# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	BRGWC-30I	0.01	0.0014	0.1	No	17	0.006941	0.004279	64.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-45	0.01	0.00076	0.1	No	18	0.008429	0.003614	83.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-47	0.01	0.000296	0.1	No	18	0.00892	0.003142	88.89	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-50	0.0022	0.001	0.1	No	17	0.001206	0.0006129	88.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-52I	0.01	0.001	0.1	No	17	0.005734	0.004082	41.18	None	No	0.01	NP (normality)
Molybdenum (mg/L)	PZ-50D	0.002242	0.0005211	0.1	No	5	0.001381	0.0005134	0	None	No	0.01	Param.
Molybdenum (mg/L)	PZ-51D	0.006741	-0.001157	0.1	No	5	0.002792	0.002356	0	None	No	0.01	Param.
Molybdenum (mg/L)	PZ-51I	0.01	0.000283	0.1	No	9	0.007844	0.004278	77.78	None	No	0.002	NP (NDs)
Selenium (mg/L)	BRGWC-25I	0.005	0.0021	0.05	No	18	0.004839	0.0006835	94.44	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-27I	0.005	0.0025	0.05	No	18	0.003906	0.00124	38.89	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-29I	0.005	0.0042	0.05	No	18	0.004839	0.001308	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-30I	0.005	0.0045	0.05	No	18	0.004639	0.0008452	77.78	None	No	0.01	NP (NDs)
<b>Selenium (mg/L)</b>	<b>BRGWC-32S</b>	<b>0.1777</b>	<b>0.08972</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0.1337</b>	<b>0.0528</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Selenium (mg/L)	BRGWC-45	0.005	0.0029	0.05	No	19	0.004889	0.0004818	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-47	0.005	0.002	0.05	No	19	0.004032	0.001486	68.42	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-50	0.005	0.002	0.05	No	18	0.003603	0.001415	44.44	None	No	0.01	NP (normality)
Selenium (mg/L)	PZ-58I	0.004763	0.0008017	0.05	No	4	0.002783	0.0008725	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-60I	0.006049	0.001336	0.05	No	4	0.003693	0.001038	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-61I	0.009924	-0.0002686	0.05	No	4	0.004828	0.002245	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-29I	0.002	0.00017	0.002	No	18	0.0006844	0.0008396	27.78	None	No	0.01	NP (normality)

# Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cadmium (mg/L)	BRGWC-50	-0.007206	-84	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12I (bg)	-0.001337	-106	-74	Yes	19	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12S (bg)	-0.001337	-106	-74	Yes	19	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003644	-88	-68	Yes	18	11.11	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWC-32S	0.03391	121	74	Yes	19	21.05	n/a	n/a	0.01	NP

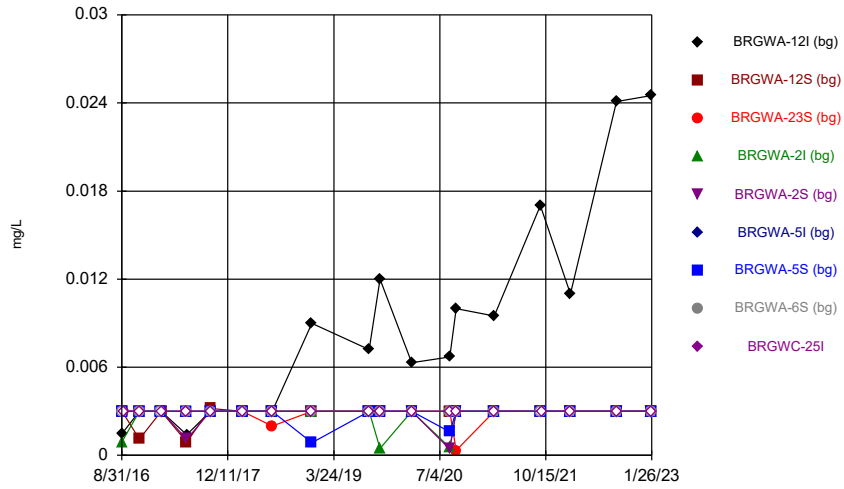
# Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-12I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-12S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-23S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	PZ-58I	0.009724	6	8	No	4	0	n/a	n/a	0.01	NP
Beryllium (mg/L)	PZ-60I	0.008136	4	8	No	4	0	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12I (bg)	0	-1	-74	No	19	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12S (bg)	0	-1	-74	No	19	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-23S (bg)	0	0	68	No	18	88.89	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2I (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2S (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5I (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5S (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-6S (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>-0.007206</b>	<b>-84</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cadmium (mg/L)	PZ-60I	-0.000301	-1	-8	No	4	0	n/a	n/a	0.01	NP
<b>Cobalt (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.001337</b>	<b>-106</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>-0.001337</b>	<b>-106</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-23S (bg)	-0.0006334	-66	-68	No	18	16.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	-0.001432	-61	-68	No	18	66.67	n/a	n/a	0.01	NP
<b>Cobalt (mg/L)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.0003644</b>	<b>-88</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>11.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-5I (bg)	-0.000106	-52	-58	No	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	-19	-68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	-0.001237	-50	-68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-50	0	24	68	No	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-51I	0.001261	18	34	No	11	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-58I	0.1052	6	8	No	4	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-60I	0.1351	4	8	No	4	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-61I	0.1073	6	8	No	4	0	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-23S (bg)	-0.0006266	-42	-68	No	18	33.33	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-6S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
<b>Selenium (mg/L)</b>	<b>BRGWC-32S</b>	<b>0.03391</b>	<b>121</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>21.05</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

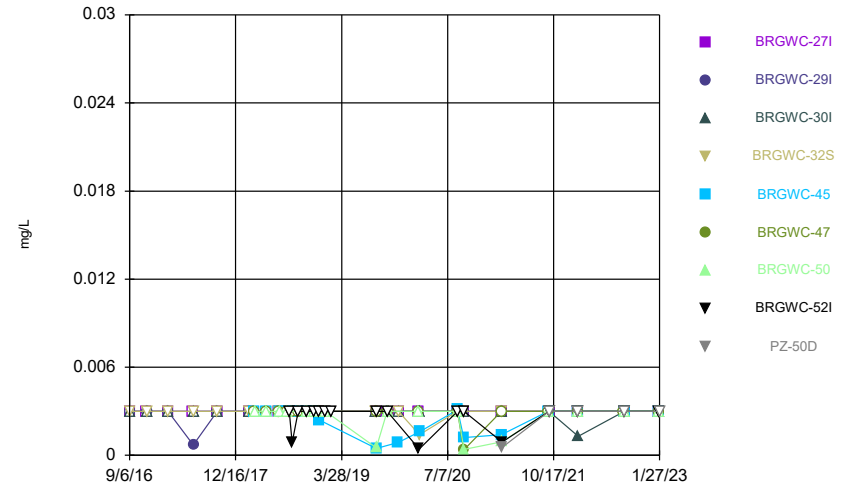
FIGURE A.

Time Series



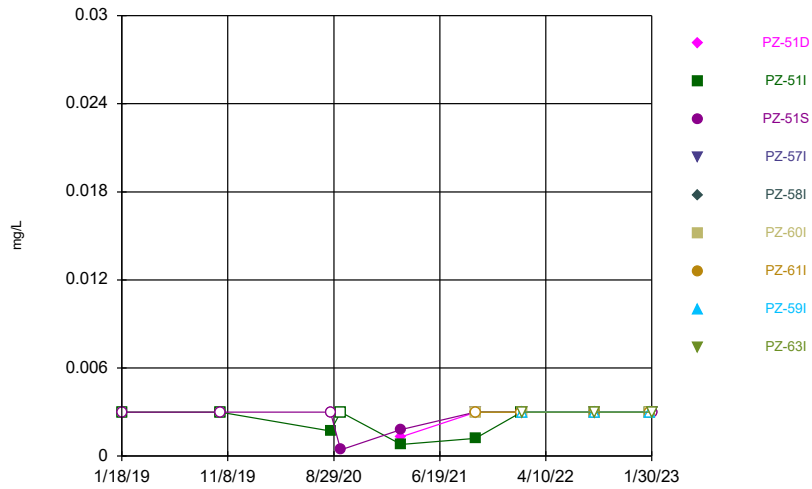
Constituent: Antimony Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



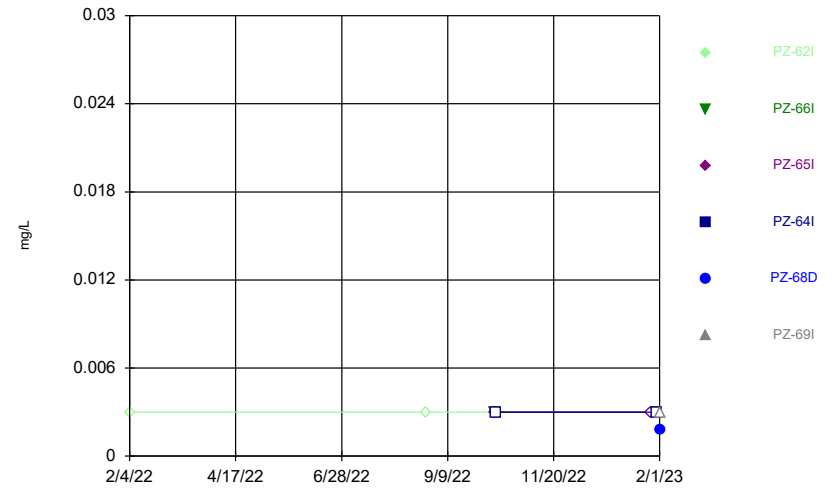
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



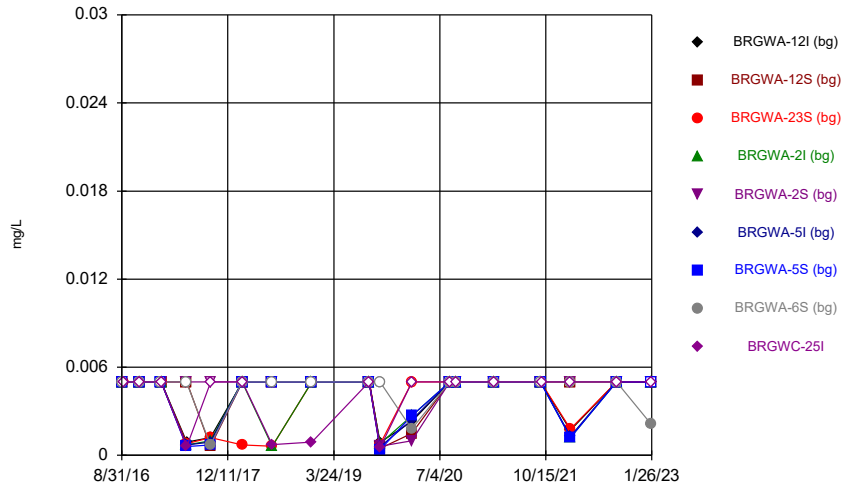
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



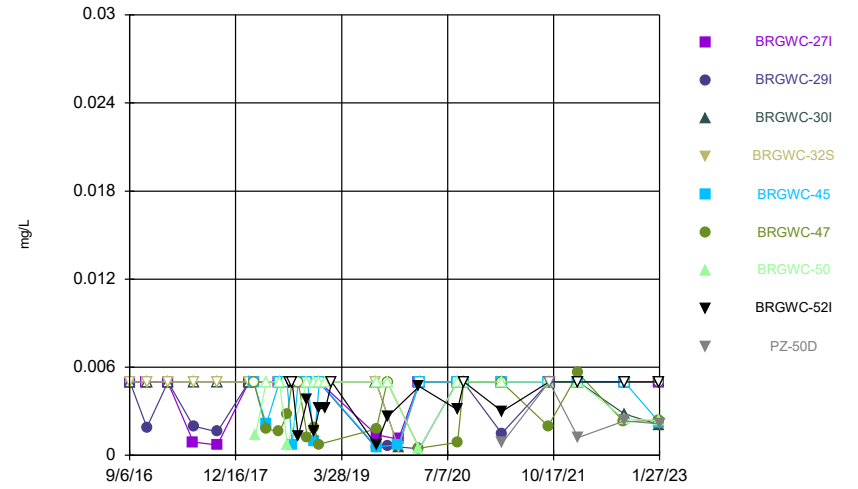
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



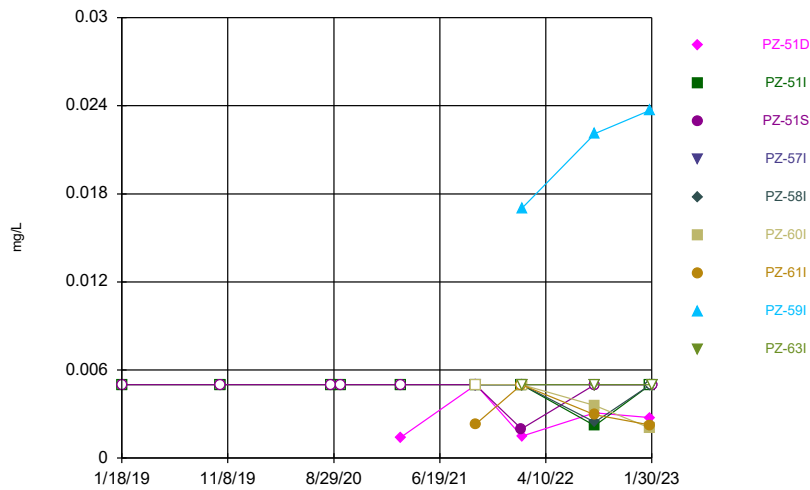
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



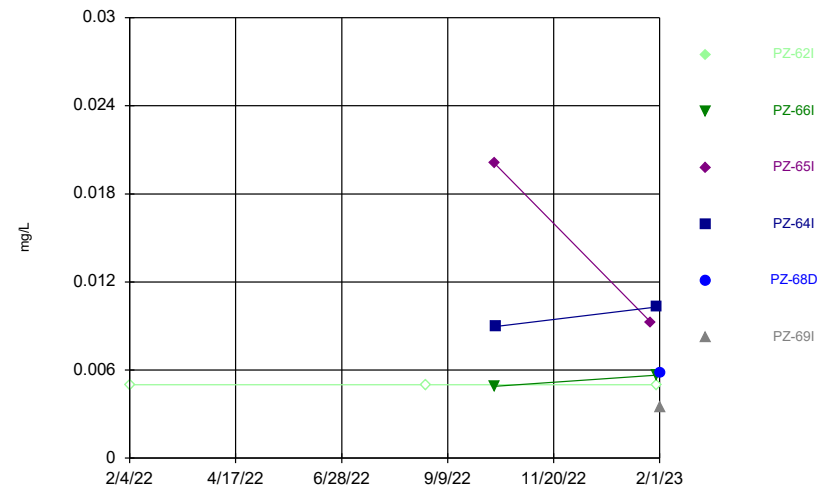
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Arsenic Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

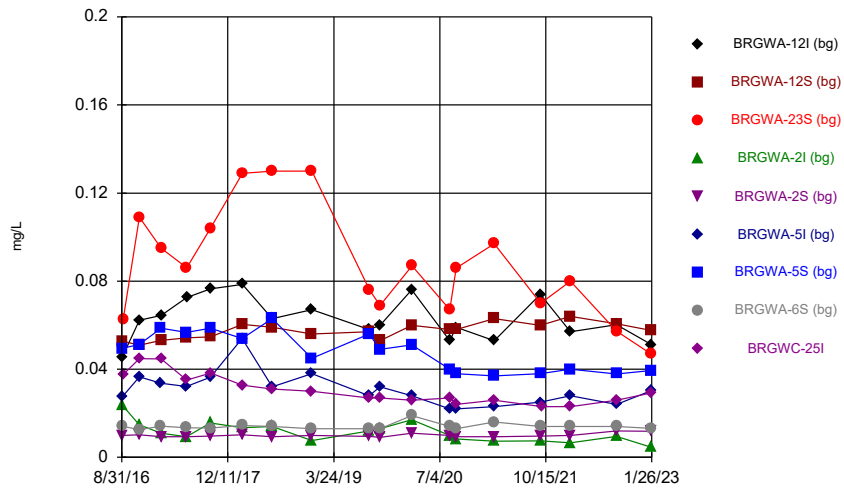
Time Series



Constituent: Arsenic Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

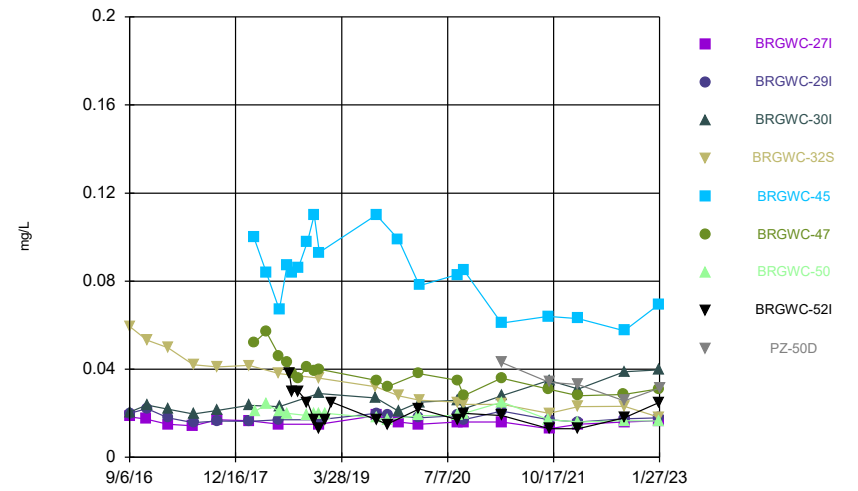


### Time Series



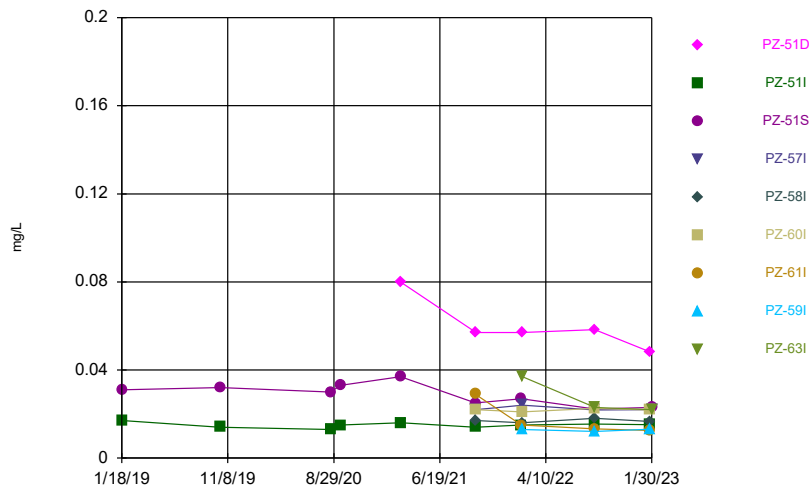
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



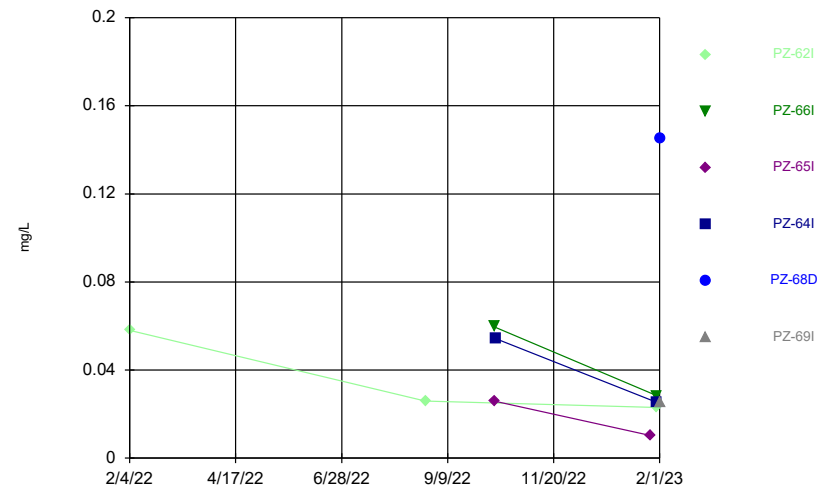
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### Time Series



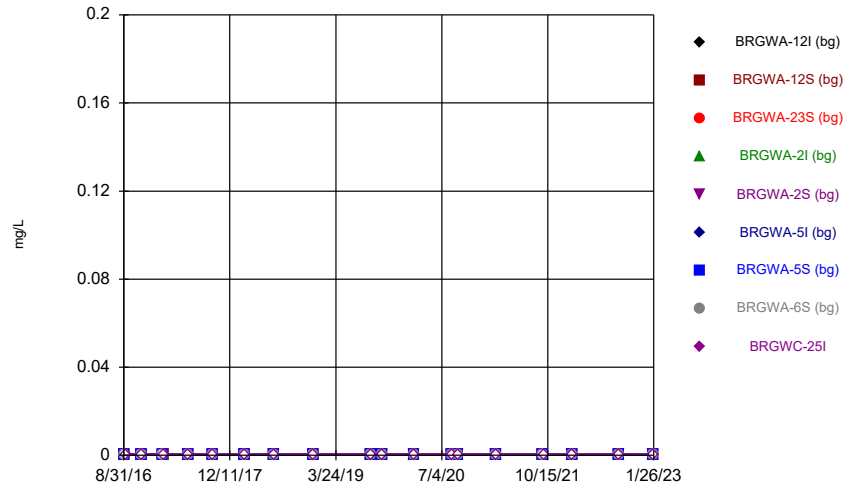
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



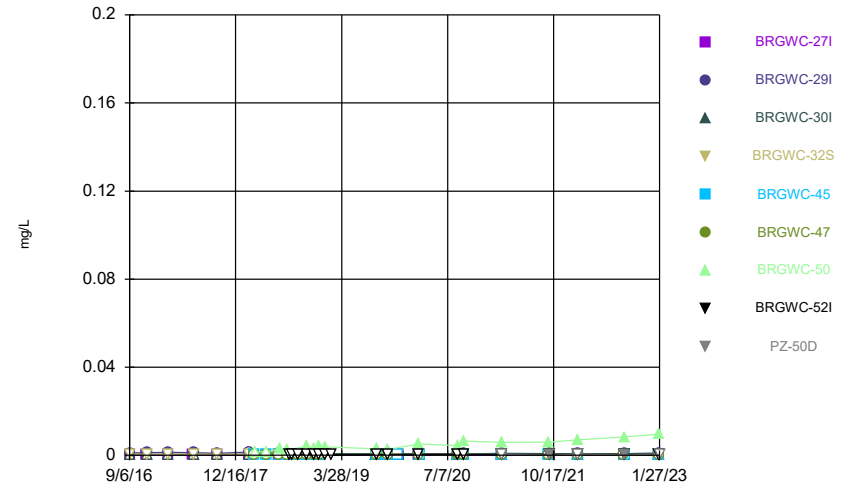
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



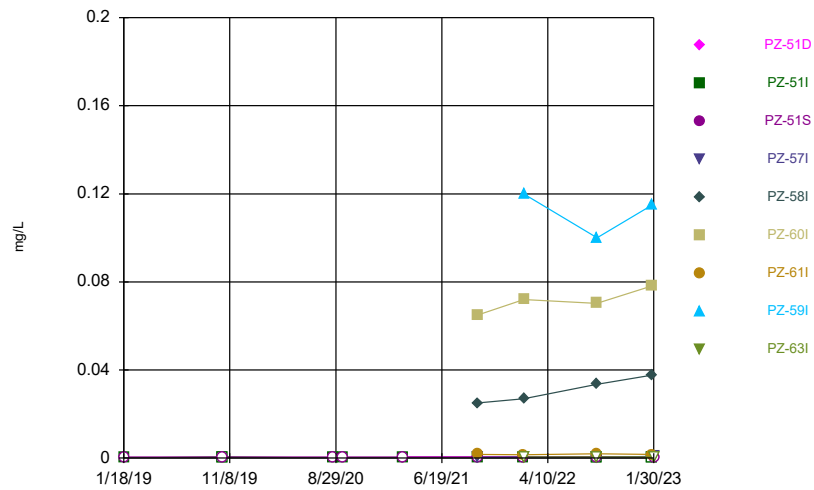
Constituent: Beryllium Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



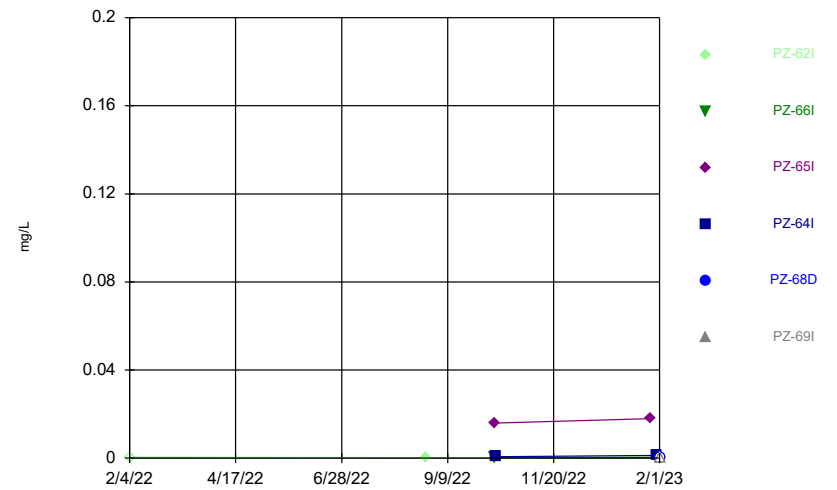
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



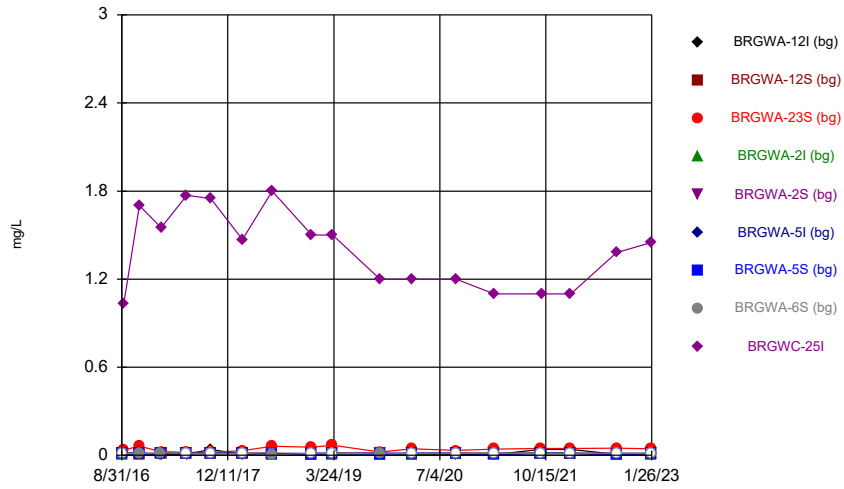
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



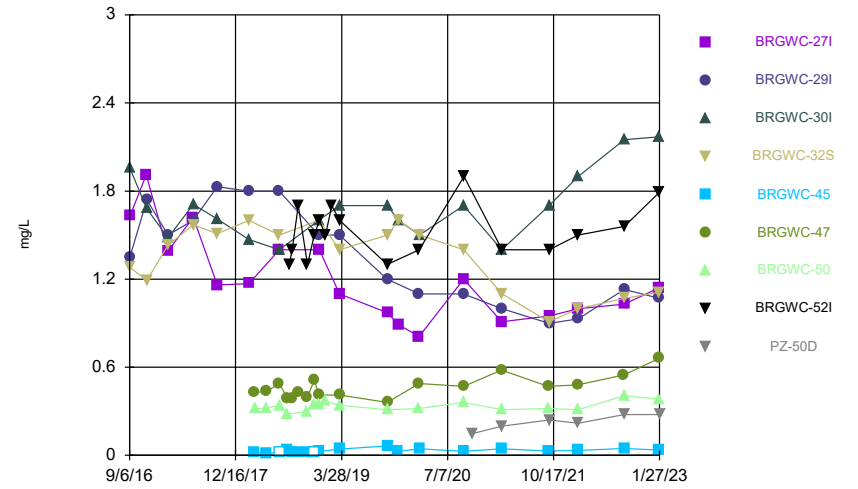
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



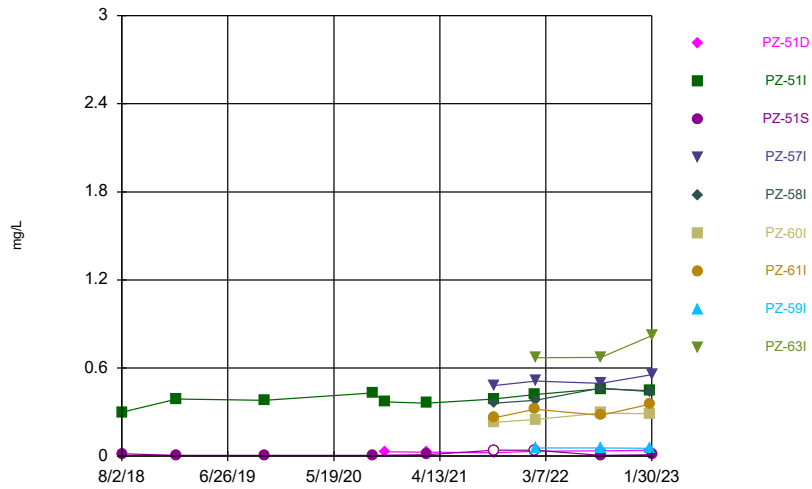
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



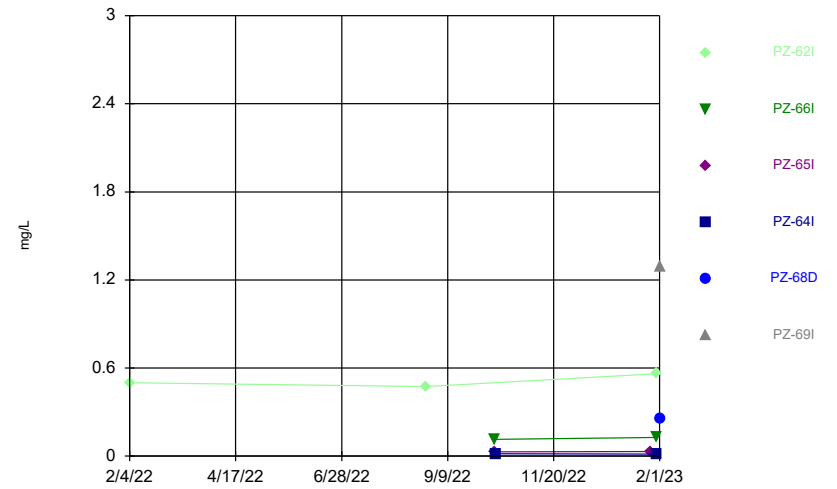
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



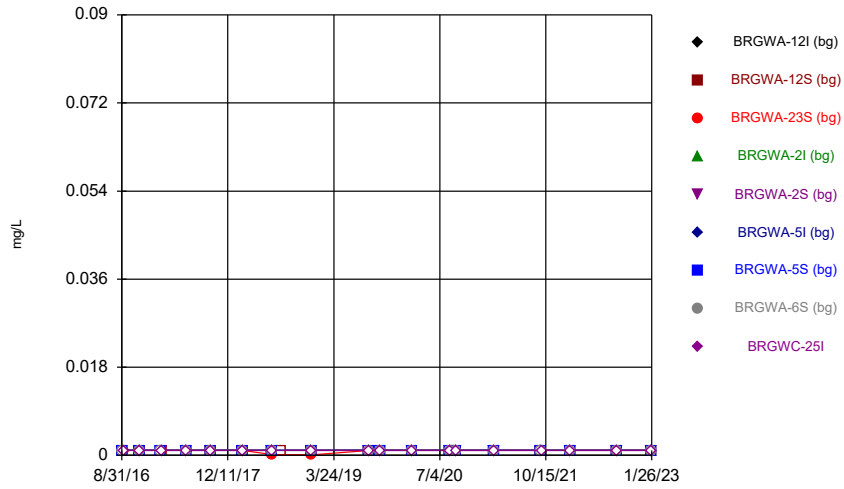
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



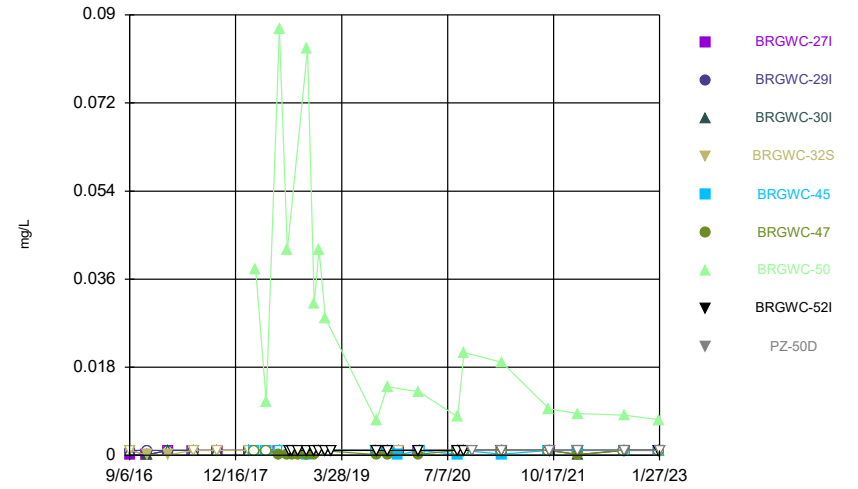
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



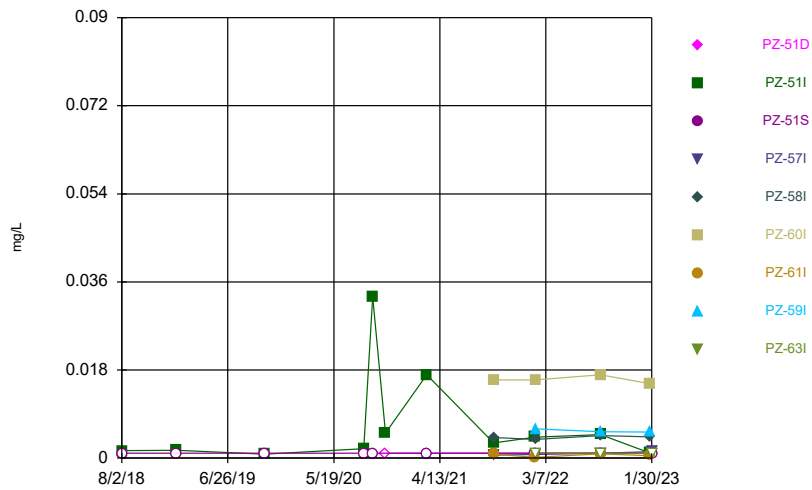
Constituent: Cadmium Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



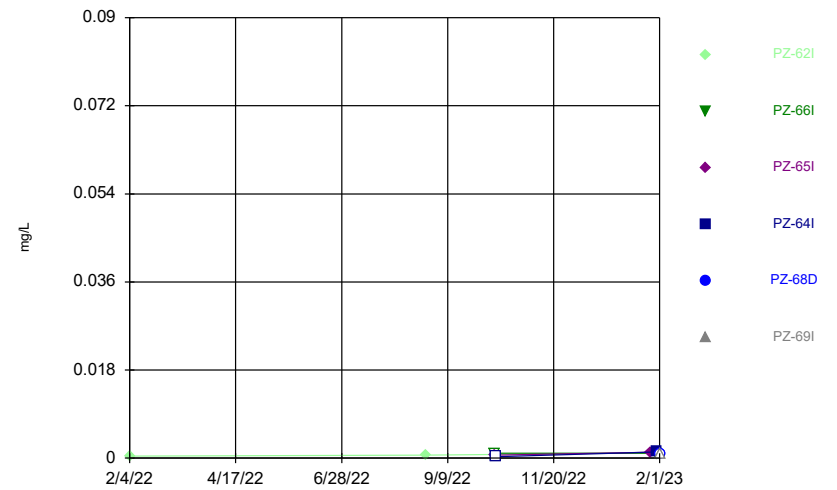
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



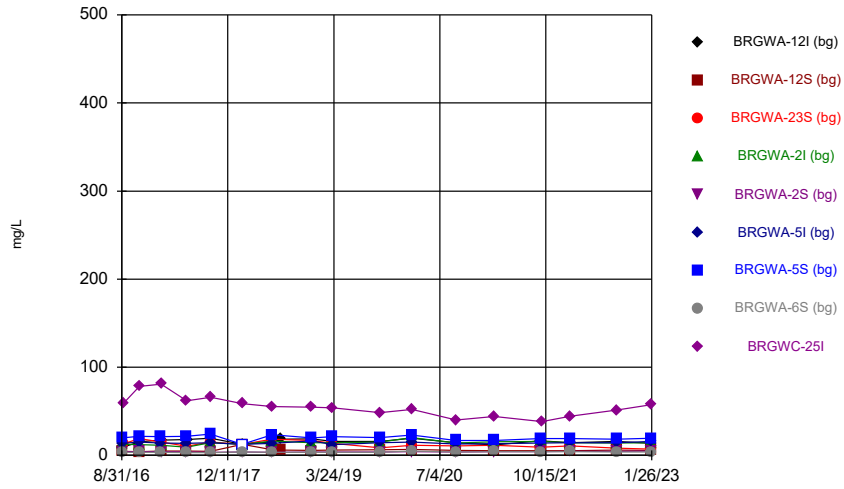
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



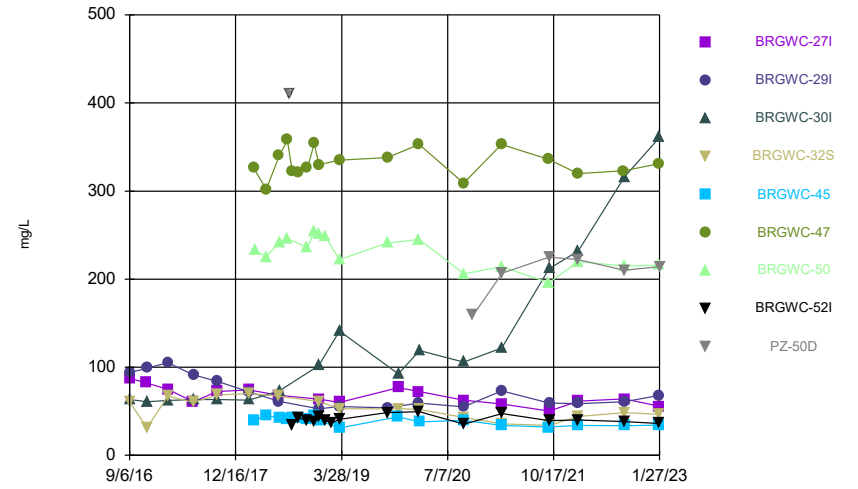
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



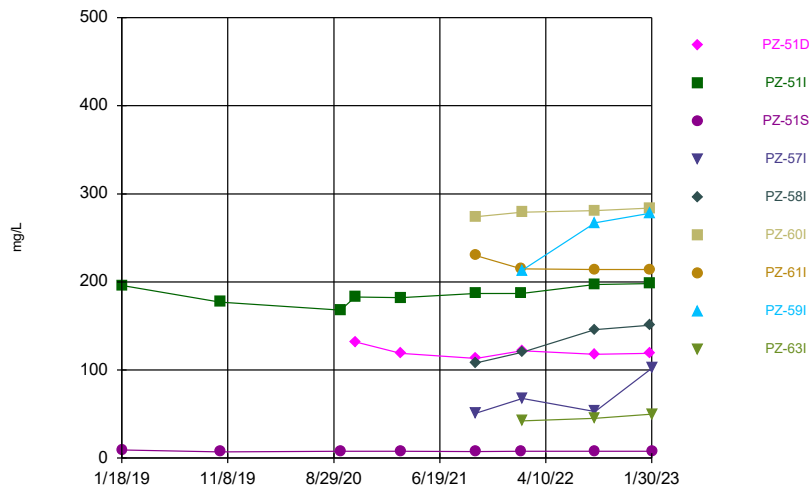
Constituent: Calcium Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



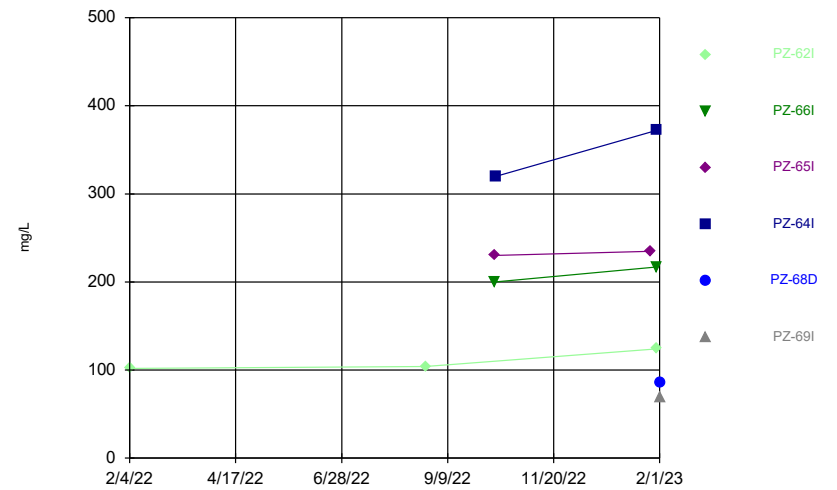
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



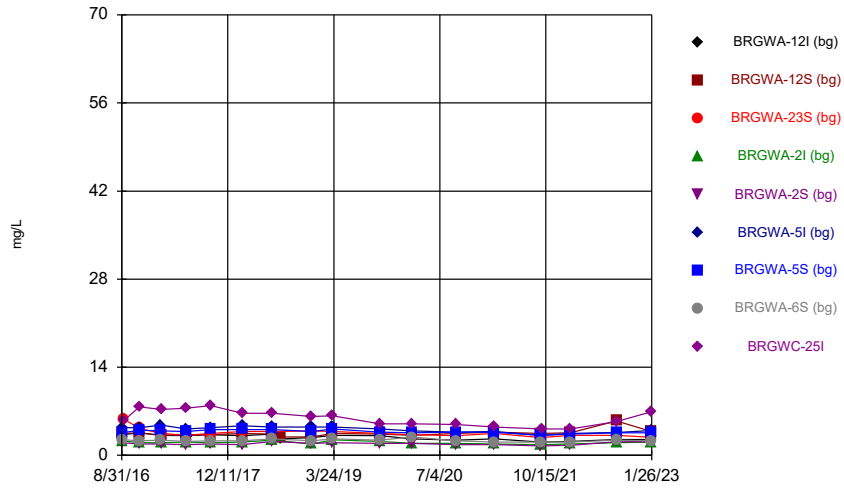
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



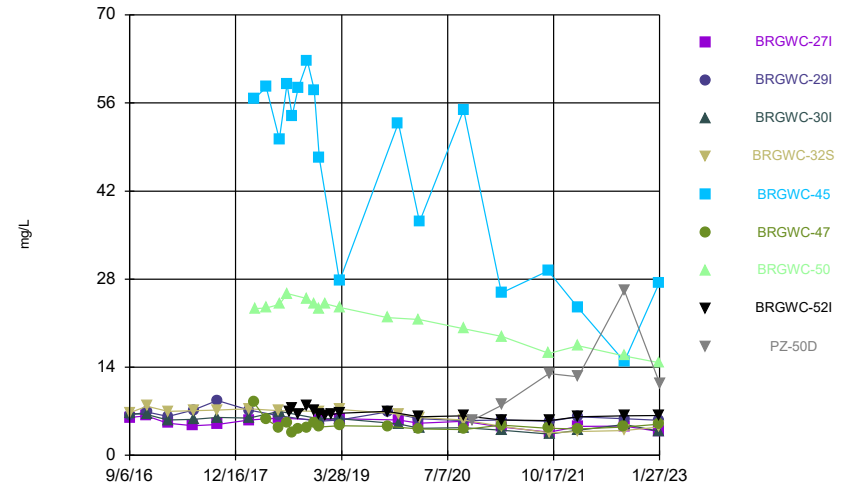
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



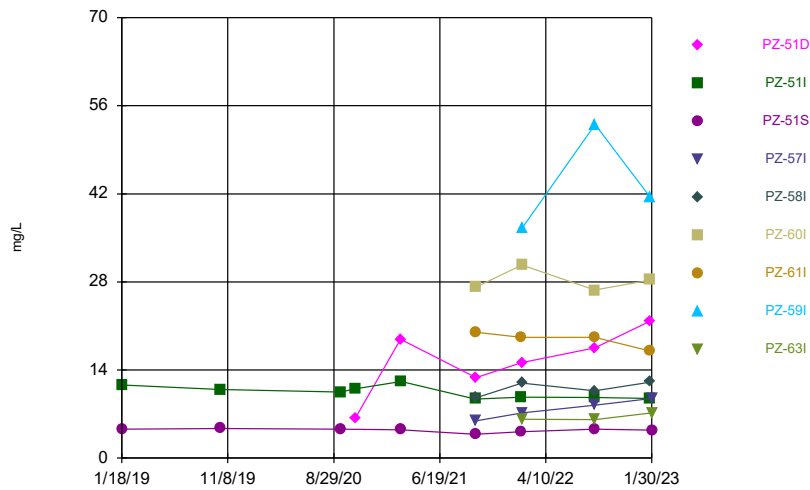
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



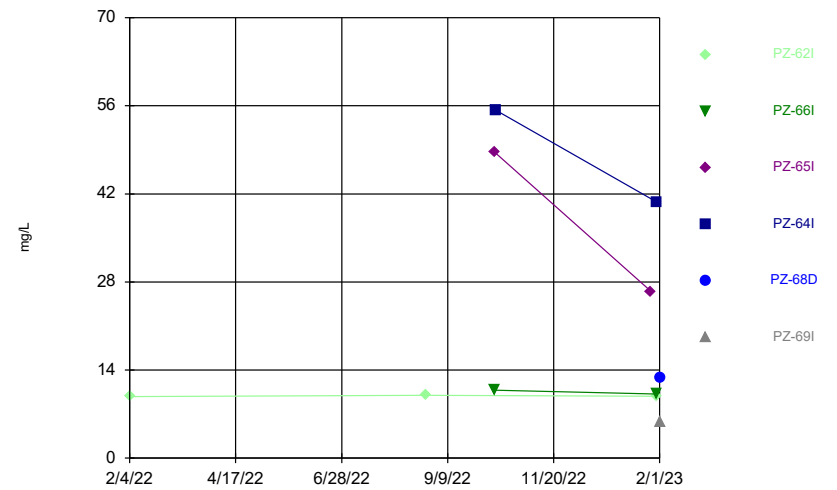
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



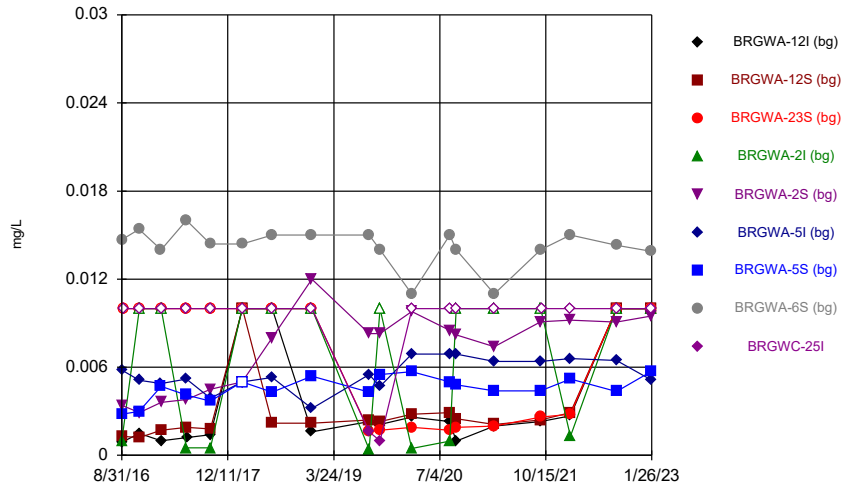
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



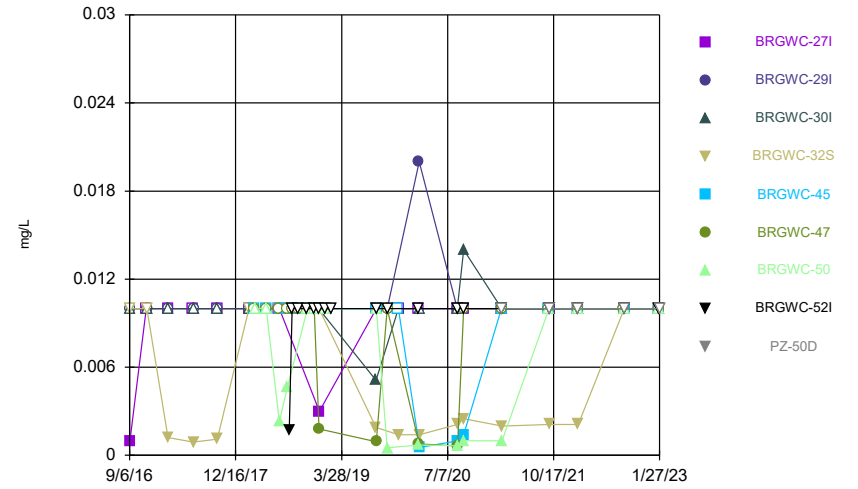
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



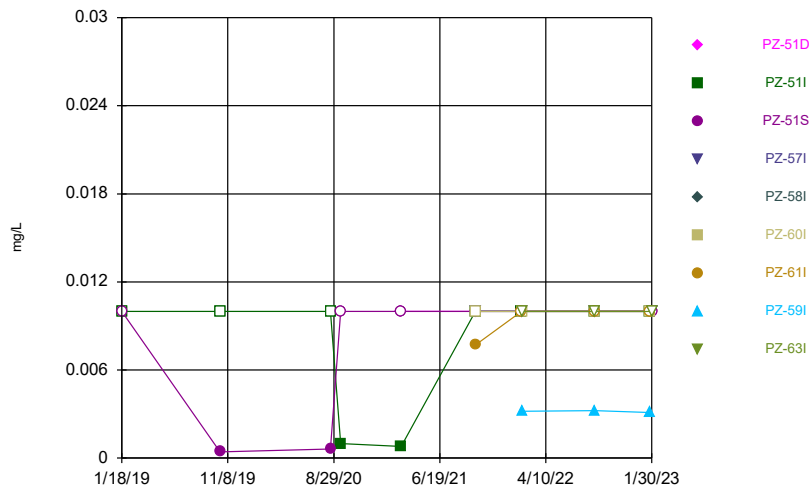
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



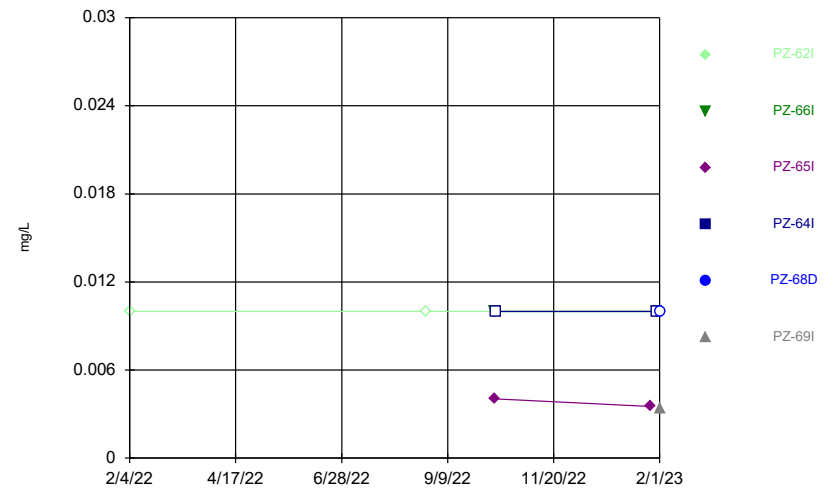
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Time Series



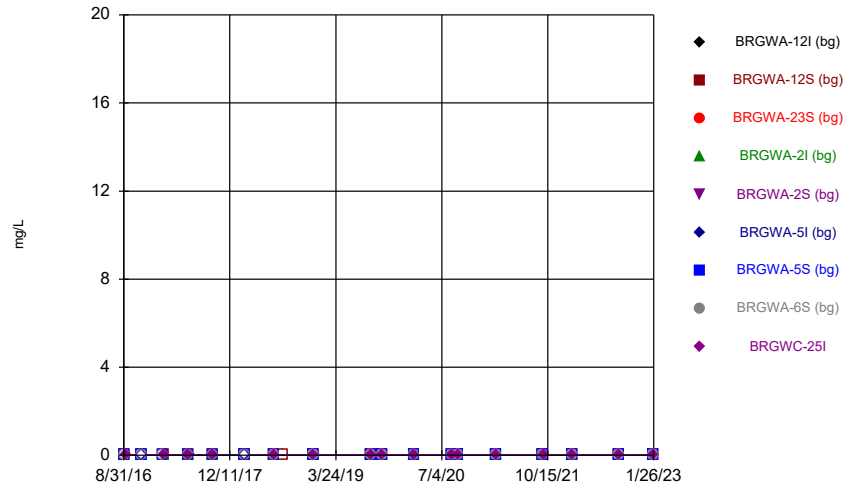
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Time Series



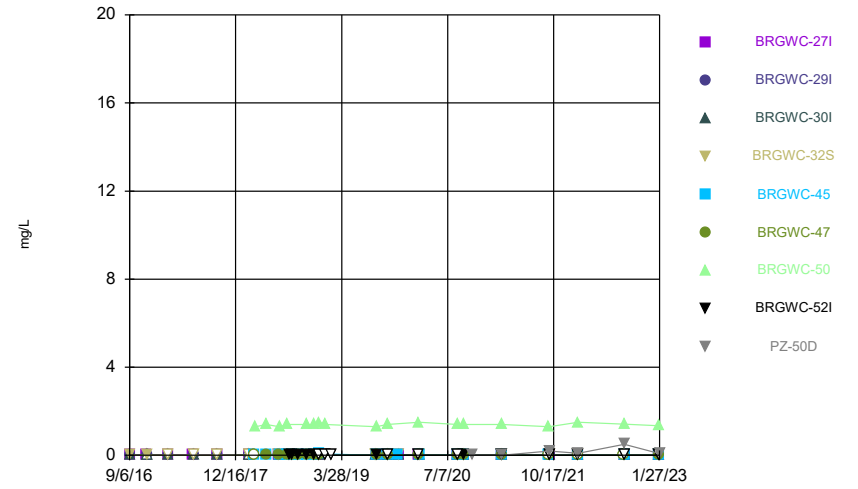
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



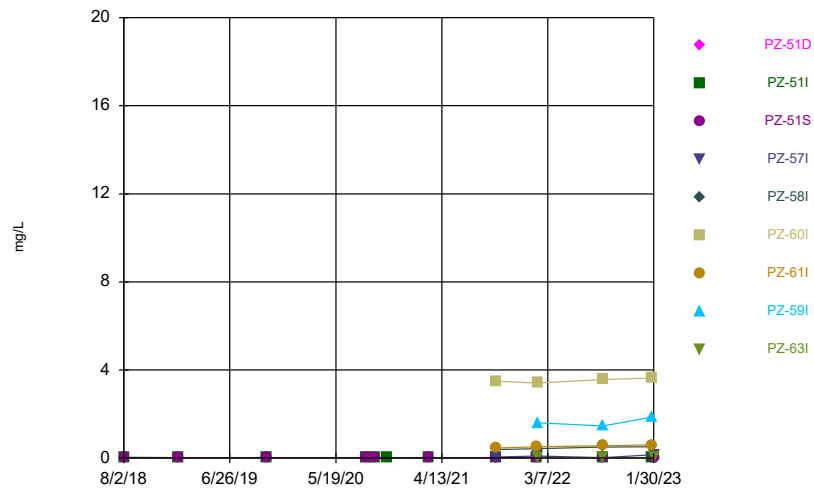
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



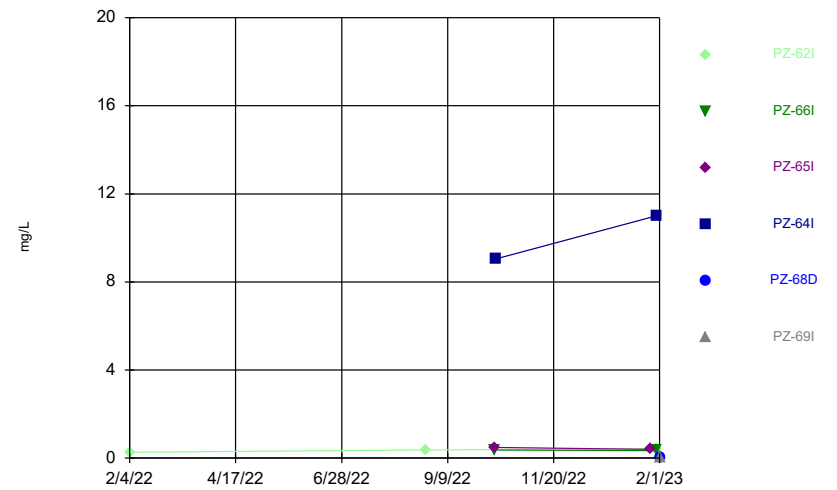
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Cobalt Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

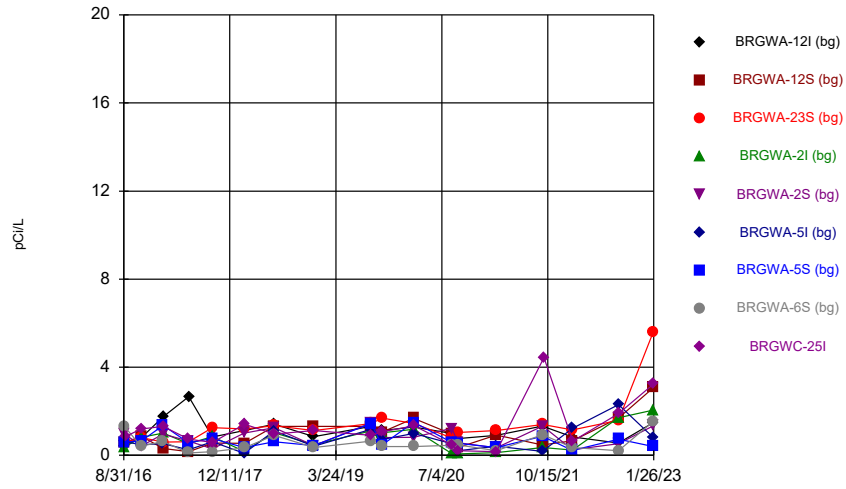
Time Series



Constituent: Cobalt Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

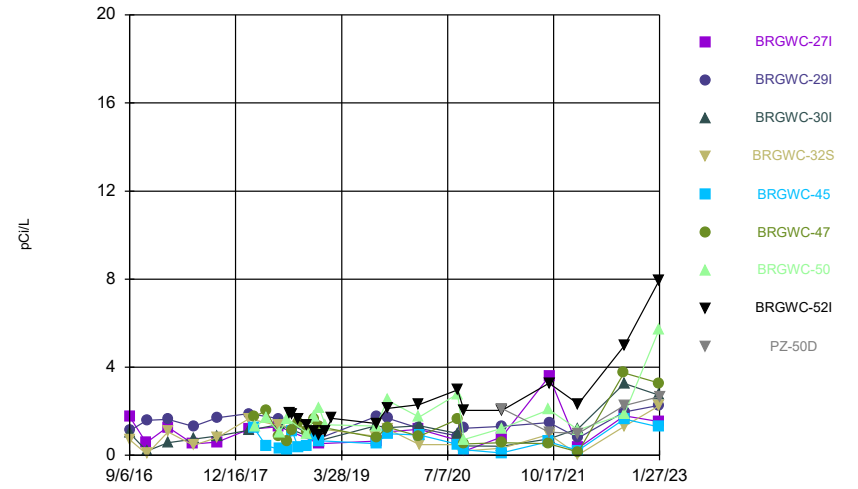


Time Series



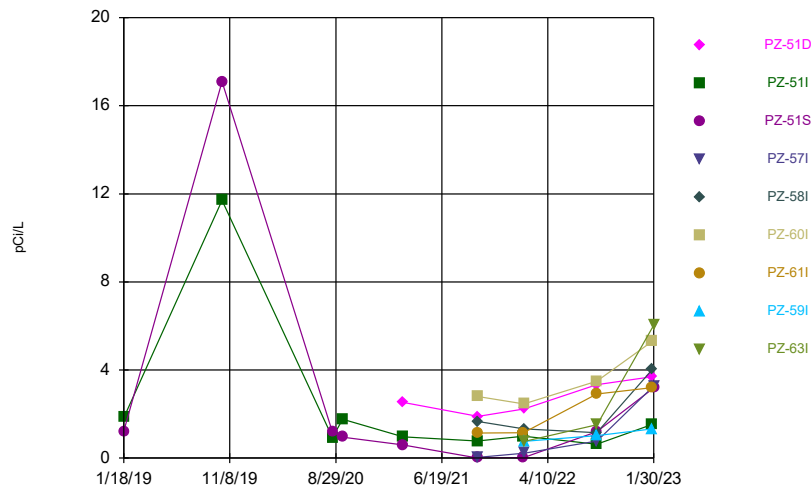
Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



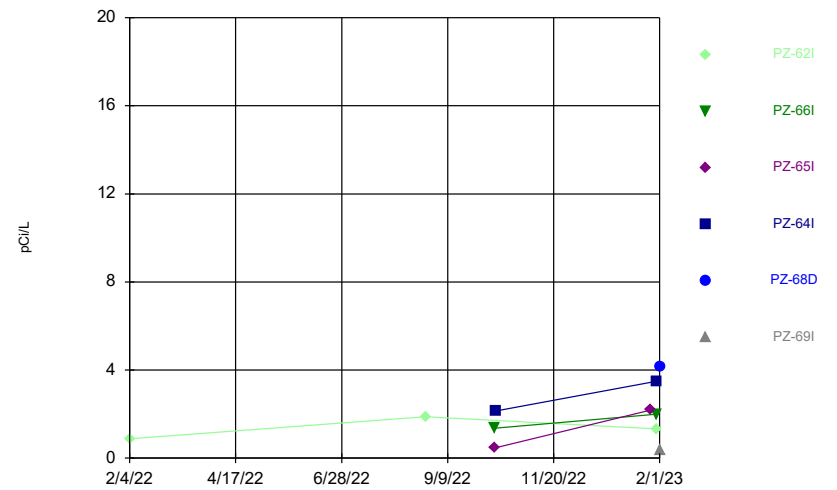
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



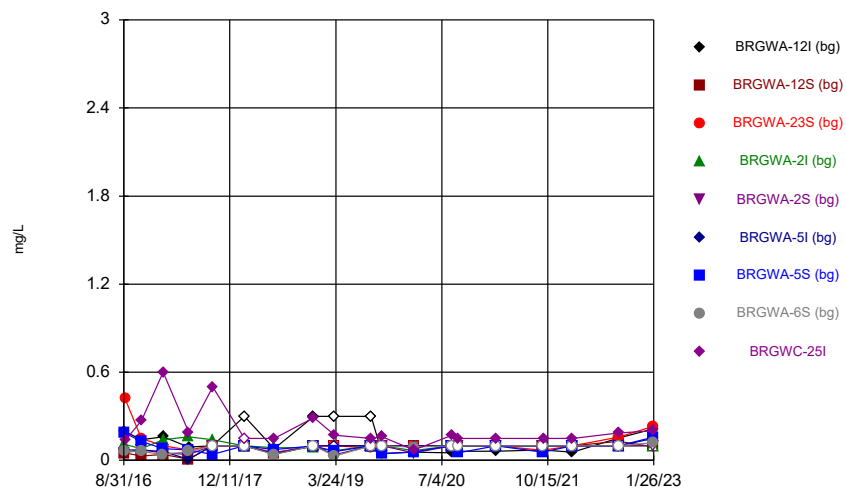
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



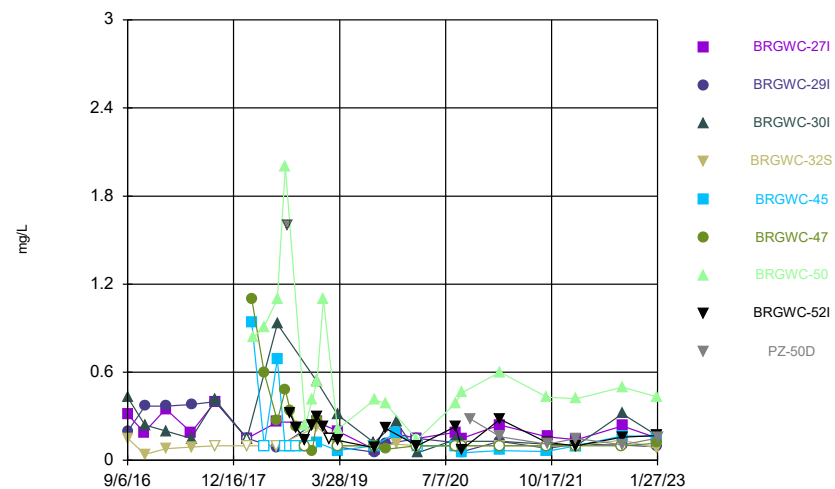
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



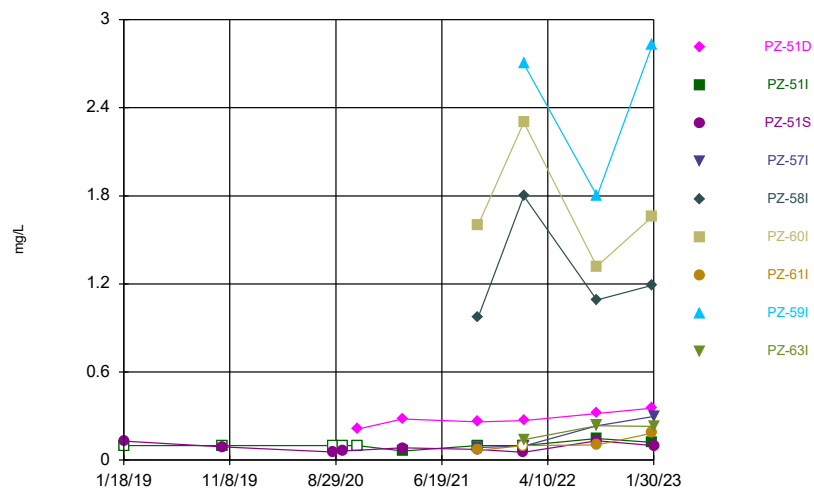
Constituent: Fluoride Analysis Run 3/20/2023 1:29 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



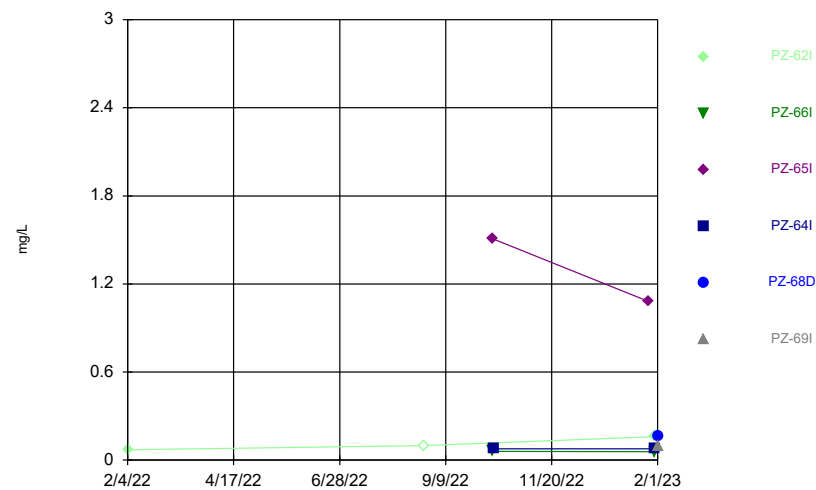
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



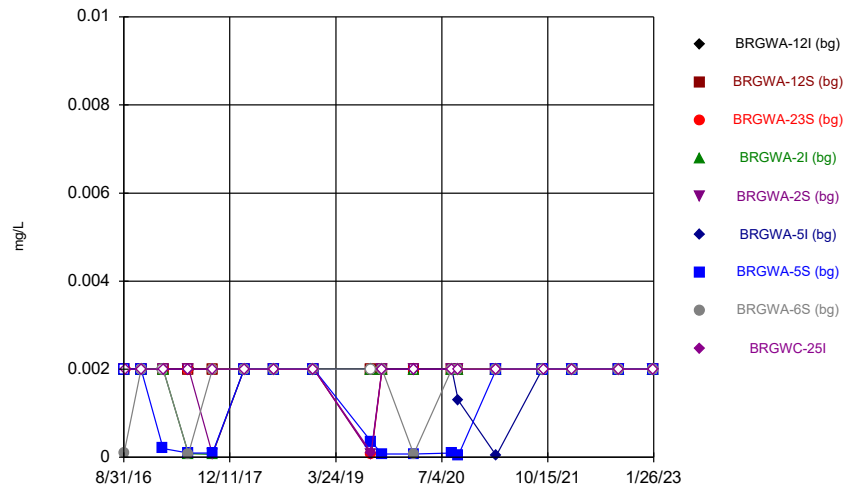
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



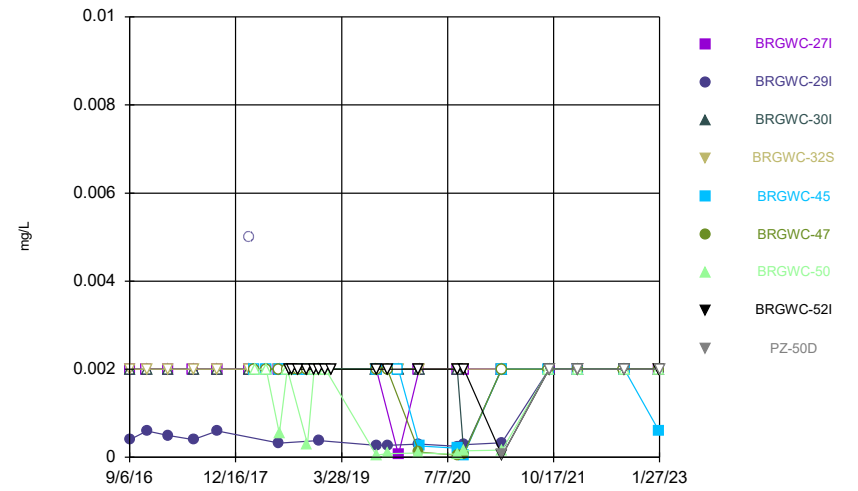
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



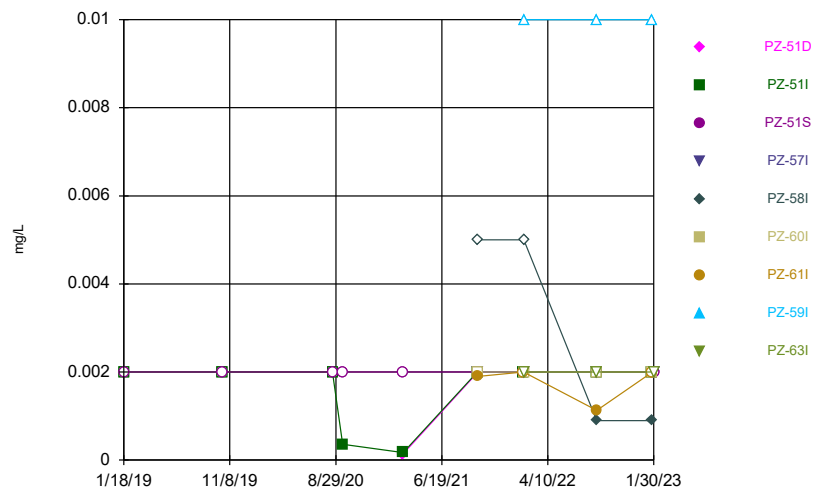
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



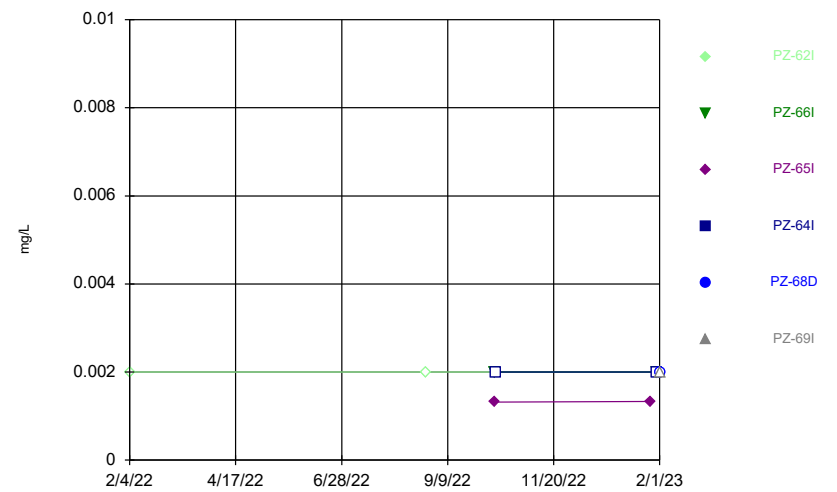
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



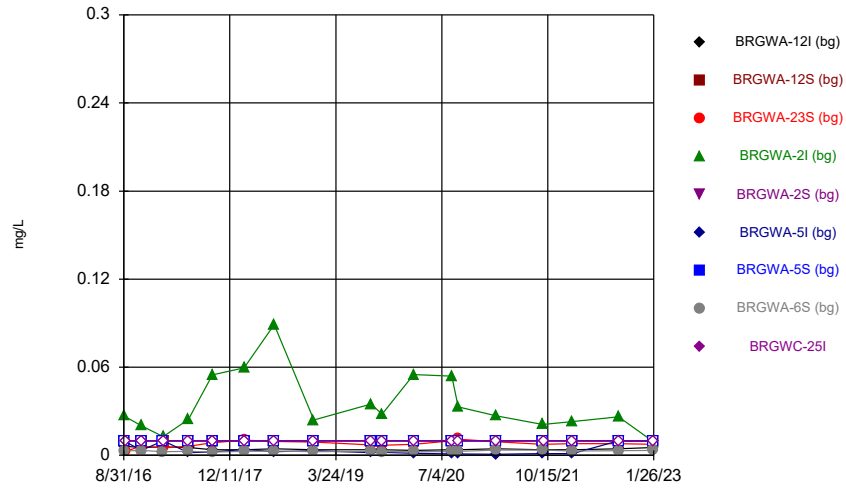
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



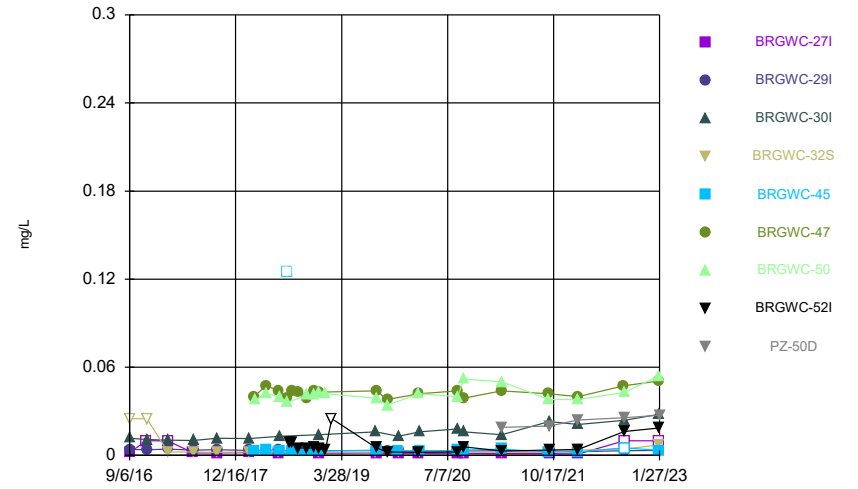
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



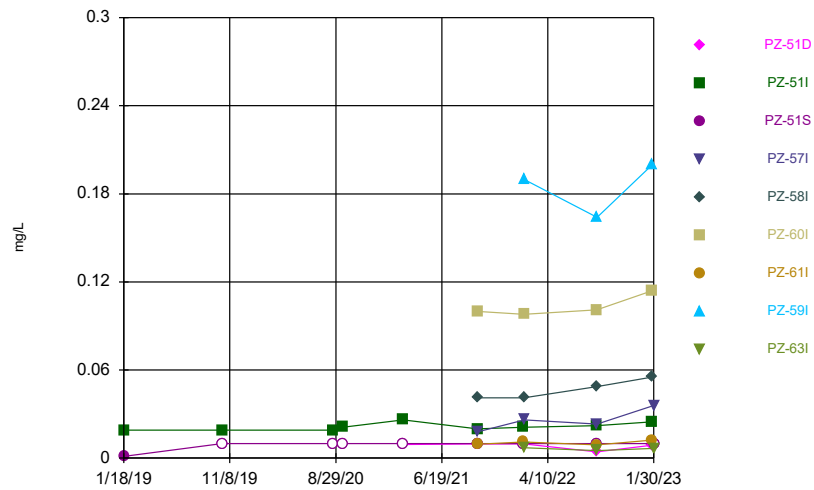
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



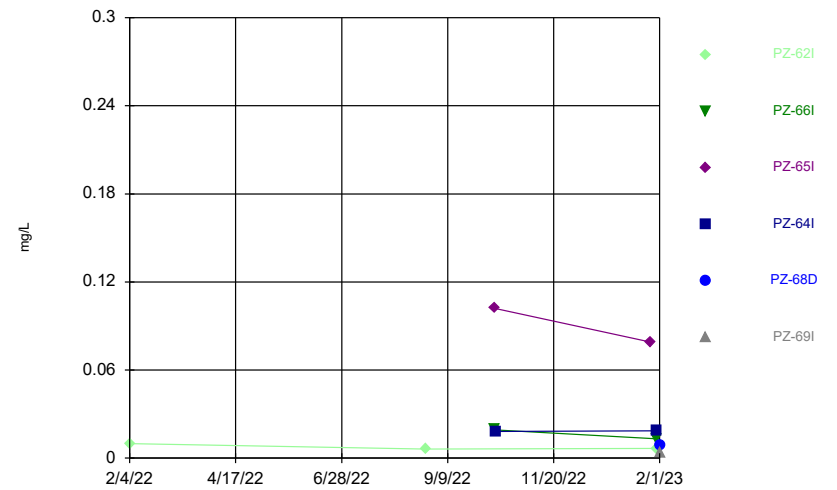
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



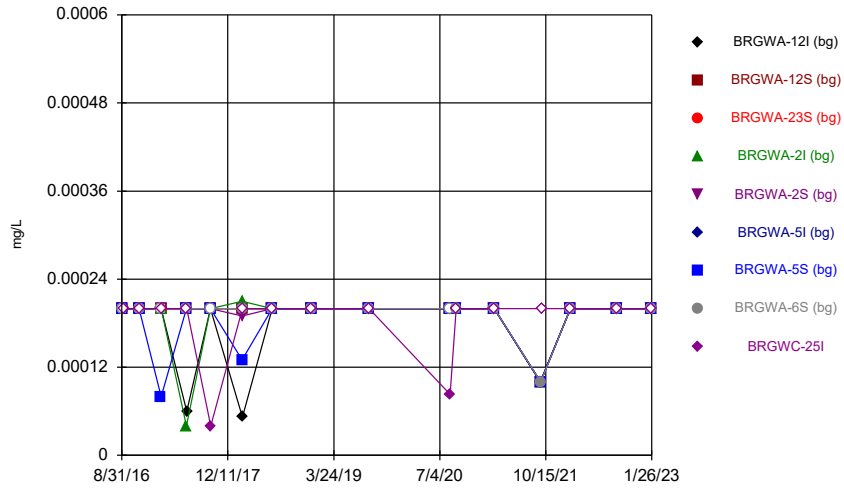
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



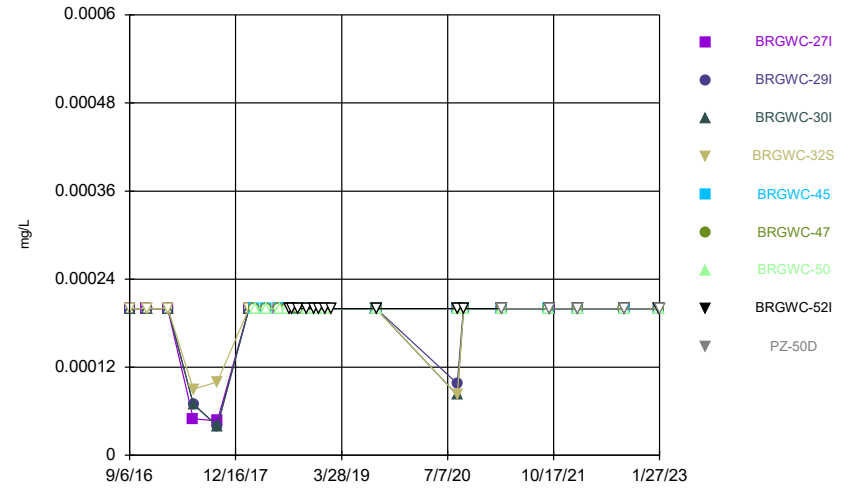
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



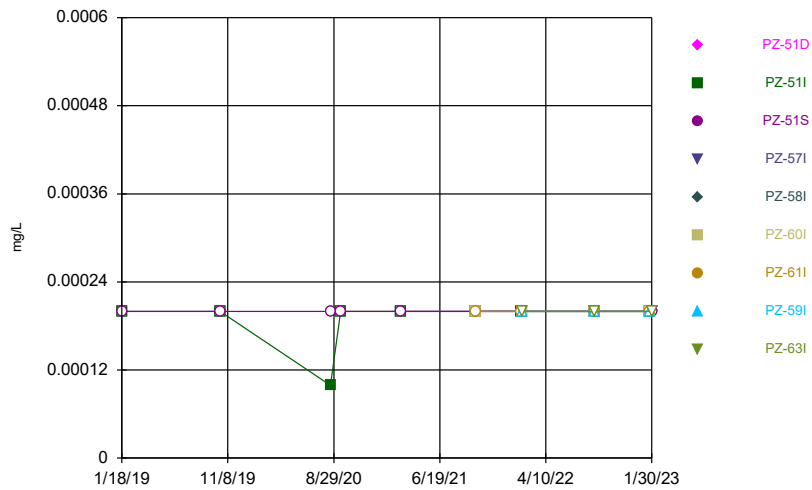
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



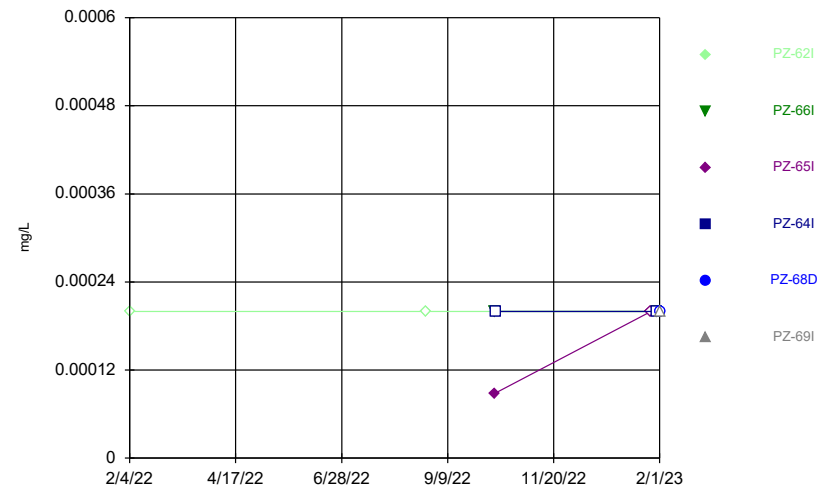
Constituent: Mercury Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



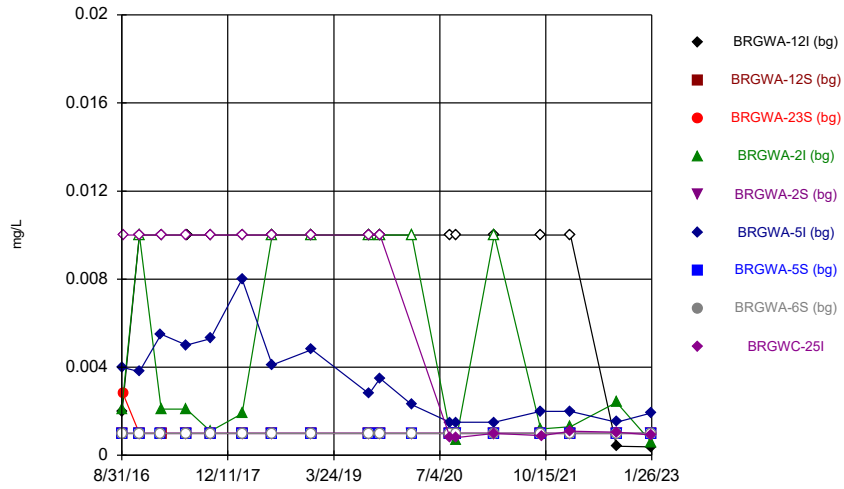
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



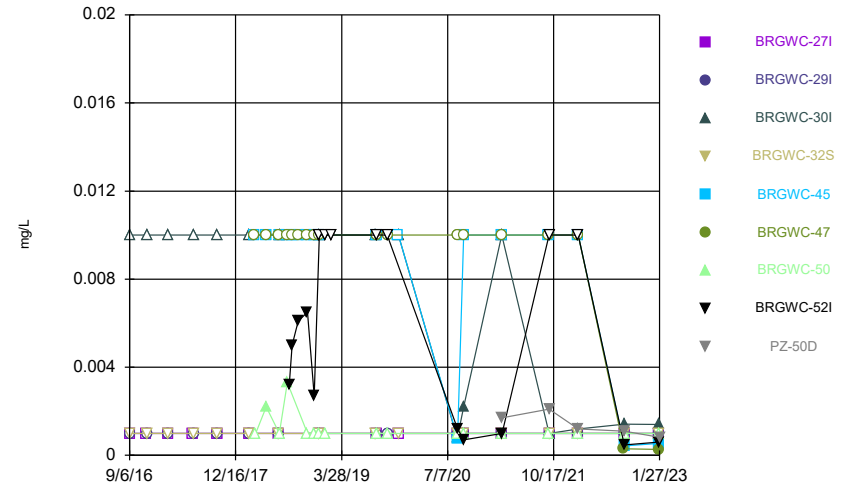
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



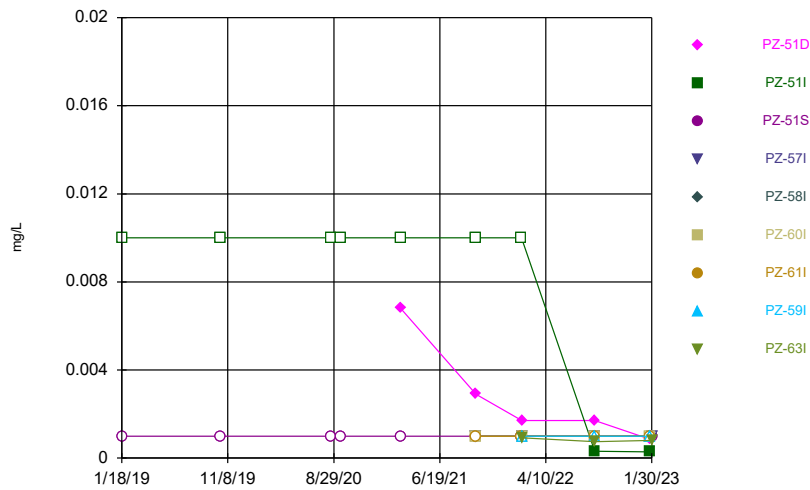
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



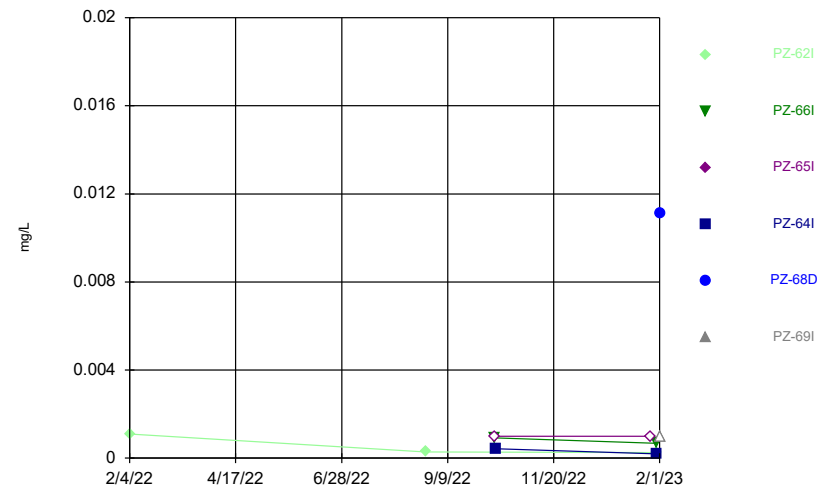
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



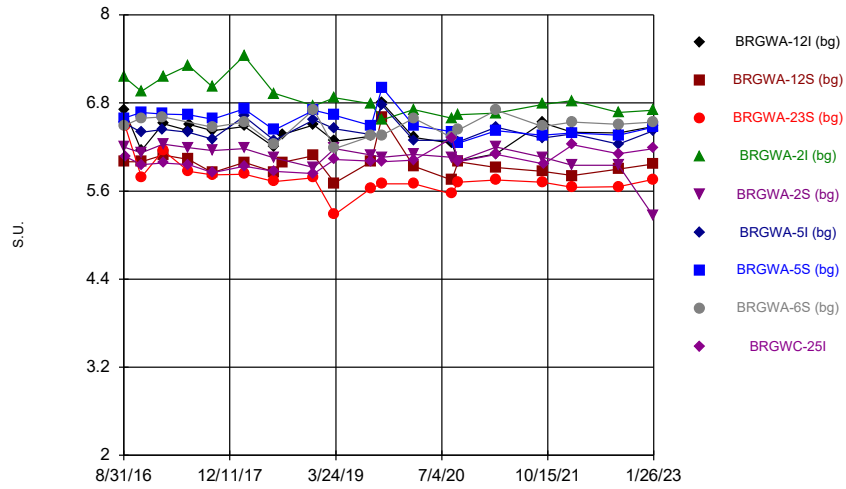
Constituent: Molybdenum Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



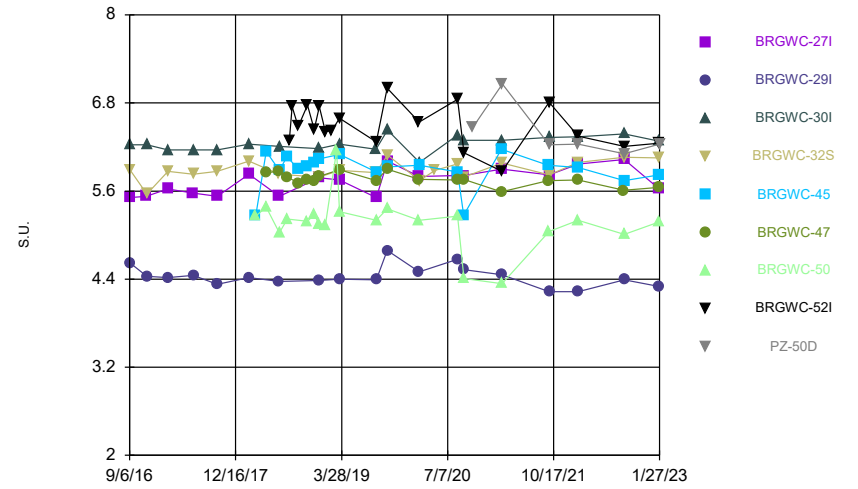
Constituent: Molybdenum Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



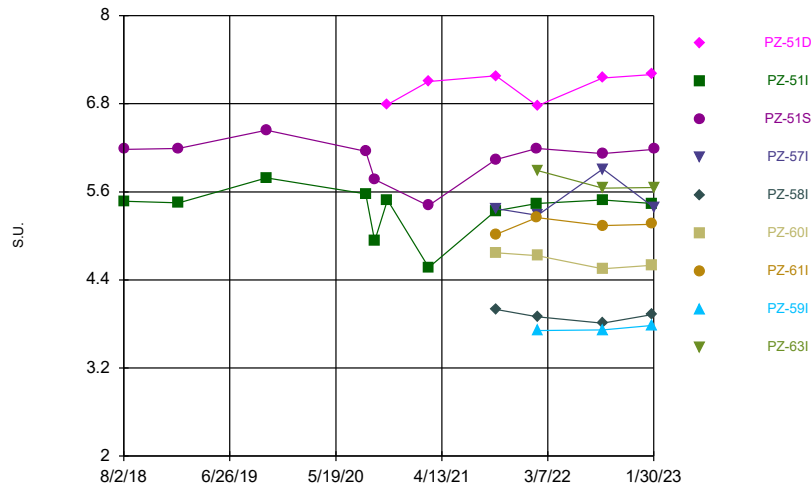
Constituent: pH, Field Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



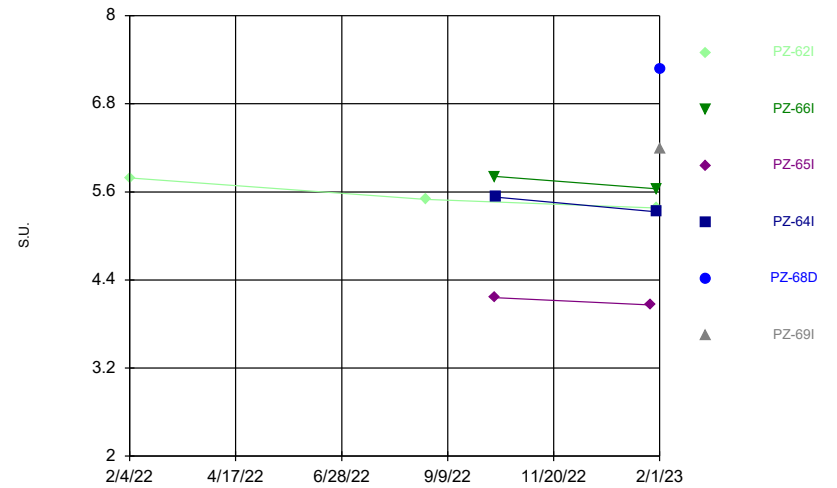
Constituent: pH, Field Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



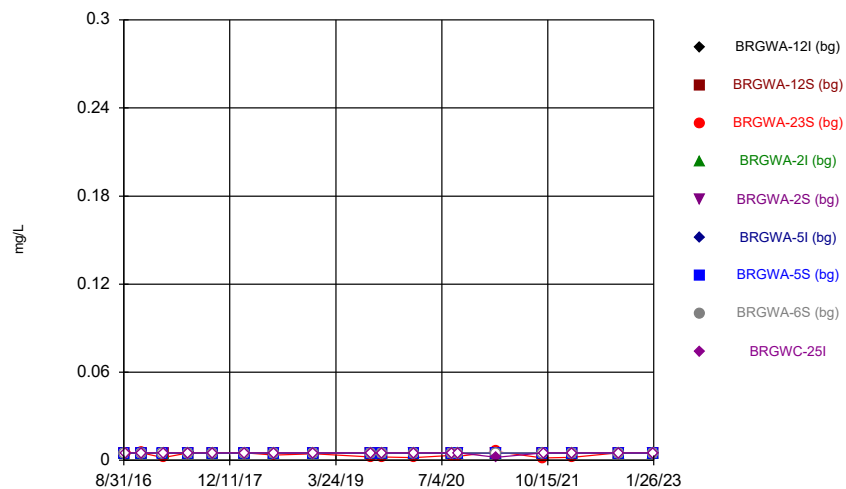
Constituent: pH, Field Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



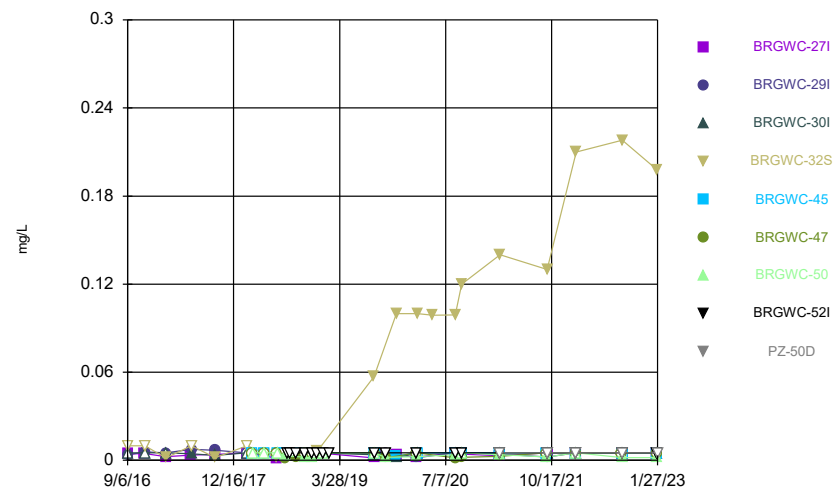
Constituent: pH, Field Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



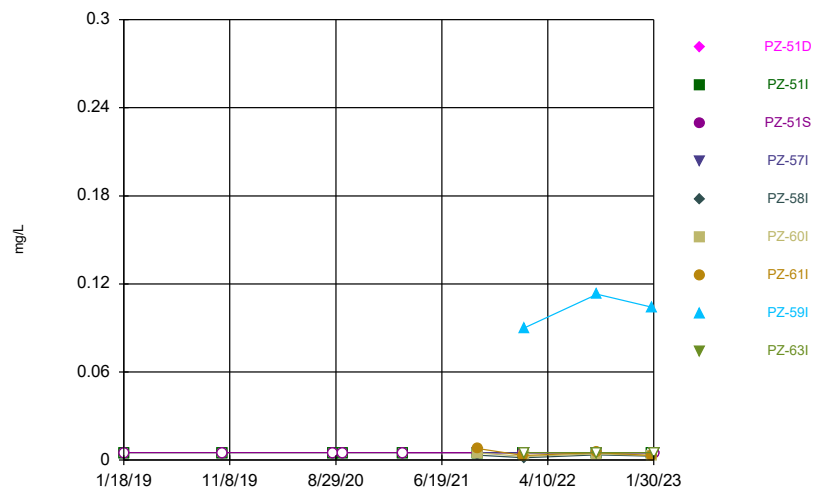
Constituent: Selenium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



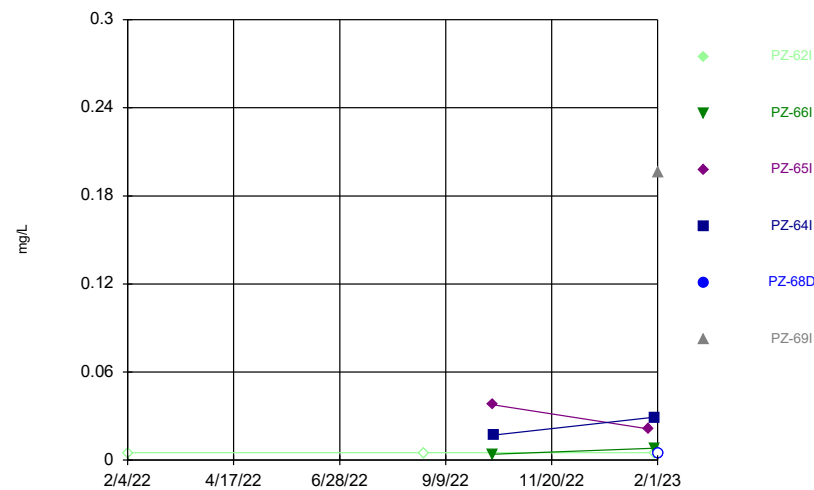
Constituent: Selenium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



Constituent: Selenium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

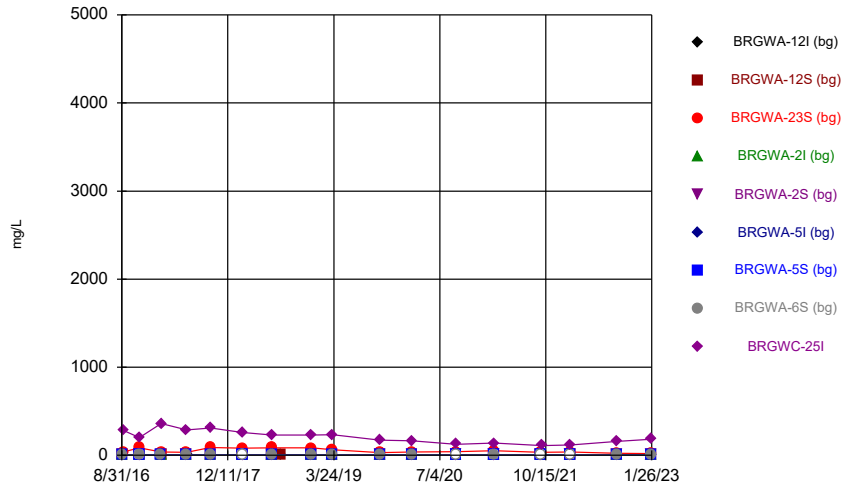
### Time Series



Constituent: Selenium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

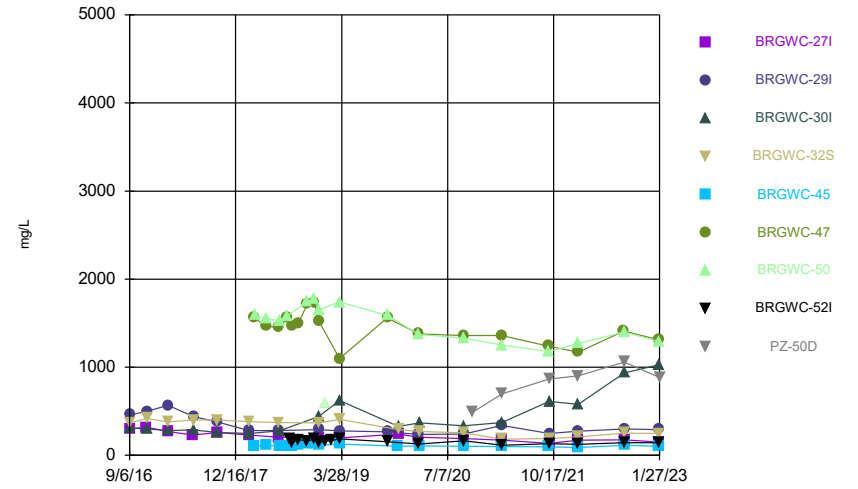


Time Series



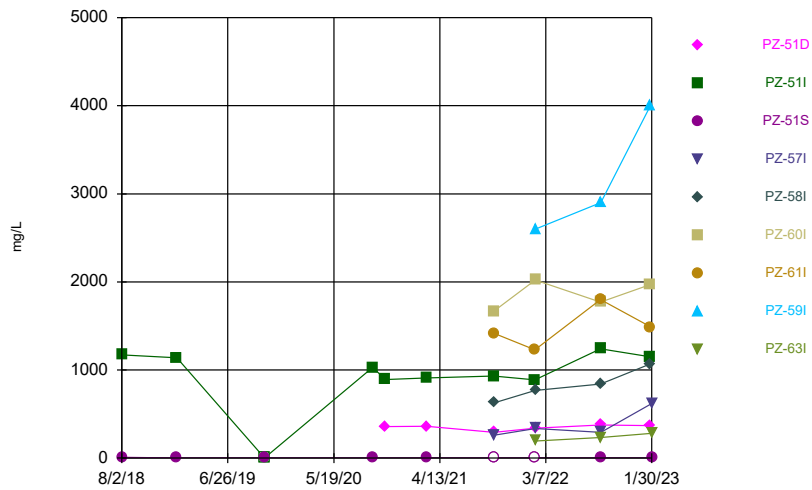
Constituent: Sulfate Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



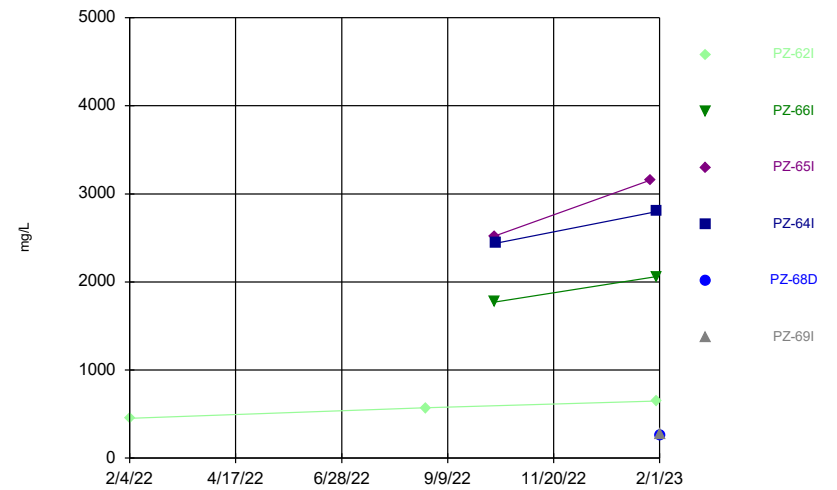
Constituent: Sulfate Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



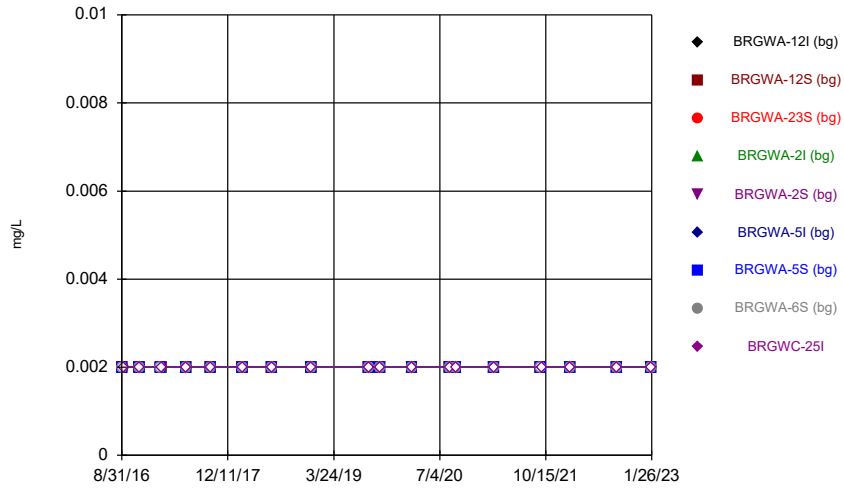
Constituent: Sulfate Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



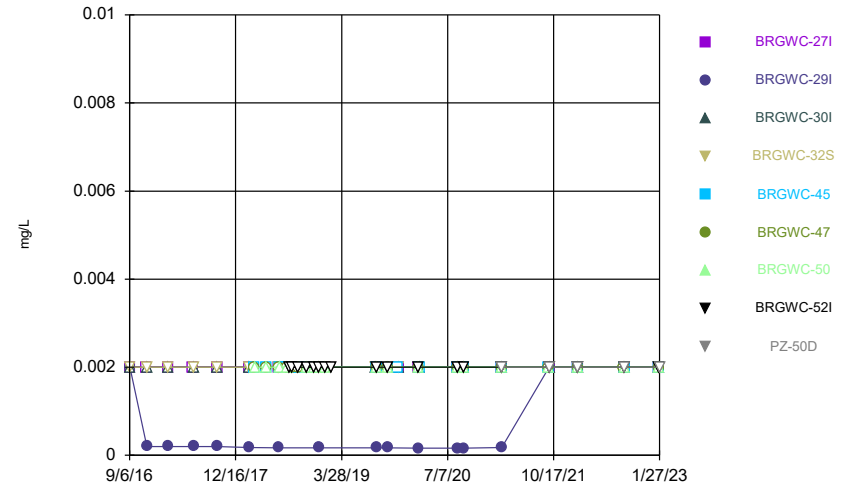
Constituent: Sulfate Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



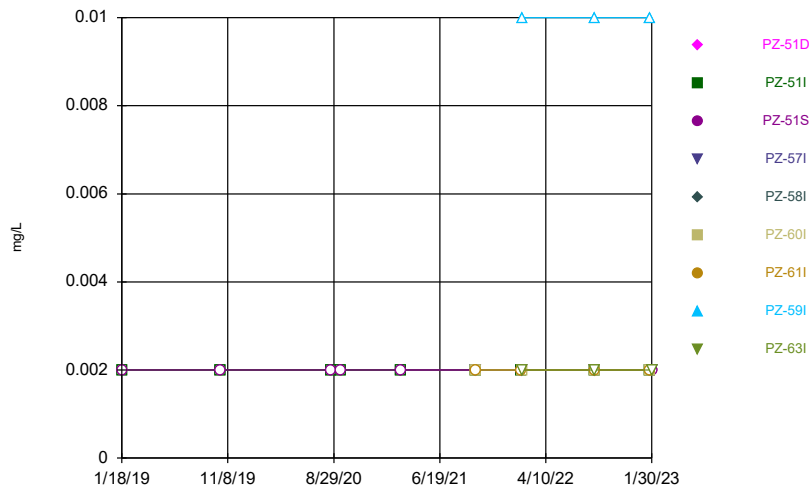
Constituent: Thallium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



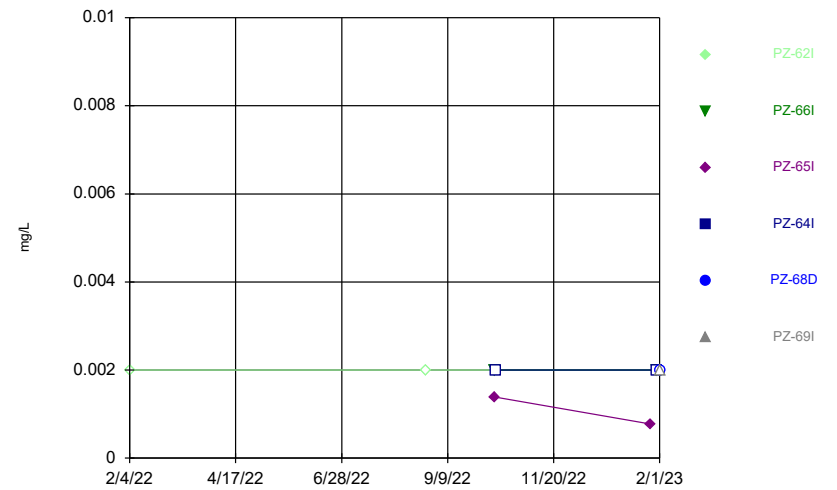
Constituent: Thallium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



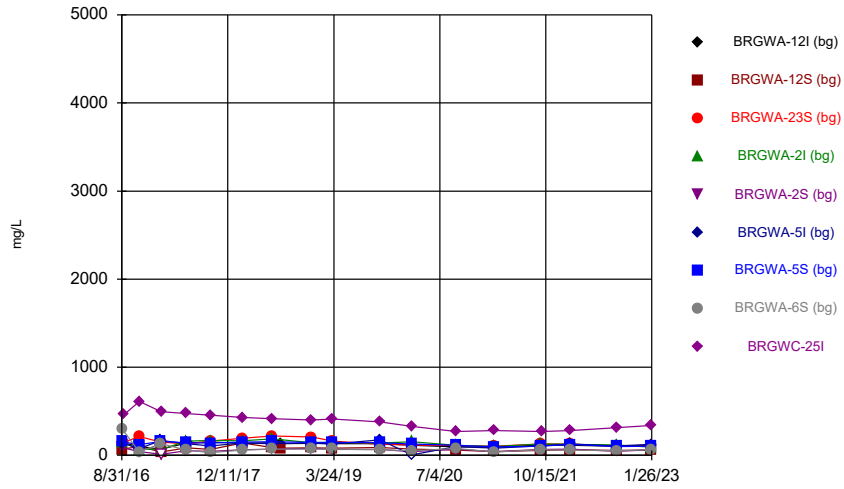
Constituent: Thallium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



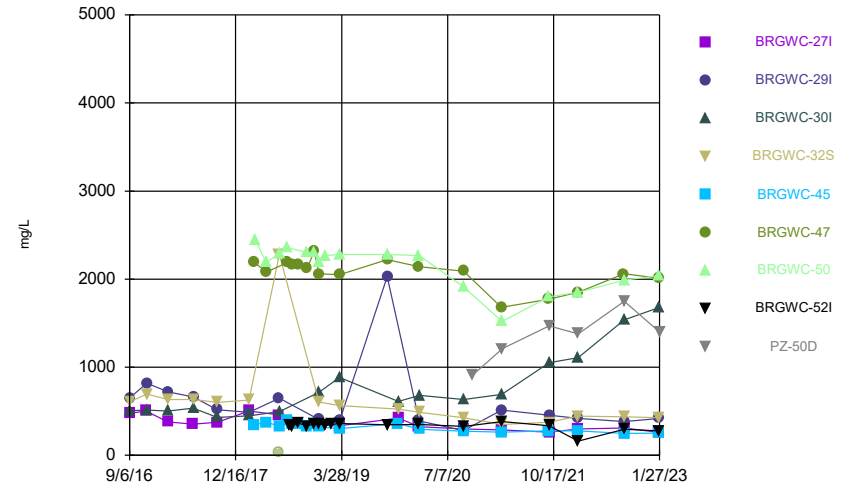
Constituent: Thallium Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



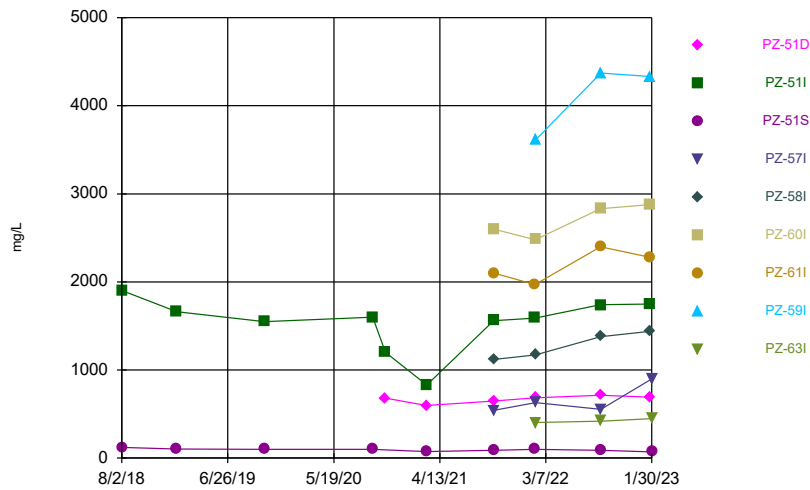
Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



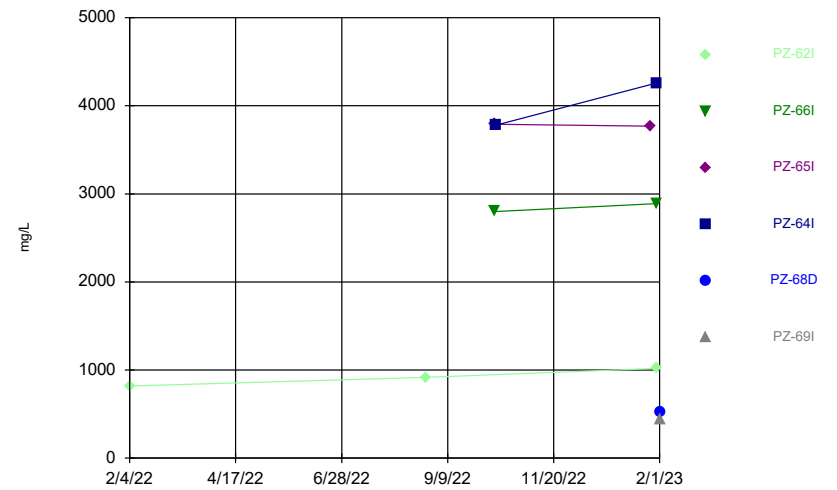
Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:30 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

# Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.0009 (J)	<0.003	<0.003	<0.003		
9/1/2016	0.0015 (J)	<0.003						<0.003	
9/6/2016			<0.003						
9/8/2016									<0.003
11/15/2016							<0.003	<0.003	
11/16/2016	<0.003	0.0011 (J)		<0.003	<0.003	<0.003			
11/17/2016			<0.003						<0.003
2/20/2017						<0.003	<0.003	<0.003	
2/21/2017	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
6/12/2017				<0.003		<0.003	<0.003	<0.003	
6/13/2017		0.0009 (J)	<0.003		0.0011 (J)				<0.003
6/14/2017	0.0014 (J)								
9/26/2017	<0.003	0.0032	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
9/27/2017									<0.003
2/13/2018				<0.003	<0.003	<0.003	<0.003	<0.003	
2/14/2018	<0.003	<0.003	<0.003						<0.003
6/26/2018	<0.003	<0.003	0.002 (J)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/18/2018	0.009	<0.003	<0.003	<0.003	<0.003	<0.003	0.00087 (J)	<0.003	<0.003
8/27/2019	0.0072	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/29/2019			<0.003						
10/15/2019	0.012	<0.003	<0.003	0.00047 (J)	<0.003	<0.003	<0.003	<0.003	<0.003
3/3/2020	0.0063	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	
3/4/2020			<0.003						<0.003
8/18/2020	0.0067	<0.003	<0.003	0.00054 (J)	0.00042 (J)	<0.003	0.0016 (J)	<0.003	
8/19/2020									<0.003
9/15/2020	0.01	<0.003	0.00033 (J)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/1/2021				<0.003				<0.003	
3/2/2021	0.0095	<0.003	<0.003		<0.003	<0.003	<0.003		<0.003
9/21/2021	0.017	<0.003				<0.003	<0.003		
9/22/2021			<0.003	<0.003	<0.003			<0.003	
9/28/2021									<0.003
2/1/2022	0.011	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
2/2/2022									<0.003
8/23/2022	0.0241	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/24/2023	0.0245	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
1/26/2023									<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.003						
9/8/2016	<0.003	<0.003		<0.003					
11/18/2016	<0.003								
11/21/2016		<0.003	<0.003	<0.003					
2/21/2017	<0.003								
2/22/2017		<0.003	<0.003	<0.003					
6/13/2017	<0.003								
6/14/2017		0.0007 (J)	<0.003	<0.003					
9/27/2017	<0.003	<0.003	<0.003	<0.003					
2/14/2018	<0.003	<0.003	<0.003	<0.003					
3/6/2018					<0.003	<0.003			
3/15/2018							<0.003		
5/1/2018					<0.003	<0.003 (D)	<0.003		
6/27/2018	<0.003	<0.003		<0.003		<0.003			
6/28/2018			<0.003		<0.003		<0.003		
7/31/2018					<0.003				
8/1/2018						<0.003	<0.003		
8/10/2018								<0.003	
8/23/2018					<0.003	<0.003		0.00085 (J)	
9/19/2018					<0.003	<0.003		<0.003	
10/29/2018					<0.003	<0.003	<0.003	<0.003	
11/28/2018					<0.003	<0.003	<0.003	<0.003	
12/18/2018		<0.003	<0.003						
12/19/2018				<0.003		<0.003	<0.003		
12/20/2018	<0.003				0.0024 (J)			<0.003	
1/16/2019							<0.003		
1/17/2019								<0.003	
2/13/2019								<0.003	
8/27/2019			<0.003	<0.003					
8/28/2019	<0.003	<0.003			0.00046 (J)	<0.003			
8/29/2019							0.00052 (J)	<0.003	
10/16/2019		<0.003				<0.003	<0.003	<0.003	
12/3/2019					0.00088 (J)				
12/4/2019	<0.003		<0.003	<0.003					
3/4/2020	<0.003	<0.003				<0.003	<0.003	0.00043 (J)	
3/5/2020			<0.003	0.0014 (J)	0.0016 (J)				
8/19/2020	<0.003	<0.003	<0.003	<0.003					
8/20/2020					0.0031	<0.003	<0.003	<0.003	
9/15/2020		<0.003							
9/16/2020	<0.003		<0.003	<0.003	0.0012 (J)	0.00035 (J)			
9/17/2020							0.00041 (J)	<0.003	
3/2/2021					0.0014 (J)	<0.003			
3/3/2021	<0.003	<0.003	<0.003						
3/4/2021				<0.003			0.00092 (J)	0.00091 (J)	
3/5/2021									0.00056 (J)
9/23/2021					<0.003	<0.003			
9/27/2021							<0.003		
9/28/2021	<0.003	<0.003	<0.003	<0.003				<0.003	<0.003
2/2/2022			0.0013 (J)	<0.003	<0.003	<0.003		<0.003	
2/3/2022		<0.003					<0.003		<0.003
2/4/2022	<0.003								
8/23/2022						<0.003			

# Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022		<0.003	<0.003				<0.003		
8/25/2022	<0.003			<0.003	<0.003			<0.003	<0.003
1/24/2023				<0.003					
1/25/2023	<0.003				<0.003		<0.003	<0.003	
1/26/2023		<0.003	<0.003			<0.003			
1/27/2023									<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.003						
1/19/2019		<0.003							
10/18/2019		<0.003	<0.003						
8/20/2020		0.0017 (J)	<0.003						
9/17/2020		<0.003	0.00043 (J)						
3/3/2021	0.0013 (J)		0.0018 (J)						
3/4/2021		0.00079 (J)							
9/27/2021		0.0012 (J)	<0.003				<0.003		
9/28/2021	<0.003			<0.003	<0.003	<0.003			
2/2/2022		<0.003	<0.003				<0.003		
2/3/2022	<0.003				<0.003	<0.003		<0.003	
2/4/2022				<0.003					<0.003
8/24/2022	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003		
8/25/2022				<0.003				<0.003	<0.003
1/26/2023	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003	
1/30/2023			<0.003	<0.003					<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.003					
8/25/2022	<0.003					
10/11/2022		<0.003	<0.003			
10/12/2022				<0.003		
1/26/2023			<0.003			
1/30/2023	<0.003	<0.003		<0.003		
2/1/2023					0.00176 (J)	<0.003



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.005	<0.005	<0.005	<0.005		
9/1/2016	<0.005	<0.005						<0.005	
9/6/2016			<0.005						
9/8/2016									<0.005
11/15/2016							<0.005	<0.005	
11/16/2016	<0.005	<0.005		<0.005	<0.005	<0.005			
11/17/2016			<0.005						<0.005
2/20/2017						<0.005	<0.005	<0.005	
2/21/2017	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
6/12/2017				0.0007 (J)		0.0007 (J)	0.0006 (J)	<0.005	
6/13/2017		<0.005	0.0008 (J)		<0.005				0.0006 (J)
6/14/2017	0.0009 (J)								
9/26/2017	0.0012 (J)	0.0006 (J)	0.0012 (J)	0.001 (J)	<0.005	0.0009 (J)	0.0007 (J)	0.0007 (J)	
9/27/2017									<0.005
2/13/2018				<0.005	<0.005	<0.005	<0.005	<0.005	
2/14/2018	<0.005	<0.005	0.0007 (J)						<0.005
6/26/2018	<0.005	<0.005	0.00062 (J)	0.00062 (J)	<0.005	<0.005	<0.005	<0.005	0.00072 (J)
12/18/2018	<0.005	<0.005	<0.005	<0.005	<0.005 (X)	<0.005 (X)	<0.005 (X)	<0.005 (X)	0.00091 (J)
8/27/2019	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/29/2019			<0.005						
10/15/2019	0.00088 (J)	0.00046 (J)	0.00075 (J)	0.0008 (J)	0.00063 (J)	0.00058 (J)	0.00039 (J)	<0.005	0.00052 (J)
3/3/2020	0.0023 (J)	0.0015 (J)		0.0027 (J)	0.00098 (J)	0.0024 (J)	0.0027 (J)	0.0018 (J)	
3/4/2020			<0.005						<0.005
8/18/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
8/19/2020									<0.005
9/15/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2021				<0.005				<0.005	
3/2/2021	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005		<0.005
9/21/2021	<0.005	<0.005				<0.005	<0.005		
9/22/2021			<0.005	<0.005	<0.005			<0.005	
9/28/2021									<0.005
2/1/2022	0.0017 (J)	<0.005	0.0018 (J)	0.0012 (J)	<0.005	0.0013 (J)	0.0012 (J)	<0.005	
2/2/2022									<0.005
8/23/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0021 (J)	
1/26/2023									<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.005						
9/8/2016	<0.005	<0.005		<0.005					
11/18/2016	<0.005								
11/21/2016		0.0019 (J)	<0.005	<0.005					
2/21/2017	<0.005								
2/22/2017		<0.005	<0.005	<0.005					
6/13/2017	0.0009 (J)								
6/14/2017		0.002 (J)	<0.005	<0.005					
9/27/2017	0.0007 (J)	0.0016 (J)	<0.005	<0.005					
2/14/2018	<0.005	<0.005	<0.005	<0.005					
3/6/2018					<0.005 (X)	<0.005 (X)			
3/15/2018							0.0014 (J)		
5/1/2018					0.0021 (J)	0.0018 (JD)	<0.005		
6/27/2018	<0.005	<0.005		<0.005		0.0016 (J)			
6/28/2018			<0.005 (X)		<0.005 (X)		<0.005		
7/31/2018					<0.005				
8/1/2018						0.0028 (J)	0.00074 (J)		
8/10/2018								<0.005	
8/23/2018					0.00075 (J)	<0.005		<0.005	
9/19/2018					<0.005	<0.005		0.0013 (J)	
10/29/2018					<0.005	0.0012 (J)	<0.005	0.0038 (J)	
11/28/2018					0.00096 (J)	0.0019 (J)	<0.005	0.0016 (J)	
12/18/2018		<0.005	<0.005						
12/19/2018				<0.005		0.00075 (J)	<0.005		
12/20/2018	<0.005				<0.005			0.0032 (J)	
1/16/2019							<0.005		
1/17/2019								0.0032 (J)	
2/13/2019								<0.005	
8/27/2019			<0.005	<0.005					
8/28/2019	0.0014 (J)	0.00051 (J)			0.00058 (J)	0.0018 (J)			
8/29/2019							<0.005	0.00067 (J)	
10/16/2019		0.00065 (J)				<0.005	<0.005	0.0026 (J)	
12/3/2019					0.0007 (J)				
12/4/2019	0.0011 (J)		0.00056 (J)	0.00053 (J)					
3/4/2020	<0.005	0.00044 (J)				0.00049 (J)	0.00046 (J)	0.0047 (J)	
3/5/2020			<0.005	<0.005	<0.005				
8/19/2020	<0.005	<0.005	<0.005	<0.005					
8/20/2020					<0.005	0.00089 (J)	<0.005	0.0031 (J)	
9/15/2020		<0.005							
9/16/2020	<0.005		<0.005	<0.005	<0.005	<0.005			
9/17/2020							<0.005	<0.005	
3/2/2021					<0.005	<0.005			
3/3/2021	<0.005	0.0015 (J)	<0.005						
3/4/2021				<0.005			<0.005	0.003 (J)	
3/5/2021									0.00087 (J)
9/23/2021					<0.005	0.002 (J)			
9/27/2021							<0.005		
9/28/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
2/2/2022			<0.005	<0.005	<0.005	0.0056		<0.005	
2/3/2022		<0.005					<0.005		0.0012 (J)
2/4/2022	<0.005								
8/23/2022						0.00228 (J)			

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022			0.00283 (J)				0.0025 (J)		
8/25/2022	<0.005			<0.005	<0.005			<0.005	0.00235 (J)
1/24/2023				<0.005					
1/25/2023	<0.005				0.00225 (J)		0.00236 (J)	<0.005	
1/26/2023		<0.005	0.00208 (J)			0.0024 (J)			
1/27/2023									0.00215 (J)

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.005						
1/19/2019		<0.005							
10/18/2019		<0.005	<0.005						
8/20/2020		<0.005	<0.005						
9/17/2020		<0.005	<0.005						
3/3/2021	0.0014 (J)		<0.005						
3/4/2021		<0.005							
9/27/2021		<0.005	<0.005				0.0023 (J)		
9/28/2021	<0.005			<0.005	<0.005	<0.005			
2/2/2022		<0.005	0.002 (J)				<0.005		
2/3/2022	0.0015 (J)				<0.005	<0.005		0.017	
2/4/2022				<0.005					<0.005
8/24/2022	0.00308 (J)	0.00222 (J)	<0.005		0.00245 (J)	0.00358 (J)	0.00295 (J)		
8/25/2022				<0.005				0.0221	<0.005
1/26/2023	0.00275 (J)	<0.005			<0.005	0.00204 (J)	0.00225 (J)	0.0237	
1/30/2023			<0.005	<0.005					<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.005					
8/25/2022	<0.005					
10/11/2022		0.00489 (J)	0.0201			
10/12/2022				0.00896		
1/26/2023			0.00926			
1/30/2023	<0.005	0.00565		0.0103		
2/1/2023					0.0058	0.00349 (J)



# Time Series

Constituent: Barium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			0.0206						
9/8/2016	0.0184	0.0199		0.0593					
11/18/2016	0.0173								
11/21/2016		0.0221 (J)	0.0237 (J)	0.0532 (BR)					
2/21/2017	0.015								
2/22/2017		0.0179	0.0219	0.0498					
6/13/2017	0.0143								
6/14/2017		0.0157	0.0197	0.0421					
9/27/2017	0.017	0.0165	0.0213	0.0411					
2/14/2018	0.0166	0.0163	0.0236	0.0417					
3/6/2018					0.1	0.0519			
3/15/2018							0.021		
5/1/2018					0.084	0.057 (D)	0.024		
6/27/2018	0.015	0.017		0.038		0.046			
6/28/2018			0.023		0.067		0.021		
7/31/2018					0.087 (J+X)				
8/1/2018						0.043 (J+X)	0.02 (J+X)		
8/10/2018								0.038	
8/23/2018					0.084	0.038		0.03 (JX)	
9/19/2018					0.086	0.036		0.03	
10/29/2018					0.098 (J+X)	0.041 (J+X)	0.019 (J+X)	0.025 (J+X)	
11/28/2018					0.11	0.039	0.02	0.017	
12/18/2018		0.017	0.029						
12/19/2018				0.036		0.04	0.02		
12/20/2018	0.015				0.093			0.013	
1/16/2019							0.02		
1/17/2019								0.017	
2/13/2019								0.025	
8/27/2019			0.027	0.032					
8/28/2019	0.019	0.02			0.11	0.035			
8/29/2019							0.018	0.017	
10/16/2019		0.019				0.032	0.017	0.015	
12/3/2019					0.099				
12/4/2019	0.016		0.021	0.028					
3/4/2020	0.015	0.018				0.038	0.019	0.022	
3/5/2020			0.025	0.026	0.078				
8/19/2020	0.016	0.019	0.026	0.025					
8/20/2020					0.083	0.035	0.019	0.017	
9/15/2020		0.017							
9/16/2020	0.016		0.022	0.024	0.085	0.028			
9/17/2020							0.02	0.02	
3/2/2021					0.061	0.036			
3/3/2021	0.016	0.021	0.028						
3/4/2021				0.024			0.025	0.019	
3/5/2021									0.043
9/23/2021					0.064	0.031			
9/27/2021							0.017		
9/28/2021	0.013	0.017	0.035	0.02				0.013	0.034
2/2/2022			0.031	0.023	0.063	0.028		0.013	
2/3/2022		0.016					0.016		0.033
2/4/2022	0.015								
8/23/2022						0.0285			





# Time Series

Constituent: Barium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			0.031						
1/19/2019		0.017							
10/18/2019		0.014	0.032						
8/20/2020		0.013	0.03						
9/17/2020		0.015	0.033						
3/3/2021	0.08		0.037						
3/4/2021		0.016							
9/27/2021		0.014	0.025				0.029		
9/28/2021	0.057			0.022	0.017	0.022			
2/2/2022		0.015	0.027				0.015		
2/3/2022	0.057				0.016	0.021		0.013	
2/4/2022				0.024					0.037
8/24/2022	0.0584	0.0154	0.0223		0.0181	0.0226	0.0133		
8/25/2022				0.0219				0.0121 (J)	0.023
1/26/2023	0.0481	0.0152			0.0167	0.0218	0.0125	0.0132 (J)	
1/30/2023			0.023	0.022					0.022

# Time Series

Constituent: Barium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.058					
8/25/2022	0.0259					
10/11/2022		0.0597	0.026			
10/12/2022				0.0543		
1/26/2023			0.0103			
1/30/2023	0.023	0.0284		0.0254		
2/1/2023					0.145	0.0253

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.0005	<0.0005	<0.0005	<0.0005		
9/1/2016	<0.0005	<0.0005						<0.0005	
9/6/2016			<0.0005						
9/8/2016									<0.0005
11/15/2016							<0.0005	<0.0005	
11/16/2016	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005			
11/17/2016			<0.0005						<0.0005
2/20/2017						<0.0005	<0.0005	<0.0005	
2/21/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
6/12/2017				<0.0005		<0.0005	<0.0005	<0.0005	
6/13/2017		<0.0005	<0.0005		<0.0005				<0.0005
6/14/2017	<0.0005								
9/26/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/27/2017									<0.0005
2/13/2018				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
2/14/2018	<0.0005	<0.0005	<0.0005						<0.0005
6/26/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
12/18/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/27/2019	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/29/2019			<0.0005						
10/15/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/3/2020	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
3/4/2020			<0.0005						<0.0005
8/18/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
8/19/2020									<0.0005
9/15/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/1/2021				<0.0005				<0.0005	
3/2/2021	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005		<0.0005
9/21/2021	<0.0005	<0.0005				<0.0005	<0.0005		
9/22/2021			<0.0005	<0.0005	<0.0005			<0.0005	
9/28/2021									<0.0005
2/1/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
2/2/2022									<0.0005
8/23/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/24/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
1/26/2023									<0.0005

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.0005						
9/8/2016	0.0002 (J)	0.0011 (J)		<0.0005					
11/18/2016	0.0002 (J)								
11/21/2016		0.0012 (J)	<0.0005	<0.0005					
2/21/2017	0.0002 (J)								
2/22/2017		0.0014 (J)	<0.0005	<0.0005					
6/13/2017	0.0002 (J)								
6/14/2017		0.0012 (J)	<0.0005	<0.0005					
9/27/2017	0.0001 (J)	0.001 (J)	<0.0005	<0.0005					
2/14/2018	<0.0005	<0.003	<0.0005	<0.0005					
3/6/2018					<0.0005	<0.0005			
3/15/2018							<0.003		
5/1/2018					<0.0005	<0.0005 (D)	<0.003		
6/27/2018	0.00014 (J)	0.0008 (J)		<0.0005		<0.0005			
6/28/2018			<0.0005		<0.0005		0.003 (J)		
7/31/2018					<0.0005				
8/1/2018						<0.0005	0.0025 (J)		
8/10/2018								<0.0005	
8/23/2018					7.9E-05 (J)	5.5E-05 (J)		<0.0005	
9/19/2018					<0.0005	<0.0005		<0.0005	
10/29/2018					<0.0005	<0.0005	0.0042	<0.0005	
11/28/2018					<0.0005	5.6E-05 (J)	0.0029 (J)	<0.0005	
12/18/2018		0.00071 (J)	<0.0005						
12/19/2018				<0.0005		<0.0005 (X)	0.0043		
12/20/2018	<0.0005 (X)				<0.0005			<0.0005	
1/16/2019							0.0038		
1/17/2019								<0.0005	
2/13/2019								<0.0005	
8/27/2019			<0.0005	<0.0005					
8/28/2019	0.00012 (J)	0.0008 (J)			<0.0005	<0.0005			
8/29/2019							0.0029 (J)	<0.0005	
10/16/2019		0.00072 (J)				<0.0005	0.0027 (J)	<0.0005	
10/17/2019	<0.0005		<0.0005	<0.0005	<0.0005				
12/3/2019					<0.0005				
12/4/2019	0.00012 (J)		<0.0005	<0.0005					
3/4/2020	0.00012 (J)	0.00073 (J)				<0.0005	0.0052	<0.0005	
3/5/2020			<0.0005	<0.0005	<0.0005				
8/19/2020	9.9E-05 (J)	0.00074 (J)	<0.0005	<0.0005					
8/20/2020					4.6E-05 (J)	4.7E-05 (J)	0.0044	<0.0005	
9/15/2020		0.00071 (J)							
9/16/2020	0.00011 (J)		<0.0005	<0.0005	<0.0005	<0.0005			
9/17/2020							0.0065	<0.0005	
3/2/2021					<0.0005	<0.0005			
3/3/2021	7.1E-05 (J)	0.00094	<0.0005						
3/4/2021				<0.0005			0.0059	<0.0005	
3/5/2021									<0.0005
9/23/2021					<0.0005	<0.0005			
9/27/2021							0.006		
9/28/2021	<0.0005	0.00079	<0.0005	<0.0005				<0.0005	5.9E-05 (J)
2/2/2022			<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	
2/3/2022		0.00083					0.0071		<0.0005
2/4/2022	5.4E-05 (J)								

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/23/2022						<0.0005			
8/24/2022		0.000845	<0.0005				0.00831		
8/25/2022	<0.0005			<0.0005	<0.0005			<0.0005	0.000269 (J)
1/24/2023				<0.0005					
1/25/2023	<0.0005				<0.0005		0.00962	<0.0005	
1/26/2023		0.00109	<0.0005			<0.0005			
1/27/2023									<0.0005

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.0005						
1/19/2019		6.4E-05 (J)							
10/18/2019		<0.0005	<0.0005						
8/20/2020		7.7E-05 (J)	<0.0005						
9/17/2020		9.6E-05 (J)	<0.0005						
3/3/2021	<0.0005		<0.0005						
3/4/2021		9.7E-05 (J)							
9/27/2021		7.1E-05 (J)	<0.0005				0.0017		
9/28/2021	<0.0005			0.00031 (J)	0.025	0.065			
2/2/2022		7.1E-05 (J)	<0.0005				0.0015		
2/3/2022	<0.0005				0.027	0.072		0.12	
2/4/2022				0.00054					<0.0005
8/24/2022	<0.0005	<0.0005	<0.0005		0.0335	0.0703	0.00198		
8/25/2022				0.000393 (J)				0.1	<0.0005
1/26/2023	<0.0005	<0.0005			0.0377	0.0782	0.00164	0.115	
1/30/2023			<0.0005	0.000787					<0.0005

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.0005					
8/25/2022	0.000219 (J)					
10/11/2022		<0.0002	0.0159			
10/12/2022				0.0006		
1/26/2023			0.0179			
1/30/2023	0.000293 (J)	0.000318 (J)		0.00116		
2/1/2023					<0.0005	<0.0005

# Time Series

Constituent: Boron (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.0072 (J)	<0.015	<0.015	<0.015		
9/1/2016	0.0093 (J)	<0.015						<0.015	
9/6/2016			0.0362 (J)						
9/8/2016									1.03
11/15/2016							0.0085 (J)	0.0123 (J)	
11/16/2016	0.0127 (J)	0.0081 (J)		0.0117 (J)	0.0109 (J)	0.0187 (J)			
11/17/2016			0.0617						1.7
2/20/2017						0.0066 (J)	0.0093 (J)	0.0157 (J)	
2/21/2017	0.0071 (J)	<0.015	0.0245 (J)	0.0088 (J)	<0.015				1.55
6/12/2017				0.0133 (J)		<0.015	<0.015	<0.015	
6/13/2017		<0.015	<0.04		<0.015				1.77
6/14/2017	0.0078 (J)								
9/26/2017	<0.04	<0.015	<0.04	0.0093 (J)	<0.015	<0.015	<0.015	<0.015	
9/27/2017									1.75
2/13/2018				0.0141 (J)	<0.015	<0.015	<0.015	<0.015	
2/14/2018	0.0068 (J)	<0.015	0.0314 (J)						1.47
6/26/2018	0.008 (J)	<0.015	0.062	0.012 (J)	<0.015	0.0042 (J)	0.0056 (J)	0.0041 (J)	1.8
12/18/2018	0.0083 (J)	0.0053 (J)	0.055	0.0086 (J)	<0.015	<0.015	0.0062 (J)	<0.015	1.5
3/19/2019	0.008 (J)	<0.015	0.068	0.00565 (JD)	<0.015	<0.015	<0.015	<0.015	
3/20/2019									1.5 (D)
10/15/2019	0.006 (J)	<0.015	0.022 (J)	0.0067 (J)	<0.015	<0.015	0.006 (J)	0.01 (J)	1.2
3/3/2020	0.01 (J)	0.0065 (J)		0.0082 (J)	<0.015	<0.015	<0.015	<0.015	
3/4/2020			0.044 (J)						1.2
9/15/2020	0.0071 (J)	<0.015	0.033 (J)	<0.015	<0.015	<0.015	<0.015	<0.015	1.2
3/1/2021				<0.015				<0.015	
3/2/2021	0.0057 (J)	<0.015	0.042		<0.015	0.0053 (J)	0.0071 (J)		1.1
9/21/2021	<0.04	<0.015				<0.015	<0.015		
9/22/2021			0.047	<0.015	<0.015			<0.015	
9/28/2021									1.1
2/1/2022	<0.04	<0.015	0.046	<0.015	<0.015	<0.015	<0.015	<0.015	
2/2/2022									1.1
8/23/2022	0.00653 (J)	<0.015	0.0498	0.00592 (J)	0.00532 (J)	<0.015	0.00538 (J)	<0.015	1.38
1/24/2023	0.00884 (J)	0.0053 (J)	0.0437	<0.015	<0.015	<0.015	<0.015	<0.015	
1/26/2023									1.45



# Time Series

Constituent: Boron (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			1.96						
9/8/2016	1.63	1.35		1.28					
11/18/2016	1.91								
11/21/2016		1.74	1.68	1.19					
2/21/2017	1.39								
2/22/2017		1.5	1.48	1.43					
6/13/2017	1.62								
6/14/2017		1.6	1.71	1.57					
9/27/2017	1.16	1.83	1.61	1.51					
2/14/2018	1.17	1.8	1.47	1.6					
3/6/2018					0.0198 (J)	0.428			
3/15/2018							0.32		
5/1/2018					0.015 (J)	0.435 (D)	0.32		
6/27/2018	1.4 (J+X)	1.8 (J+X)		1.5 (J+X)		0.49 (J+X)			
6/28/2018			1.4		<0.04 (X)		0.34		
7/31/2018					0.035 (J)				
8/1/2018						0.39	0.28		
8/10/2018								1.3	
8/23/2018					0.022 (J)	0.39		1.4	
9/19/2018					0.021 (J)	0.43		1.7	
10/29/2018					0.021 (J)	0.4	0.3	1.3	
11/28/2018					<0.04 (X)	0.51	0.35	1.5	
12/18/2018		1.5	1.6						
12/19/2018				1.6		0.41	0.35		
12/20/2018	1.4				0.028 (J)			1.6	
1/16/2019							0.37		
1/17/2019								1.5	
2/13/2019								1.7	
3/19/2019	1.1					0.41			
3/20/2019		1.5	1.7	1.4	0.043		0.34	1.6 (D)	
10/16/2019		1.2				0.36	0.31	1.3	
10/17/2019	0.97		1.7	1.5	0.064				
12/3/2019					0.027 (J)				
12/4/2019	0.89		1.6	1.6					
3/4/2020	0.81	1.1				0.49	0.32	1.4	
3/5/2020			1.5	1.5	0.044 (J)				
9/15/2020		1.1							
9/16/2020	1.2		1.7	1.4	0.028 (J)	0.47			
9/17/2020							0.36	1.9	
10/27/2020									0.15
3/2/2021					0.044	0.58			
3/3/2021	0.91	1	1.4						
3/4/2021				1.1			0.31	1.4	
3/5/2021									0.2
9/23/2021					0.029 (J)	0.47			
9/27/2021							0.32		
9/28/2021	0.95	0.9	1.7	0.91				1.4	0.24
2/2/2022			1.9	1	0.034 (J)	0.48		1.5	
2/3/2022		0.93					0.31		0.22
2/4/2022	1								
8/23/2022						0.547			
8/24/2022		1.13	2.15				0.406		



# Time Series

Constituent: Boron (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
8/2/2018			0.016 (J)						
8/3/2018		0.3							
1/18/2019			0.0057 (J)						
1/19/2019		0.39							
10/18/2019		0.38	0.0057 (J)						
9/17/2020		0.43	0.0063 (J)						
10/27/2020	0.029 (J)	0.37							
3/3/2021	0.028 (J)		0.0096 (J)						
3/4/2021		0.36							
9/27/2021		0.39	<0.04				0.26		
9/28/2021	0.023 (J)			0.48	0.36	0.23			
2/2/2022		0.42	<0.04				0.32		
2/3/2022	0.034 (J)				0.38	0.25		0.055 (J)	
2/4/2022				0.51					0.67
8/24/2022	0.036	0.459	0.00563 (J)		0.464	0.293	0.277		
8/25/2022				0.496				0.055	0.672
1/26/2023	0.0397	0.445			0.44	0.288	0.353	0.0543	
1/30/2023			0.0102 (J)	0.554					0.82

# Time Series

Constituent: Boron (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.5					
8/25/2022	0.473					
10/11/2022		0.115	0.0299			
10/12/2022				0.0152		
1/26/2023			0.0322			
1/30/2023	0.561	0.128		0.015		
2/1/2023					0.255	1.29

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.001	<0.001	<0.001	<0.001		
9/1/2016	<0.001	<0.001						<0.001	
9/6/2016			<0.001						
9/8/2016									<0.001
11/15/2016							<0.001	<0.001	
11/16/2016	<0.001	<0.001		<0.001	<0.001	<0.001			
11/17/2016			<0.001						<0.001
2/20/2017						<0.001	<0.001	<0.001	
2/21/2017	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
6/12/2017				<0.001		<0.001	<0.001	<0.001	
6/13/2017		<0.001	<0.001		<0.001				<0.001
6/14/2017	<0.001								
9/26/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
9/27/2017									<0.001
2/13/2018				<0.001	<0.001	<0.001	<0.001	<0.001	
2/14/2018	<0.001	<0.001	<0.001						<0.001
6/26/2018	<0.001	<0.001	0.00015 (J)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/31/2018	<0.001	<0.001							
12/18/2018	<0.001	<0.001	0.0001 (J)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/27/2019	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/29/2019			<0.001						
10/15/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/3/2020	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	
3/4/2020			<0.001						<0.001
8/18/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
8/19/2020									<0.001
9/15/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/1/2021				<0.001				<0.001	
3/2/2021	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		<0.001
9/21/2021	<0.001	<0.001				<0.001	<0.001		
9/22/2021			<0.001	<0.001	<0.001			<0.001	
9/28/2021									<0.001
2/1/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2/2/2022									<0.001
8/23/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/24/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1/26/2023									<0.001

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.001						
9/8/2016	7E-05 (J)	<0.001		<0.001					
11/18/2016	9E-05 (J)								
11/21/2016		<0.001	8E-05 (J)	8E-05 (J)					
2/21/2017	<0.001								
2/22/2017		<0.001	<0.001	0.0001 (J)					
6/13/2017	<0.001								
6/14/2017		<0.001	<0.001	<0.001					
9/27/2017	<0.001	<0.001	<0.001	<0.001					
2/14/2018	<0.001	<0.001	<0.001	<0.001					
3/6/2018					<0.001	<0.001			
3/15/2018							0.038		
5/1/2018					<0.001	<0.001 (D)	0.011		
6/27/2018	<0.001	<0.001		0.00011 (J)		0.00014 (J)			
6/28/2018			<0.001		<0.001		0.087		
7/31/2018					<0.001				
8/1/2018						0.00011 (J)	0.042		
8/10/2018								<0.001	
8/23/2018					<0.001	0.00018 (J)		<0.001	
9/19/2018					<0.001	0.00015 (J)		<0.001	
10/29/2018					9.8E-05 (J)	0.00019 (J)	0.083	<0.001	
11/28/2018					<0.001	0.00022 (J)	0.031	<0.001	
12/18/2018		<0.001	<0.001						
12/19/2018				<0.001 (X)		<0.001	0.042		
12/20/2018	<0.001				<0.001 (X)			<0.001	
1/16/2019							0.028		
1/17/2019								<0.001	
2/13/2019								<0.001	
8/27/2019			<0.001	<0.001					
8/28/2019	<0.001	<0.001			<0.001	0.00017 (J)			
8/29/2019							0.0071	<0.001	
10/16/2019		<0.001				0.00018 (J)	0.014	<0.001	
10/17/2019	<0.001		<0.001	<0.001	<0.001				
12/3/2019					0.00011 (J)				
12/4/2019	<0.001		<0.001	<0.001					
3/4/2020	<0.001	<0.001				0.00024 (J)	0.013	<0.001	
3/5/2020			<0.001	<0.001	<0.001				
8/19/2020	<0.001	<0.001	<0.001	<0.001					
8/20/2020					0.00014 (J)	<0.001	0.0079	<0.001	
9/15/2020		<0.001							
9/16/2020	<0.001		<0.001	<0.001	<0.001	<0.001			
9/17/2020							0.021	<0.001	
10/27/2020									<0.001
3/2/2021					0.0002 (J)	<0.001			
3/3/2021	<0.001	<0.001	<0.001						
3/4/2021				<0.001			0.019	<0.001	
3/5/2021									<0.001
9/23/2021					<0.001	<0.001			
9/27/2021							0.0095		
9/28/2021	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
2/2/2022			0.00014 (J)	<0.001	<0.001	0.00015 (J)		<0.001	
2/3/2022		<0.001					0.0085		<0.001

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
2/4/2022	<0.001								
8/23/2022						<0.001			
8/24/2022		<0.001	<0.001				0.00818		
8/25/2022	<0.001			<0.001	<0.001			<0.001	<0.001
1/24/2023				<0.001					
1/25/2023	<0.001				<0.001		0.00726	<0.001	
1/26/2023		<0.001	<0.001			<0.001			
1/27/2023									<0.001

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
8/2/2018			<0.001						
8/3/2018		0.0015							
1/18/2019			<0.001						
1/19/2019		0.0016							
10/18/2019		0.00083 (J)	<0.001						
8/20/2020		0.0019 (J)	<0.001						
9/17/2020		0.033	<0.001						
10/27/2020	<0.001	0.0051							
3/3/2021	<0.001		<0.001						
3/4/2021		0.017							
9/27/2021		0.0031	<0.001				0.00081		
9/28/2021	<0.001			0.00064	0.0042	0.016			
2/2/2022		0.0043	<0.001				0.00014 (J)		
2/3/2022	<0.001				0.0038	0.016		0.006	
2/4/2022				0.00072					<0.001
8/24/2022	<0.001	0.00478	<0.001		0.0046	0.017	0.000859 (J)		
8/25/2022				<0.001				0.00536	<0.001
1/26/2023	<0.001	0.00101			0.00435	0.0152	0.000517 (J)	0.00531	
1/30/2023			<0.001	0.00132					<0.001



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.0004 (J)					
8/25/2022	0.000618 (J)					
10/11/2022		<0.001	0.000606 (J)			
10/12/2022				<0.0003		
1/26/2023			0.00119			
1/30/2023	0.00107	<0.001		0.00126		
2/1/2023					<0.001	<0.001

# Time Series

Constituent: Calcium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				12.6	4.09	13.5	19.6		
9/1/2016	8.98	4.61						3.3	
9/6/2016			12.8						
9/8/2016									59.4
11/15/2016							21.7	3.44	
11/16/2016	15.4	4.17		12.1	4.25	14.9			
11/17/2016			19.2						78.4
2/20/2017						13.9	21.1	3.52	
2/21/2017	17.4	5	15.1	11.4	4.02				80.9
6/12/2017				9.34		13.7	21.5	3.11	
6/13/2017		4.98	10.2		3.84				62
6/14/2017	18.1								
9/26/2017	19.3	4.49	15	14.3	3.31	14.4	24	3.15	
9/27/2017									65.8
2/13/2018				<25	3.94	<25	<25	3.65	
2/14/2018	<25	<25	<25						58.8
6/26/2018	15.5 (J)	6.4	18.5 (J)	16 (J)	3.6	13.5 (J)	23.5 (J)	3.3	55.5
7/31/2018	18.2 (J)	6.1							
12/18/2018	18.7 (J)	5.5	16.8 (J)	14.5 (J)	3.8	16.4 (J)	19.8 (J)	3.5	54.7
3/19/2019	15.9 (J)	5.9	13.5 (J)	14.3 (JD)	3.9	12.3 (J)	21.4 (J)	3.6	
3/20/2019									53.95 (D)
10/15/2019	15.9	6.2	8.6	15.1	3.7	14.4	20	3.5	48.3
3/3/2020	19.4	6.8		20	4	14.9	23.2	5	
3/4/2020			11.5						52
9/15/2020	14.5	5.7	10.7	14.1	3.9	12.7	16.8	3.7	40.1
3/1/2021				15.4				4.2	
3/2/2021	11.7	5.4	11.6		4	13.2	16.8		44.1
9/21/2021	16.4	5.4				14.1	19.1		
9/22/2021			9.2	15.9	4.3			4.1	
9/28/2021									38.4
2/1/2022	14.2	5.3	10.7	14.4	4.4	14.5	19.1	4.2	
2/2/2022									44.3
8/23/2022	15.8	6.09	8.09	13.9	4.65	14.3	18.2	3.97	51.5
1/24/2023	13.7	5.62	6.97	14.2	4.86	15.8	19.4	3.9	
1/26/2023									57.6

# Time Series

Constituent: Calcium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			63.3						
9/8/2016	87.2	93.9		60.5					
11/18/2016	82.4								
11/21/2016		99.1	60.7	31.1					
2/21/2017	75.1								
2/22/2017		105	62.1	67.3					
6/13/2017	61								
6/14/2017		91.3	63.5	60.2					
9/27/2017	72.6	84	63.5	68.4					
2/14/2018	74.1	72.1	62.8	70.2					
3/6/2018					39.5	326			
3/15/2018							233		
5/1/2018					45.5	302 (D)	225		
6/27/2018	68.2	61.1		67.1		340			
6/28/2018			73.3		41.9		242		
7/31/2018					41.5				
8/1/2018						358	246		
8/10/2018								410 (O)	
8/23/2018					42.3	323		33.9	
9/19/2018					41.9	321		42.3	
10/29/2018					40.8	326	236	39.8	
11/28/2018					45.1	354	254	38.2	
12/18/2018		52.9	102						
12/19/2018				61.2		330	252		
12/20/2018	63.9				39			43.2	
1/16/2019							248		
1/17/2019								39.4	
2/13/2019								36.9	
3/19/2019	60.2					335			
3/20/2019		55.4	141	52.8	31.2		222	40.85 (D)	
10/16/2019		54				338	241	48.4	
12/3/2019					43.7				
12/4/2019	76.8		92.6	52.7					
3/4/2020	72.3	59.3				353	245	49.5	
3/5/2020			119	52.1	37.9				
9/15/2020		55.1							
9/16/2020	62.5		106	43.1	39.7	309			
9/17/2020							206	35.4	
10/27/2020									159
3/2/2021					33.9	353			
3/3/2021	58.2	73.3	122						
3/4/2021				35.7			214	47.5	
3/5/2021									207
9/23/2021					32	336			
9/27/2021							196		
9/28/2021	50.4	59.5	212	33.9				39.5	225
2/2/2022			232	44.2	33.8	320		40.1	
2/3/2022		58.7					220		222
2/4/2022	61.7								
8/23/2022						323			
8/24/2022		61	316				215		
8/25/2022	64			48.5	33.5			38.3	210



# Time Series

Constituent: Calcium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			9.1						
1/19/2019		196							
10/18/2019		177	7.1						
9/17/2020		168	7.7						
10/27/2020	132	183							
3/3/2021	119		7.9						
3/4/2021		182							
9/27/2021		187	7.5				230		
9/28/2021	113			51.1	108	274			
2/2/2022		187	7.8				215		
2/3/2022	122				120	279		213	
2/4/2022				67.6					42.2
8/24/2022	118	197	7.94		146	281	214		
8/25/2022				53				267	45.1
1/26/2023	119	198			151	284	214	278	
1/30/2023			7.87	102					49.8

# Time Series

Constituent: Calcium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	102					
8/25/2022	104					
10/11/2022		200	230			
10/12/2022				320		
1/26/2023			235			
1/30/2023	124	217		372		
2/1/2023					86.1	69.5



# Time Series

Constituent: Chloride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			6.7						
9/8/2016	6	6.4		6.8					
11/18/2016	6.3								
11/21/2016		6.9	6.5	7.8					
2/21/2017	5.1								
2/22/2017		6.2	5.6	7					
6/13/2017	4.7								
6/14/2017		7.2	5.7	7.1					
9/27/2017	4.9	8.7	6	7.2					
2/14/2018	5.6	7.2	5.9	7.4					
3/6/2018					56.6	8.4			
3/15/2018							23.3		
5/1/2018					58.5	5.7 (JXD)	23.4		
6/27/2018	5.9	6.3		7.1		4.4			
6/28/2018			7 (J-X)		50.2 (J-X)		24 (J-X)		
7/31/2018					59				
8/1/2018						5.2	25.7		
8/10/2018								6.9	
8/23/2018					54	3.6		7.5	
9/19/2018					58.4	4.1		6.6	
10/29/2018					62.6	4.3	24.9	7.8	
11/28/2018					58.1	5.1	24	7.2	
12/18/2018		5.4	5.8						
12/19/2018				7 (J-X)		4.5 (J-X)	23.3 (J-X)		
12/20/2018	5.6 (J-X)				47.2 (J-X)			6.6 (J-X)	
1/16/2019							24.1		
1/17/2019								6.4	
2/13/2019								6.5	
3/19/2019	5.8					4.7			
3/20/2019		5.6	5.8	7.3	27.7		23.5	6.7 (D)	
10/16/2019		6.9				4.6	21.9	7	
12/3/2019					52.8				
12/4/2019	5.6		5	6.6					
3/4/2020	5.1	5.8				4.2	21.6	6.1	
3/5/2020			4.3	6	37.1				
9/15/2020		5.5							
9/16/2020	5.4		4.4	5.6	54.9	4.1			
9/17/2020							20.1	6.3	
10/27/2020									5.6
3/2/2021					25.8	4.8			
3/3/2021	4.5	5.6	4						
3/4/2021				4.6			18.9	5.6	
3/5/2021									8
9/23/2021					29.3	4.3			
9/27/2021							16.2		
9/28/2021	3.7	5.4	3.4	3.6				5.5	13
2/2/2022			4	3.8	23.4	4.2		6.1	
2/3/2022		6.1					17.4		12.5
2/4/2022	4.6								
8/23/2022						4.49			
8/24/2022		5.84	4.91				15.8		
8/25/2022	4.65			3.96	14.9			6.27	26.2





# Time Series

Constituent: Chloride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			4.6						
1/19/2019		11.6							
10/18/2019		10.9	4.7						
9/17/2020		10.5	4.6						
10/27/2020	6.3	11							
3/3/2021	18.9		4.5						
3/4/2021		12.2							
9/27/2021		9.4	3.8				20		
9/28/2021	12.8			5.9	9.6	27.2			
2/2/2022		9.7	4.2				19.2		
2/3/2022	15.2				11.9	30.7		36.5	
2/4/2022				7.2					6.2
8/24/2022	17.5	9.64	4.58		10.7	26.7	19.2		
8/25/2022				8.41				53	6.15
1/26/2023	21.8	9.5			12.1	28.3	17	41.4	
1/30/2023			4.45	9.46					7.18

# Time Series

Constituent: Chloride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	9.8					
8/25/2022	9.97					
10/11/2022		10.8	48.7			
10/12/2022				55.3		
1/26/2023			26.5			
1/30/2023	9.85	10.2		40.7		
2/1/2023					12.7	5.8

# Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.001 (J)	0.0034 (J)	0.0058 (J)	0.0028 (J)		
9/1/2016	0.0009 (J)	0.0013 (J)						0.0147	
9/6/2016			<0.01						
9/8/2016									<0.01
11/15/2016							0.003 (J)	0.0154 (B)	
11/16/2016	0.0015 (J)	0.0012 (J)		<0.01	0.0029 (J)	0.0051 (J)			
11/17/2016			<0.01						<0.01
2/20/2017						0.0049 (J)	0.0047 (J)	0.014	
2/21/2017	0.001 (J)	0.0017 (J)	<0.01	<0.01	0.0036 (J)				<0.01
6/12/2017				0.0005 (J)		0.0052 (J)	0.0041 (J)	0.016	
6/13/2017		0.0019 (J)	<0.01		0.0038 (J)				<0.01
6/14/2017	0.0012 (J)								
9/26/2017	0.0014 (J)	0.0018 (J)	<0.01	0.0005 (J)	0.0045 (J)	0.0039 (J)	0.0037 (J)	0.0144	
9/27/2017									<0.01
2/13/2018				<0.01	<0.01	<0.01	<0.01	0.0144	
2/14/2018	<0.01	<0.01	<0.01						<0.01
6/26/2018	<0.01	0.0022 (J)	<0.01	<0.01	0.008 (J)	0.0053 (J)	0.0043 (J)	0.015	<0.01
12/18/2018	0.0016 (J)	0.0022 (J)	<0.01	<0.01	0.012	0.0032 (J)	0.0054 (J)	0.015	<0.01
8/27/2019	0.0023 (J)	0.0024 (J)		0.0004 (J)	0.0083 (J)	0.0055 (J)	0.0043 (J)	0.015	0.0016 (J)
8/29/2019			0.0016 (J)						
10/15/2019	0.0021 (J)	0.0023 (J)	0.0017 (J)	<0.01	0.0083 (J)	0.0047 (J)	0.0055 (J)	0.014	0.00098 (J)
3/3/2020	0.0026 (J)	0.0028 (J)		0.00047 (J)	0.0098 (J)	0.0069 (J)	0.0057 (J)	0.011	
3/4/2020			0.0019 (J)						<0.01
8/18/2020	0.0023 (J)	0.0029 (J)	0.0017 (J)	0.00096 (J)	0.0085 (J)	0.0069 (J)	0.005 (J)	0.015	
8/19/2020									<0.01
9/15/2020	0.00096 (J)	0.0025 (J)	0.0019 (J)	<0.01	0.0082 (J)	0.0069 (J)	0.0048 (J)	0.014	<0.01
3/1/2021				<0.01				0.011	
3/2/2021	0.002 (J)	0.0021 (J)	0.002 (J)		0.0074	0.0064	0.0044 (J)		<0.01
9/21/2021	0.0023 (J)	0.0024 (J)				0.0064	0.0044 (J)		
9/22/2021			0.0026 (J)	<0.01	0.0091			0.014	
9/28/2021									<0.01
2/1/2022	0.0027 (J)	0.0029 (J)	0.0028 (J)	0.0013 (J)	0.0092	0.0066	0.0052	0.015	
2/2/2022									<0.01
8/23/2022	<0.01	<0.01	<0.01	<0.01	0.00908 (J)	0.00647 (J)	0.00435 (J)	0.0143	<0.01
1/24/2023	<0.01	<0.01	<0.01	<0.01	0.0095 (J)	0.00513 (J)	0.00572 (J)	0.0139	
1/26/2023									<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.01						
9/8/2016	0.001 (J)	<0.01		<0.01					
11/18/2016	<0.01								
11/21/2016		<0.01	<0.01	<0.01					
2/21/2017	<0.01								
2/22/2017		<0.01	<0.01	0.0012 (J)					
6/13/2017	<0.01								
6/14/2017		<0.01	<0.01	0.0009 (J)					
9/27/2017	<0.01	<0.01	<0.01	0.0011 (J)					
2/14/2018	<0.01	<0.01	<0.01	<0.01					
3/6/2018					<0.01	<0.01			
3/15/2018							<0.01		
5/1/2018					<0.01	<0.01 (D)	<0.01		
6/27/2018	<0.01	<0.01		<0.01		<0.01			
6/28/2018			<0.01		<0.01		0.0023 (J)		
7/31/2018					<0.01				
8/1/2018						<0.01	0.0046 (J)		
8/10/2018								0.0017 (J)	
8/23/2018					<0.01	<0.01		<0.01	
9/19/2018					<0.01	<0.01		<0.01	
10/29/2018					<0.01	<0.01	<0.01	<0.01	
11/28/2018					<0.01	<0.01	<0.01	<0.01	
12/18/2018		<0.01	<0.01						
12/19/2018				<0.01		0.0018 (J)	<0.01		
12/20/2018	0.003 (J)				<0.01			<0.01	
1/16/2019							<0.01		
1/17/2019								<0.01	
2/13/2019								<0.01	
8/27/2019			0.0051 (J)	0.0019 (J)					
8/28/2019	<0.01	<0.01			<0.01	0.00092 (J)			
8/29/2019							<0.01	<0.01	
10/16/2019		<0.01				<0.01	0.0005 (J)	<0.01	
12/3/2019					<0.01				
12/4/2019	<0.01		<0.01	0.0014 (J)					
3/4/2020	<0.01	0.02				0.00078 (J)	0.00071 (J)	<0.01	
3/5/2020			<0.01	0.0014 (J)	0.00053 (J)				
8/19/2020	<0.01	<0.01	<0.01	0.0021 (J)					
8/20/2020					0.001 (J)	0.00064 (J)	0.00065 (J)	<0.01	
9/15/2020		<0.01							
9/16/2020	<0.01		0.014	0.0025 (J)	0.0014 (J)	<0.01			
9/17/2020							0.00098 (J)	<0.01	
3/2/2021					<0.01	<0.01			
3/3/2021	<0.01	<0.01	<0.01						
3/4/2021				0.002 (J)			0.001 (J)	<0.01	
3/5/2021									<0.01
9/23/2021					<0.01	<0.01			
9/27/2021							<0.01		
9/28/2021	<0.01	<0.01	<0.01	0.0021 (J)				<0.01	<0.01
2/2/2022			<0.01	0.0021 (J)	<0.01	<0.01		<0.01	
2/3/2022		<0.01					<0.01		<0.01
2/4/2022	<0.01								
8/23/2022						<0.01			

# Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022		<0.01	<0.01				<0.01		
8/25/2022	<0.01			<0.01	<0.01			<0.01	<0.01
1/24/2023				<0.01					
1/25/2023	<0.01				<0.01		<0.01	<0.01	
1/26/2023		<0.01	<0.01			<0.01			
1/27/2023									<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.01						
1/19/2019		<0.01							
10/18/2019		<0.01	0.00042 (J)						
8/20/2020		<0.01	0.00063 (J)						
9/17/2020		0.00098 (J)	<0.01						
3/3/2021	<0.01		<0.01						
3/4/2021		0.0008 (J)							
9/27/2021		<0.01	<0.01				0.0077		
9/28/2021	<0.01			<0.01	<0.01	<0.01			
2/2/2022		<0.01	<0.01				<0.01		
2/3/2022	<0.01				<0.01	<0.01		0.0032 (J)	
2/4/2022				<0.01					<0.01
8/24/2022	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01		
8/25/2022				<0.01				0.00324 (J)	<0.01
1/26/2023	<0.01	<0.01			<0.01	<0.01	<0.01	0.00311 (J)	
1/30/2023			<0.01	<0.01					<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.01					
8/25/2022	<0.01					
10/11/2022		<0.01	0.00405 (J)			
10/12/2022				<0.01		
1/26/2023			0.00352 (J)			
1/30/2023	<0.01	<0.01		<0.01		
2/1/2023					<0.01	0.00338 (J)



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.0016 (J)	0.0034 (J)	0.0013 (J)	<0.001		
9/1/2016	<0.001	<0.001						<0.001	
9/6/2016			0.0028 (J)						
9/8/2016									0.0073 (J)
11/15/2016							<0.001	<0.001	
11/16/2016	<0.001	<0.001		0.0006 (J)	0.003 (J)	<0.01 (o)			
11/17/2016			0.0072 (J)						0.0086 (J)
2/20/2017						0.0012 (J)	0.0009 (J)	<0.001	
2/21/2017	<0.001	<0.001	0.0045 (J)	<0.005	0.0028 (J)				0.0079 (J)
6/12/2017				<0.005		0.0011 (J)	0.0006 (J)	0.0003 (J)	
6/13/2017		<0.001	0.0036 (J)		0.0025 (J)				0.0083 (J)
6/14/2017	<0.001								
9/26/2017	<0.001	<0.001	0.0037 (J)	<0.005	0.002 (J)	0.0016 (J)	0.0005 (J)	0.0003 (J)	
9/27/2017									0.0087 (J)
2/13/2018				<0.005	<0.005	<0.01 (o)	<0.001	<0.001	
2/14/2018	<0.001	<0.001	0.0135						<0.01
6/26/2018	<0.001	<0.001	0.0098 (J)	<0.005	0.0019 (J)	0.0009 (J)	0.00052 (J)	<0.001	0.006 (J)
7/31/2018	<0.001	<0.001							
12/18/2018	<0.001	<0.001	0.0057 (J)	<0.005	0.0032 (J)	0.00062 (J)	<0.001	<0.001	0.0055 (J)
8/27/2019	<0.001	<0.001		<0.005	0.0012 (J)	0.00068 (J)	0.00042 (J)	<0.001	0.0042 (J)
8/29/2019			0.0015 (J)						
10/15/2019	<0.001	<0.001	0.0011 (J)	<0.005	0.00097 (J)	0.00083 (J)	<0.001	<0.001	0.0043 (J)
3/3/2020	<0.001	<0.001		<0.005	0.0015 (J)	0.00043 (J)	<0.001	0.0011 (J)	
3/4/2020			0.0012 (J)						0.0039 (J)
8/18/2020	<0.001	<0.001	0.00067 (J)	<0.005	0.0014 (J)	0.00048 (J)	<0.001	0.00061 (J)	
8/19/2020									0.0039 (J)
9/15/2020	<0.001	<0.001	0.00076 (J)	<0.005	0.001 (J)	0.0005 (J)	<0.001	<0.001	0.0035 (J)
3/1/2021				<0.005				<0.001	
3/2/2021	<0.001	<0.001	<0.001		0.001 (J)	0.00053 (J)	<0.001		0.003 (J)
9/21/2021	<0.001	<0.001				0.00071 (J)	<0.001		
9/22/2021			<0.001	0.0015 (J)	<0.005			0.00078 (J)	
9/28/2021									0.0029 (J)
2/1/2022	<0.001	<0.001	0.00052 (J)	0.00079 (J)	0.0011 (J)	0.0007 (J)	<0.001	<0.001	
2/2/2022									0.0027 (J)
8/23/2022	<0.001	<0.001	0.000308 (J)	0.000767 (J)	0.000844 (J)	0.000553 (J)	<0.001	<0.001	0.00342
1/24/2023	<0.001	<0.001	<0.001	0.00154	0.000829 (J)	0.000677 (J)	<0.001	<0.001	
1/26/2023									0.0032

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			0.0006 (J)						
9/8/2016	0.0149	0.0122		0.0025 (J)					
11/18/2016	0.0131								
11/21/2016		0.0122	<0.04	0.001 (J)					
2/21/2017	0.0099 (J)								
2/22/2017		0.0136	0.0016 (J)	<0.001					
6/13/2017	0.0094 (J)								
6/14/2017		0.0113	0.0015 (J)	<0.001					
9/27/2017	0.0095 (J)	0.0094 (J)	0.0007 (J)	<0.001					
2/14/2018	0.0112	<0.01	<0.04	<0.001					
3/6/2018					0.0162	<0.001			
3/15/2018							1.3		
5/1/2018					0.015	0.0125 (D)	1.4		
6/27/2018	0.0093 (J)	0.0069 (J)		<0.001		0.0076 (J)			
6/28/2018			0.00078 (J)		0.01		1.3		
7/31/2018					0.0098 (J)				
8/1/2018						0.004 (J)	1.4		
8/10/2018								0.0043 (J)	
8/23/2018					0.0093 (J)	0.0016 (J)		0.0026 (J)	
9/19/2018					0.0084 (J)	0.0018 (J)		0.0028 (J)	
10/29/2018					0.0064 (J)	0.0014 (J)	1.4	0.0015 (J)	
11/28/2018					0.0071 (J)	0.0016 (J)	1.4	0.0012 (J)	
12/18/2018		0.0067 (J)	0.0011 (J)						
12/19/2018				<0.001		0.0014 (J)	1.5		
12/20/2018	0.0081 (J)				0.069			<0.001	
1/16/2019							1.4		
1/17/2019								<0.001	
2/13/2019								<0.001	
8/27/2019			0.0014 (J)	<0.001					
8/28/2019	0.01	0.0061			0.011	0.00037 (J)			
8/29/2019							1.3	0.00063 (J)	
10/16/2019		0.0058				0.00032 (J)	1.4	<0.001	
10/17/2019	0.011 (J)		<0.04	<0.001	0.0098 (J)				
12/3/2019					0.0076				
12/4/2019	0.0086		0.0012 (J)	<0.001					
3/4/2020	0.008	0.007				0.0011 (J)	1.5	<0.001	
3/5/2020			0.0011 (J)	<0.001	0.0091				
8/19/2020	0.0078	0.0065	0.0008 (J)	<0.001					
8/20/2020					0.022	0.00043 (J)	1.4	<0.001	
9/15/2020		0.0064							
9/16/2020	0.008		0.0008 (J)	<0.001	0.0049 (J)	0.00053 (J)			
9/17/2020							1.4	0.00046 (J)	
10/27/2020									0.0037 (J)
3/2/2021					0.0057	0.0005 (J)			
3/3/2021	0.0062	0.0095	0.0015 (J)						
3/4/2021				<0.001			1.4	<0.001	
3/5/2021									0.0038 (J)
9/23/2021					0.0049 (J)	<0.001			
9/27/2021							1.3		
9/28/2021	0.0047 (J)	0.0069	0.001 (J)	<0.001				<0.001	0.2
2/2/2022			0.0012 (J)	<0.001	0.0054	<0.001		<0.001	
2/3/2022		0.0077					1.5		0.1

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
2/4/2022	0.0076								
8/23/2022						<0.001			
8/24/2022		0.0066	0.00163				1.42		
8/25/2022	0.0079			<0.001	0.00357			<0.001	0.506
1/24/2023				<0.001					
1/25/2023	0.00711				0.00258		1.35	<0.001	
1/26/2023		0.00823	0.00158			0.000376 (J)			
1/27/2023									0.0728

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
8/2/2018			0.0079 (J)						
8/3/2018		0.041							
1/18/2019			0.0082 (J)						
1/19/2019		0.018							
10/18/2019		0.017	0.0063						
8/20/2020		0.02	0.0039 (J)						
9/17/2020		0.022	0.0062						
10/27/2020	0.00041 (J)	0.02							
3/3/2021	0.0004 (J)		0.005						
3/4/2021		0.019							
9/27/2021		0.02	0.0022 (J)				0.45		
9/28/2021	<0.001			0.055	0.39	3.5			
2/2/2022		0.023	0.0028 (J)				0.51		
2/3/2022	<0.001				0.43	3.4		1.6	
2/4/2022				0.094					0.019
8/24/2022	0.000306 (J)	0.0239	0.00193		0.503	3.57	0.562		
8/25/2022				0.0194				1.46	0.0232
1/26/2023	<0.001	0.0231			0.518	3.64	0.604	1.86	
1/30/2023			0.00115	0.151					0.028

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.27					
8/25/2022	0.37					
10/11/2022		0.364	0.481			
10/12/2022				9.05		
1/26/2023			0.405			
1/30/2023	0.425	0.345		11		
2/1/2023					0.000825 (J)	0.000668 (J)



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			1.01 (U)						
9/8/2016	1.74	1.13		0.706 (U)					
11/18/2016	0.571 (U)								
11/21/2016		1.59	0.201 (U)	0.0569 (U)					
2/21/2017	1.28 (U)								
2/22/2017		1.64	0.57 (U)	1.07 (U)					
6/13/2017	0.521 (U)								
6/14/2017		1.32	0.726 (U)	0.459 (U)					
9/27/2017	0.595 (U)	1.7	0.884 (U)	0.807 (U)					
2/14/2018	1.18 (U)	1.89 (J+X)	1.14 (U)	1.67 (J+X)					
3/6/2018					1.25 (U)	1.75 (J+X)			
3/15/2018							1.31		
5/1/2018					0.423 (U)	2.02 (J+XD)	1.69 (J+X)		
6/27/2018	1.3 (U)	1.66 (J+X)		1.34 (UX)		0.878 (U)			
6/28/2018			1.4 (UX)		0.283 (U)		1.04 (U)		
7/31/2018					0.243 (U)				
8/1/2018						0.638 (U)	1.67		
8/10/2018								1.91	
8/23/2018					1.1 (U)	1.14 (U)		1.86 (J+X)	
9/19/2018					0.369 (U)	1.45 (UX)		1.64 (UX)	
10/29/2018					0.401 (U)	1.09 (U)	0.992 (U)	1.36 (U)	
11/28/2018					0.901 (U)	1.67 (UX)	1.76 (UX)	1.07 (U)	
12/18/2018		0.759 (U)	0.661 (U)						
12/19/2018				1.21 (U)		1.3	2.15 (J+X)		
12/20/2018	0.527 (U)				0.657 (U)			0.892 (U)	
1/16/2019							1.39		
1/17/2019								1.1 (U)	
2/13/2019								1.68	
8/27/2019			1.35	0.86 (U)					
8/28/2019	0.643 (U)	1.76			0.528 (U)	0.804 (U)			
8/29/2019							1.33	1.44	
10/16/2019		1.69 (U)				1.28 (U)	2.51	2.13	
10/17/2019	1.07 (U)		1.25 (U)	1.2 (U)	0.977 (U)				
3/4/2020	1.18	1.23				0.862 (U)	1.73	2.3	
3/5/2020			1.35	0.483 (U)	0.921 (U)				
8/19/2020	0.684 (U)	0.876 (U)	1 (U)	0.482 (U)					
8/20/2020					0.501 (U)	1.64	2.78	2.97	
9/15/2020		1.23 (U)							
9/16/2020	0.175 (U)		0.43 (U)	0.195 (U)	0.254 (U)	0.51 (U)			
9/17/2020							0.717 (U)	2.04	
3/2/2021					0.107 (U)	0.571 (U)			
3/3/2021	0.829 (U)	1.31 (U)	0.415 (U)						
3/4/2021				0.32 (U)			1.22	2.04	
3/5/2021									2.11
9/23/2021					0.619 (U)	0.527 (U)			
9/27/2021							2.07		
9/28/2021	3.58	1.49	0.749 (U)	0.947 (U)				3.28	1.05
2/2/2022			1.21 (U)	0.0265 (U)	0.219 (U)	0.145 (U)		2.33	
2/3/2022		0.798 (U)					1.15		1
2/4/2022	0.335 (U)								
8/23/2022						3.74			
8/24/2022		1.97	3.26				1.87		





# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			1.22						
1/19/2019		1.86							
10/18/2019		11.7 (U)	17.1 (U)						
8/20/2020		0.937 (U)	1.19						
9/17/2020		1.76	0.952 (U)						
3/3/2021	2.54		0.599 (U)						
3/4/2021		0.966 (U)							
9/27/2021		0.771 (U)	0.00107 (U)				1.14 (U)		
9/28/2021	1.89			0.0352 (U)	1.66	2.79			
2/2/2022		0.992 (U)	0.0266 (U)				1.16		
2/3/2022	2.23				1.33	2.46		0.766 (U)	
2/4/2022				0.229 (U)					0.768
8/24/2022	3.33	0.625	1.2		1.16	3.5	2.91		
8/25/2022				0.773				1.02	1.52
1/26/2023	3.7	1.53 (U)			4.03	5.31	3.2	1.33 (U)	
1/30/2023			3.19	3.27					6.03

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.874					
8/25/2022	1.88					
10/11/2022		1.36 (U)	0.451 (U)			
10/12/2022				2.14		
1/26/2023			2.18 (U)			
1/30/2023	1.33 (U)	1.99		3.5		
2/1/2023					4.16	0.356 (U)

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.11 (J)	0.05 (J)	0.07 (J)	0.19 (J)		
9/1/2016	0.2 (J)	0.05 (J)						0.06 (J)	
9/6/2016			0.42						
9/8/2016									0.14 (J)
11/15/2016							0.13 (J)	0.06 (J)	
11/16/2016	0.14 (J)	0.03 (J)		0.08 (J)	0.07 (J)	0.07 (J)			
11/17/2016			0.15 (J)						0.27 (J)
2/20/2017						0.06 (J)	0.08 (J)	0.04 (J)	
2/21/2017	0.16 (J)	0.04 (J)	0.1 (J)	0.14 (J)	0.05 (J)				0.6
6/12/2017				0.16 (J)		0.008 (J)	0.07 (J)	0.06 (J)	
6/13/2017		0.008 (J)	0.07 (J)		0.04 (J)				0.19 (J)
6/14/2017	0.09 (J)								
9/26/2017	0.1 (J)	<0.1	<0.1	0.14 (J)	<0.1	<0.1	0.04 (J)	<0.1	
9/27/2017									0.5
2/13/2018				<0.1	<0.1	<0.1	<0.1	<0.1	
2/14/2018	<0.3	<0.1	<0.1						<0.3
6/26/2018	0.079 (J)	0.042 (J)	0.053 (J)	0.085 (J)	0.048 (J)	0.045 (J)	0.072 (J)	0.041 (J)	0.15 (J)
12/18/2018	<0.3	<0.1	<0.1	0.085 (J)	<0.1	<0.1	<0.1	<0.1	0.29 (J)
3/19/2019	<0.3	<0.1	<0.1	0.0655 (JD)	0.037 (J)	<0.1	0.06 (J)	0.03 (J)	
3/20/2019									0.17 (JD)
8/27/2019	<0.3	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	0.15 (J)
8/29/2019			0.084 (J)						
10/15/2019	0.047 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	0.045 (J)	<0.1	0.16 (J)
3/3/2020	0.056 (J)	<0.1		0.066 (J)	0.05 (J)	<0.1	0.057 (J)	0.09 (J)	
3/4/2020			<0.1						0.07 (J)
8/18/2020	0.052 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
8/19/2020									0.17
9/15/2020	0.062 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	0.051 (J)	<0.1	0.15
3/1/2021				<0.1				<0.1	
3/2/2021	0.061 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		0.15
9/21/2021	0.071 (J)	<0.1				<0.1	0.056 (J)		
9/22/2021			0.069 (J)	<0.1	<0.1			<0.1	
9/28/2021									0.15
2/1/2022	0.055 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
2/2/2022									0.15
8/23/2022	0.151	0.129	0.157	<0.1	<0.1	<0.1	<0.1	<0.1	0.186
1/24/2023	0.214	0.0926 (J)	0.231	<0.1	<0.1	0.149	0.158	0.12	
1/26/2023									0.202

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			0.43						
9/8/2016	0.31	0.2 (J)		0.15 (J)					
11/18/2016	0.19 (J)								
11/21/2016		0.37	0.24 (J)	0.04 (J)					
2/21/2017	0.35								
2/22/2017		0.37	0.2 (J)	0.08 (J)					
6/13/2017	0.19 (J)								
6/14/2017		0.38	0.15 (J)	0.09 (J)					
9/27/2017	0.4	0.4	0.41	<0.1					
2/14/2018	<0.3	<0.3	<0.3	<0.1					
3/6/2018					0.94	1.1			
3/15/2018							0.84 (JX)		
5/1/2018					<0.1	0.595 (D)	0.91		
6/27/2018	0.26 (J)	0.085 (J)		<0.1		0.27 (J)			
6/28/2018			0.93 (J+X)		0.69 (J+X)		1.1 (J+X)		
7/31/2018					<0.1				
8/1/2018						0.48	2		
8/10/2018								1.6 (O)	
8/23/2018					<0.1	0.34		0.32	
9/19/2018					<0.1	0.23 (J)		0.22 (J)	
10/29/2018					<0.1	<0.1	0.24 (J)	0.14 (J)	
11/28/2018					<0.1	0.063 (J)	0.41	0.24 (J)	
12/18/2018		0.26 (J)	0.54						
12/19/2018				0.23 (J)		0.28 (J)	0.54		
12/20/2018	0.26 (J)				0.12 (J)			0.3	
1/16/2019							1.1		
1/17/2019								0.23 (J)	
2/13/2019								<0.3	
3/19/2019	0.2 (J)					<0.1			
3/20/2019		0.091 (J)	0.31	<0.1	0.066 (J)		0.21 (J)	0.135 (JD)	
8/27/2019			0.12 (J)	<0.1					
8/28/2019	0.074 (J)	0.055 (J)			<0.1	<0.1			
8/29/2019							0.41	0.087 (J)	
10/16/2019		0.11 (J)				0.076 (J)	0.39	0.22 (J)	
12/3/2019					0.19 (J)				
12/4/2019	0.18 (J)		0.26 (J)	0.11 (J)					
3/4/2020	<0.3	<0.3				<0.1	0.14 (J)	0.1 (J)	
3/5/2020			0.051 (J)	<0.1	<0.1				
8/19/2020	0.19	0.12	0.14	<0.1					
8/20/2020					<0.1	<0.1	0.39	0.23	
9/15/2020		0.057 (J)							
9/16/2020	0.15		0.13	<0.1	0.052 (J)	<0.1			
9/17/2020							0.46	0.074 (J)	
10/27/2020									0.28
3/2/2021					0.067 (J)	<0.1			
3/3/2021	0.24	0.13	0.13						
3/4/2021				<0.1			0.6	0.28	
3/5/2021									0.16
9/23/2021					0.06 (J)	<0.1			
9/27/2021							0.43		
9/28/2021	0.16	0.081 (J)	0.11	<0.1				0.12	0.11
2/2/2022			0.1	<0.1	<0.1	<0.1		0.098 (J)	

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
2/3/2022		0.11					0.42		0.15
2/4/2022	0.14								
8/23/2022						<0.1			
8/24/2022		0.103	0.318				0.497		
8/25/2022	0.234			0.138	0.166			0.157	0.106
1/24/2023				0.082 (J)					
1/25/2023	0.152				0.163		0.432	0.169	
1/26/2023		0.0935 (J)	0.167			0.117			
1/27/2023									0.151 (J)

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			0.13 (J)						
1/19/2019		<0.1							
10/18/2019		<0.1	0.09 (J)						
8/20/2020		<0.1	0.056 (J)						
9/17/2020		<0.1	0.062 (J)						
10/27/2020	0.21	<0.1							
3/3/2021	0.28		0.083 (J)						
3/4/2021		0.061 (J)							
9/27/2021		<0.1	0.072 (J)				0.067 (J)		
9/28/2021	0.26			0.085 (J)	0.97	1.6			
2/2/2022		<0.1	0.053 (J)				<0.1		
2/3/2022	0.27				1.8	2.3		2.7	
2/4/2022				0.096 (J)					0.14
8/24/2022	0.318	0.148	0.131		1.09	1.32	0.103		
8/25/2022				0.235				1.8	0.235
1/26/2023	0.354	0.12			1.19	1.66	0.184	2.83	
1/30/2023			0.0983 (J)	0.297					0.23

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.071 (J)					
8/25/2022	<0.1					
10/11/2022		0.0601 (J)	1.51			
10/12/2022				0.0781 (J)		
1/26/2023			1.08			
1/30/2023	0.161	0.0574 (J)		0.0767 (J)		
2/1/2023					0.166	0.0963 (J)

# Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.002	<0.002	<0.002	<0.002		
9/1/2016	<0.002	<0.002						0.0001 (J)	
9/6/2016			<0.002						
9/8/2016									<0.002
11/15/2016							<0.002	<0.002	
11/16/2016	<0.002	<0.002		<0.002	<0.002	<0.002			
11/17/2016			<0.002						<0.002
2/20/2017						<0.002	0.0002 (J)	<0.002	
2/21/2017	<0.002	<0.002	<0.002	<0.002	<0.002				<0.002
6/12/2017				8E-05 (J)		<0.002	0.0001 (J)	8E-05 (J)	
6/13/2017		<0.002	<0.002		<0.002				<0.002
6/14/2017	<0.002								
9/26/2017	<0.002	<0.002	<0.002	7E-05 (J)	7E-05 (J)	<0.002	0.0001 (J)	<0.002	
9/27/2017									<0.002
2/13/2018				<0.002	<0.002	<0.002	<0.002	<0.002	
2/14/2018	<0.002	<0.002	<0.002						<0.002
6/26/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/18/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/27/2019	<0.002	<0.002		<0.002	5.8E-05 (J)	<0.002	0.00036 (J)	<0.002	0.00011 (J)
8/29/2019			7E-05 (J)						
10/15/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	7.9E-05 (J)	<0.002	<0.002
3/3/2020	<0.002	<0.002		<0.002	<0.002	<0.002	7.9E-05 (J)	7.3E-05 (J)	
3/4/2020			<0.002						<0.002
8/18/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0001 (J)	<0.002	
8/19/2020									<0.002
9/15/2020	<0.002	<0.002	<0.002	<0.002	<0.002	0.0013 (J)	4.3E-05 (J)	<0.002	<0.002
3/1/2021				<0.002				<0.002	
3/2/2021	<0.002	<0.002	<0.002		<0.002	3.7E-05 (J)	<0.002		<0.002
9/21/2021	<0.002	<0.002				<0.002	<0.002		
9/22/2021			<0.002	<0.002	<0.002			<0.002	
9/28/2021									<0.002
2/1/2022	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
2/2/2022									<0.002
8/23/2022	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/24/2023	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
1/26/2023									<0.002



# Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.002						
9/8/2016	<0.002	0.0004 (J)		<0.002					
11/18/2016	<0.002								
11/21/2016		0.0006 (J)	<0.002	<0.002					
2/21/2017	<0.002								
2/22/2017		0.0005 (J)	<0.002	<0.002					
6/13/2017	<0.002								
6/14/2017		0.0004 (J)	<0.002	<0.002					
9/27/2017	<0.002	0.0006 (J)	<0.002	<0.002					
2/14/2018	<0.002	<0.005 (o)	<0.002	<0.002					
3/6/2018					<0.002	<0.002			
3/15/2018							<0.002		
5/1/2018					<0.002	<0.002 (D)	<0.002		
6/27/2018	<0.002	0.00032 (J)		<0.002		<0.002			
6/28/2018			<0.002		<0.002		0.00054 (J)		
7/31/2018					<0.002				
8/1/2018						<0.002	<0.002		
8/10/2018								<0.002	
8/23/2018					<0.002	<0.002		<0.002	
9/19/2018					<0.002	<0.002		<0.002	
10/29/2018					<0.002	<0.002	0.0003 (J)	<0.002	
11/28/2018					<0.002	<0.002	<0.002	<0.002	
12/18/2018		0.00038 (J)	<0.002						
12/19/2018				<0.002		<0.002	<0.002		
12/20/2018	<0.002				<0.002			<0.002	
1/16/2019							<0.002		
1/17/2019								<0.002	
2/13/2019								<0.002	
8/27/2019			<0.002	<0.002					
8/28/2019	<0.002	0.00027 (J)			<0.002	<0.002			
8/29/2019							4.9E-05 (J)	<0.002	
10/16/2019		0.00027 (J)				<0.002	8.5E-05 (J)	<0.002	
12/3/2019					<0.002				
12/4/2019	6.3E-05 (J)		<0.002	<0.002					
3/4/2020	<0.002	0.0003 (J)				0.00012 (J)	0.0001 (J)	<0.002	
3/5/2020			<0.002	<0.002	0.00026 (J)				
8/19/2020	<0.002	0.00025 (J)	<0.002	<0.002					
8/20/2020					0.00021 (J)	4.8E-05 (J)	6.7E-05 (J)	<0.002	
9/15/2020		0.00029 (J)							
9/16/2020	<0.002		0.00011 (J)	<0.002	5.3E-05 (J)	6.6E-05 (J)			
9/17/2020							0.00015 (J)	<0.002	
3/2/2021					<0.002	<0.002			
3/3/2021	<0.002	0.00033 (J)	<0.002						
3/4/2021				<0.002			0.00016 (J)	4.2E-05 (J)	
3/5/2021									5.6E-05 (J)
9/23/2021					<0.002	<0.002			
9/27/2021							<0.002		
9/28/2021	<0.002	<0.002	<0.002	<0.002				<0.002	<0.002
2/2/2022			<0.002	<0.002	<0.002	<0.002		<0.002	
2/3/2022		<0.002					<0.002		<0.002
2/4/2022	<0.002								
8/23/2022						<0.002			

# Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022		<0.002	<0.002				<0.002		
8/25/2022	<0.002			<0.002	<0.002			<0.002	<0.002
1/24/2023				<0.002					
1/25/2023	<0.002				0.000595 (J)		<0.002	<0.002	
1/26/2023		<0.002	<0.002			<0.002			
1/27/2023									<0.002

# Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.002						
1/19/2019		<0.002							
10/18/2019		<0.002	<0.002						
8/20/2020		<0.002	<0.002						
9/17/2020		0.00036 (J)	<0.002						
3/3/2021	0.00013 (J)		<0.002						
3/4/2021		0.00017 (J)							
9/27/2021		<0.002	<0.002				0.0019		
9/28/2021	<0.002			<0.002	<0.005	<0.002			
2/2/2022		<0.002	<0.002				<0.002		
2/3/2022	<0.002				<0.005	<0.002		<0.01	
2/4/2022				<0.002					<0.002
8/24/2022	<0.002	<0.002	<0.002		0.000894 (J)	<0.002	0.00113 (J)		
8/25/2022				<0.002				<0.01	<0.002
1/26/2023	<0.002	<0.002			0.000895 (J)	<0.002	<0.002	<0.01	
1/30/2023			<0.002	<0.002					<0.002

# Time Series

Constituent: Lead (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.002					
8/25/2022	<0.002					
10/11/2022		<0.002	0.00132 (J)			
10/12/2022				<0.002		
1/26/2023			0.00133 (J)			
1/30/2023	<0.002	<0.002		<0.002		
2/1/2023					<0.002	<0.002

# Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.0268 (J)	<0.01	<0.01	<0.01		
9/1/2016	0.0061 (J)	<0.01						0.003 (J)	
9/6/2016			0.0028 (J)						
9/8/2016									<0.01
11/15/2016							<0.01	0.0033 (J)	
11/16/2016	0.0054 (J)	<0.01		0.0201 (J)	<0.01	0.0033 (J)			
11/17/2016			0.0063 (J)						<0.01
2/20/2017						<0.01	<0.01	0.0025 (J)	
2/21/2017	0.0058 (J)	<0.01	0.0052 (J)	0.0128 (J)	<0.01				<0.01
6/12/2017				0.0245 (J)		0.0019 (J)	<0.01	0.0027 (J)	
6/13/2017		<0.01	0.0061 (J)		<0.01				<0.01
6/14/2017	0.0054 (J)								
9/26/2017	0.0037 (J)	<0.01	0.0087 (J)	0.0549	<0.01	0.0022 (J)	<0.01	0.0023 (J)	
9/27/2017									<0.01
2/13/2018				0.0595	<0.01	0.0041 (J)	<0.01	0.0027 (J)	
2/14/2018	0.0038 (J)	<0.01	0.0104 (J)						<0.01
6/26/2018	0.0045 (J)	<0.01	0.0095 (J)	0.089	<0.01	0.0025 (J)	<0.01	0.0029 (J)	<0.01
12/18/2018	0.0038 (J)	<0.01	0.0091 (J)	0.024 (J)	<0.01	0.0032 (J)	<0.01	0.0026 (J)	<0.01
8/27/2019	0.0039 (J)	<0.01		0.035	<0.01	0.0019 (J)	<0.01	0.0028 (J)	<0.01
8/29/2019			0.007 (J)						
10/15/2019	0.0037 (J)	<0.01	0.0069 (J)	0.028 (J)	<0.01	0.002 (J)	<0.01	0.0024 (J)	<0.01
3/3/2020	0.0033 (J)	<0.01		0.055	<0.01	0.0013 (J)	<0.01	0.0026 (J)	
3/4/2020			0.0074 (J)						<0.01
8/18/2020	0.0039 (J)	<0.01	0.0099 (J)	0.054	<0.01	0.00095 (J)	<0.01	0.0026 (J)	
8/19/2020									<0.01
9/15/2020	0.0037 (J)	<0.01	0.011 (J)	0.033	<0.01	0.001 (J)	<0.01	0.0027 (J)	<0.01
3/1/2021				0.027 (J)				0.0036 (J)	
3/2/2021	0.0045 (J)	<0.01	0.0093 (J)		<0.01	0.00081 (J)	<0.01		<0.01
9/21/2021	0.0037 (J)	<0.01				0.0012 (J)	<0.01		
9/22/2021			0.0074 (J)	0.021 (J)	<0.01			0.0035 (J)	
9/28/2021									<0.01
2/1/2022	0.0037 (J)	<0.01	0.008 (J)	0.023 (J)	<0.01	0.0011 (J)	<0.01	0.0029 (J)	
2/2/2022									<0.01
8/23/2022	0.00451 (J)	<0.01	0.00792 (J)	0.0262	<0.01	<0.01	<0.01	0.00314 (J)	<0.01
1/24/2023	0.00529 (J)	<0.01	0.00749 (J)	0.00919 (J)	<0.01	<0.01	<0.01	0.00341 (J)	
1/26/2023									<0.01

# Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			0.0117 (J)						
9/8/2016	0.0021 (J)	0.004 (J)		<0.05					
11/18/2016	<0.01								
11/21/2016		0.0039 (J)	0.0108 (J)	<0.05					
2/21/2017	<0.01								
2/22/2017		0.0043 (J)	0.0103 (J)	0.0023 (J)					
6/13/2017	0.0017 (J)								
6/14/2017		0.0036 (J)	0.0101 (J)	0.0022 (J)					
9/27/2017	0.0016 (J)	0.0038 (J)	0.0116 (J)	0.0021 (J)					
2/14/2018	0.0018 (J)	0.0034 (J)	0.0115 (J)	0.0023 (J)					
3/6/2018					0.0031 (J)	0.0399 (J)			
3/15/2018							0.038 (J)		
5/1/2018					0.0038 (J)	0.0475 (JD)	0.042 (J)		
6/27/2018	0.0016 (J)	0.0034 (J)		0.0023 (J)		0.044 (J)			
6/28/2018			0.013 (J)		0.0028 (J)		0.04 (J)		
7/31/2018					<0.25 (o)				
8/1/2018						0.039 (J)	0.036 (J)		
8/10/2018								0.0087 (J)	
8/23/2018					0.0033 (J)	0.044 (J)		0.0089 (J)	
9/19/2018					0.0033 (J)	0.043 (J)		0.005 (J)	
10/29/2018					0.003 (J)	0.039 (J)	0.041 (J)	0.0048 (J)	
11/28/2018					0.0035 (J)	0.044 (J)	0.041 (J)	0.0052 (J)	
12/18/2018		0.0032 (J)	0.014 (J)						
12/19/2018				0.0018 (J)		0.043 (J)	0.043 (J)		
12/20/2018	0.0015 (J)				0.003 (J)			0.0042 (J)	
1/16/2019							0.042 (J)		
1/17/2019								0.0039 (J)	
2/13/2019								<0.05	
8/27/2019			0.016 (J)	0.0022 (J)					
8/28/2019	0.0016 (J)	0.0033 (J)			0.0034 (J)	0.044			
8/29/2019							0.039	0.0052 (J)	
10/16/2019		0.0029 (J)				0.038	0.034	0.0023 (J)	
12/3/2019					0.0033 (J)				
12/4/2019	0.0014 (J)		0.013 (J)	0.0022 (J)					
3/4/2020	0.0014 (J)	0.0029 (J)				0.042	0.042	0.002 (J)	
3/5/2020			0.016 (J)	0.0022 (J)	0.003 (J)				
8/19/2020	0.0014 (J)	0.0029 (J)	0.018 (J)	0.002 (J)					
8/20/2020					0.0034 (J)	0.044	0.04	0.0022 (J)	
9/15/2020		0.003 (J)							
9/16/2020	0.0014 (J)		0.016 (J)	0.0022 (J)	0.0036 (J)	0.039			
9/17/2020							0.052	0.0058 (J)	
3/2/2021					0.0043 (J)	0.044			
3/3/2021	0.0012 (J)	0.0032 (J)	0.014 (J)						
3/4/2021				0.002 (J)			0.05	0.003 (J)	
3/5/2021									0.019 (J)
9/23/2021					0.0023 (J)	0.042			
9/27/2021							0.038		
9/28/2021	0.0011 (J)	0.0029 (J)	0.023 (J)	0.0021 (J)				0.0035 (J)	0.02 (J)
2/2/2022			0.021 (J)	0.0035 (J)	0.0022 (J)	0.04		0.0041 (J)	
2/3/2022		0.0026 (J)					0.038		0.024 (J)
2/4/2022	0.001 (J)								
8/23/2022						0.0474			

# Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022		0.00304 (J)	0.0238				0.0428		
8/25/2022	<0.01			0.0043 (J)	<0.01			0.0162	0.0255
1/24/2023				0.007 (J)					
1/25/2023	<0.01				0.00333 (J)		0.0542	0.0186	
1/26/2023		0.00331 (J)	0.0279			0.0506			
1/27/2023									0.0274

# Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			0.0012 (J)						
1/19/2019		0.019 (J)							
10/18/2019		0.019 (J)	<0.01						
8/20/2020		0.019 (J)	<0.01						
9/17/2020		0.021 (J)	<0.01						
3/3/2021	0.0093 (J)		<0.01						
3/4/2021		0.026 (J)							
9/27/2021		0.02 (J)	<0.01				0.0095 (J)		
9/28/2021	0.0096 (J)			0.018 (J)	0.041	0.1			
2/2/2022		0.021 (J)	<0.01				0.011 (J)		
2/3/2022	0.0096 (J)				0.041	0.098		0.19	
2/4/2022				0.026 (J)					0.007 (J)
8/24/2022	0.0042 (J)	0.0222	<0.01		0.0488	0.101	0.00913 (J)		
8/25/2022				0.0231				0.164	0.00509 (J)
1/26/2023	0.00883 (J)	0.0247			0.0553	0.114	0.0123	0.2	
1/30/2023			<0.01	0.0359					0.0066 (J)



# Time Series

Constituent: Lithium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.01 (J)					
8/25/2022	0.00617 (J)					
10/11/2022		0.0193	0.102			
10/12/2022				0.0181		
1/26/2023			0.0791			
1/30/2023	0.00661 (J)	0.0131		0.0187		
2/1/2023					0.00899 (J)	0.00392 (J)

# Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.0002	<0.0002	<0.0002	<0.0002		
9/1/2016	<0.0002	<0.0002						<0.0002	
9/6/2016			<0.0002						
9/8/2016									<0.0002
11/15/2016							<0.0002	<0.0002	
11/16/2016	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002			
11/17/2016			<0.0002						<0.0002
2/20/2017						<0.0002	8E-05 (J)	<0.0002	
2/21/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002				<0.0002
6/12/2017				4E-05 (J)		<0.0002	<0.0002	<0.0002	
6/13/2017		<0.0002	<0.0002		<0.0002				<0.0002
6/14/2017	6E-05 (J)								
9/26/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
9/27/2017									4E-05 (J)
2/13/2018				0.00021	0.00019 (J)	<0.0002	0.00013 (J)	<0.0002	
2/14/2018	5.2E-05 (J)	<0.0002	<0.0002						<0.0002
6/26/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
12/18/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/27/2019	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/29/2019			<0.0002						
8/18/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/19/2020									8.3E-05 (J)
9/15/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/1/2021				<0.0002				<0.0002	
3/2/2021	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002		<0.0002
9/21/2021	0.0001 (J)	0.0001 (J)				0.0001 (J)	0.0001 (J)		
9/22/2021			0.0001 (J)	0.0001 (J)	0.0001 (J)			0.0001 (J)	
9/28/2021									<0.0002
2/1/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
2/2/2022									<0.0002
8/23/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/24/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
1/26/2023									<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.0002						
9/8/2016	<0.0002	<0.0002		<0.0002					
11/18/2016	<0.0002								
11/21/2016		<0.0002	<0.0002	<0.0002					
2/21/2017	<0.0002								
2/22/2017		<0.0002	<0.0002	<0.0002					
6/13/2017	5E-05 (J)								
6/14/2017		7E-05 (J)	7E-05 (J)	9E-05 (J)					
9/27/2017	4.7E-05 (J)	4E-05 (J)	4E-05 (J)	0.0001 (J)					
2/14/2018	<0.0002	<0.0002	<0.0002	<0.0002					
3/6/2018					<0.0002	<0.0002			
3/15/2018							<0.0002		
5/1/2018					<0.0002	<0.0002 (D)	<0.0002		
6/27/2018	<0.0002	<0.0002		<0.0002		<0.0002			
6/28/2018			<0.0002		<0.0002		<0.0002		
7/31/2018					<0.0002				
8/1/2018						<0.0002	<0.0002		
8/10/2018								<0.0002	
8/23/2018					<0.0002	<0.0002		<0.0002	
9/19/2018					<0.0002	<0.0002		<0.0002	
10/29/2018					<0.0002	<0.0002	<0.0002	<0.0002	
11/28/2018					<0.0002	<0.0002	<0.0002	<0.0002	
12/18/2018		<0.0002	<0.0002						
12/19/2018				<0.0002		<0.0002	<0.0002		
12/20/2018	<0.0002				<0.0002			<0.0002	
1/16/2019							<0.0002		
1/17/2019								<0.0002	
2/13/2019								<0.0002	
8/27/2019			<0.0002	<0.0002					
8/28/2019	<0.0002	<0.0002			<0.0002	<0.0002			
8/29/2019							<0.0002	<0.0002	
8/19/2020	<0.0002	9.8E-05 (J)	8.2E-05 (J)	8.2E-05 (J)					
8/20/2020					<0.0002	<0.0002	<0.0002	<0.0002	
9/15/2020		<0.0002							
9/16/2020	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002			
9/17/2020							<0.0002	<0.0002	
3/2/2021					<0.0002	<0.0002			
3/3/2021	<0.0002	<0.0002	<0.0002						
3/4/2021				<0.0002			<0.0002	<0.0002	
3/5/2021									<0.0002
9/23/2021					<0.0002	<0.0002			
9/27/2021							<0.0002		
9/28/2021	<0.0002	<0.0002	<0.0002	<0.0002				<0.0002	<0.0002
2/2/2022			<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
2/3/2022		<0.0002					<0.0002		<0.0002
2/4/2022	<0.0002								
8/23/2022						<0.0002			
8/24/2022		<0.0002	<0.0002				<0.0002		
8/25/2022	<0.0002			<0.0002	<0.0002			<0.0002	<0.0002
1/24/2023				<0.0002					
1/25/2023	<0.0002				<0.0002		<0.0002	<0.0002	
1/26/2023		<0.0002	<0.0002			<0.0002			

# Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
1/27/2023									<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.0002						
1/19/2019		<0.0002							
10/18/2019		<0.0002	<0.0002						
8/20/2020		9.9E-05 (J)	<0.0002						
9/17/2020		<0.0002	<0.0002						
3/3/2021	<0.0002		<0.0002						
3/4/2021		<0.0002							
9/27/2021		<0.0002	<0.0002				<0.0002		
9/28/2021	<0.0002			<0.0002	<0.0002	<0.0002			
2/2/2022		<0.0002	<0.0002				<0.0002		
2/3/2022	<0.0002				<0.0002	<0.0002		<0.0002	
2/4/2022				<0.0002					<0.0002
8/24/2022	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002		
8/25/2022				<0.0002				<0.0002	<0.0002
1/26/2023	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	
1/30/2023			<0.0002	<0.0002					<0.0002

# Time Series

Constituent: Mercury (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.0002					
8/25/2022	<0.0002					
10/11/2022		<0.0002	8.8E-05 (J)			
10/12/2022				<0.0002		
1/26/2023			<0.0002			
1/30/2023	<0.0002	<0.0002		<0.0002		
2/1/2023					<0.0002	<0.0002

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				0.0021 (J)	<0.001	0.004 (J)	<0.001		
9/1/2016	0.002 (J)	<0.001						<0.001	
9/6/2016			0.0028 (J)						
9/8/2016									<0.01
11/15/2016							<0.001	<0.001	
11/16/2016	<0.01	<0.001		<0.01	<0.001	0.0038 (J)			
11/17/2016			<0.001						<0.01
2/20/2017						0.0055 (J)	<0.001	<0.001	
2/21/2017	<0.01	<0.001	<0.001	0.0021 (J)	<0.001				<0.01
6/12/2017				0.0021 (J)		0.005 (J)	<0.001	<0.001	
6/13/2017		<0.001	<0.001		<0.001				<0.01
6/14/2017	<0.01								
9/26/2017	<0.01	<0.001	<0.001	0.0011 (J)	<0.001	0.0053 (J)	<0.001	<0.001	
9/27/2017									<0.01
2/13/2018				0.0019 (J)	<0.001	0.008 (J)	<0.001	<0.001	
2/14/2018	<0.01	<0.001	<0.001						<0.01
6/26/2018	<0.01	<0.001	<0.001	<0.01	<0.001	0.0041 (J)	<0.001	<0.001	<0.01
12/18/2018	<0.01	<0.001	<0.001	<0.01	<0.001	0.0048 (J)	<0.001	<0.001	<0.01
8/27/2019	<0.01	<0.001		<0.01	<0.001	0.0028 (J)	<0.001	<0.001	<0.01
8/29/2019			<0.001						
10/15/2019	<0.01	<0.001	<0.001	<0.01	<0.001	0.0035 (J)	<0.001	<0.001	<0.01
3/3/2020				<0.01	<0.001	0.0023 (J)	<0.001	<0.001	
8/18/2020	<0.01	<0.001	<0.001	0.0011 (J)	<0.001	0.0015 (J)	<0.001	<0.001	
8/19/2020									0.00081 (J)
9/15/2020	<0.01	<0.001	<0.001	0.0007 (J)	<0.001	0.0015 (J)	<0.001	<0.001	0.0008 (J)
3/1/2021				<0.01				<0.001	
3/2/2021	<0.01	<0.001	<0.001		<0.001	0.0015 (J)	<0.001		0.001 (J)
9/21/2021	<0.01	<0.001				0.002 (J)	<0.001		
9/22/2021			<0.001	0.0012 (J)	<0.001			<0.001	
9/28/2021									0.00089 (J)
2/1/2022	<0.01	<0.001	<0.001	0.0013 (J)	<0.001	0.002 (J)	<0.001	<0.001	
2/2/2022									0.0011 (J)
8/23/2022	0.000413 (J)	<0.001	<0.001	0.0024	<0.001	0.00151	<0.001	<0.001	0.00105
1/24/2023	0.000388 (J)	<0.001	<0.001	0.000601 (J)	<0.001	0.00192	<0.001	<0.001	
1/26/2023									0.00092 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.01						
9/8/2016	<0.001	<0.001		<0.001					
11/18/2016	<0.001								
11/21/2016		<0.001	<0.01	<0.001					
2/21/2017	<0.001								
2/22/2017		<0.001	<0.01	<0.001					
6/13/2017	<0.001								
6/14/2017		<0.001	<0.01	<0.001					
9/27/2017	<0.001	<0.001	<0.01	<0.001					
2/14/2018	<0.001	<0.001	<0.01	<0.001					
3/6/2018					<0.01	<0.01			
3/15/2018							<0.001		
5/1/2018					<0.01	<0.01 (D)	0.0022 (J)		
6/27/2018	<0.001	<0.001		<0.001		<0.01			
6/28/2018			<0.01		<0.01		<0.001		
7/31/2018					<0.01				
8/1/2018						<0.01	0.0033 (J)		
8/10/2018								0.0032 (J)	
8/23/2018					<0.01	<0.01		0.005 (J)	
9/19/2018					<0.01	<0.01		0.0061 (J)	
10/29/2018					<0.01	<0.01	<0.001	0.0065 (J)	
11/28/2018					<0.01	<0.01	<0.001	0.0027 (J)	
12/18/2018		<0.001	<0.01						
12/19/2018				<0.001		<0.01	<0.001		
12/20/2018	<0.001				<0.01			<0.01	
1/16/2019							<0.001		
1/17/2019								<0.01	
2/13/2019								<0.01	
8/27/2019			<0.01	<0.001					
8/28/2019	<0.001	<0.001			<0.01	<0.01			
8/29/2019							<0.001	<0.01	
10/16/2019		<0.001				<0.01	<0.001	<0.01	
12/3/2019					<0.01				
12/4/2019	<0.001		<0.01	<0.001					
8/19/2020	<0.001	<0.001	0.00078 (J)	<0.001					
8/20/2020					0.00076 (J)	<0.01	<0.001	0.0012 (J)	
9/15/2020		<0.001							
9/16/2020	<0.001		0.0022 (J)	<0.001	<0.01	<0.01			
9/17/2020							<0.001	0.0007 (J)	
3/2/2021					<0.01	<0.01			
3/3/2021	<0.001	<0.001	<0.01						
3/4/2021				<0.001			<0.001	0.001 (J)	
3/5/2021									0.0017 (J)
9/23/2021					<0.01	<0.01			
9/27/2021							<0.001		
9/28/2021	<0.001	<0.001	0.001 (J)	<0.001				<0.01	0.0021 (J)
2/2/2022			0.0012 (J)	<0.001	<0.01	<0.01		<0.01	
2/3/2022		<0.001					<0.001		0.0012 (J)
2/4/2022	<0.001								
8/23/2022						0.000296 (J)			
8/24/2022		<0.001	0.00141				<0.001		
8/25/2022	<0.001			<0.001	0.000424 (J)			0.000471 (J)	0.00109



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
1/24/2023				<0.001					
1/25/2023	<0.001				0.000545 (J)		<0.001	0.000609 (J)	
1/26/2023		<0.001	0.0014			0.00027 (J)			
1/27/2023									0.000817 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.001						
1/19/2019		<0.01							
10/18/2019		<0.01	<0.001						
8/20/2020		<0.01	<0.001						
9/17/2020		<0.01	<0.001						
3/3/2021	0.0068 (J)		<0.001						
3/4/2021		<0.01							
9/27/2021		<0.01	<0.001				<0.001		
9/28/2021	0.0029 (J)			<0.001	<0.001	<0.001			
2/2/2022		<0.01	<0.001				<0.001		
2/3/2022	0.0017 (J)				<0.001	<0.001		<0.001	
2/4/2022				<0.001					0.00092 (J)
8/24/2022	0.00171	0.000313 (J)	<0.001		<0.001	<0.001	<0.001		
8/25/2022				<0.001				<0.001	0.000741 (J)
1/26/2023	0.00085 (J)	0.000283 (J)			<0.001	<0.001	<0.001	<0.001	
1/30/2023			<0.001	<0.001					0.000803 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	0.0011 (J)					
8/25/2022	0.000286 (J)					
10/11/2022		0.000918 (J)	<0.001			
10/12/2022				0.000432 (J)		
1/26/2023			<0.001			
1/30/2023	0.000247 (J)	0.000675 (J)		0.000201 (J)		
2/1/2023					0.0111	<0.001



# Time Series

Constituent: pH, Field (S.U.) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			6.23						
9/8/2016	5.51	4.62		5.89					
11/18/2016	5.53								
11/21/2016		4.44	6.23	5.56					
2/21/2017	5.63								
2/22/2017		4.42	6.16	5.87					
6/13/2017	5.57								
6/14/2017		4.45	6.16	5.83					
9/27/2017	5.53	4.33	6.16	5.87					
2/14/2018	5.83	4.42	6.24	6.01					
3/15/2018					5.26		5.26		
5/1/2018					6.14	5.85	5.38		
6/27/2018	5.53	4.37		5.83		5.87			
6/28/2018			6.21		5.88		5.03		
7/31/2018					6.07				
8/1/2018						5.79	5.22		
8/10/2018								6.28	
8/23/2018								6.75	
9/19/2018					5.9	5.71		6.48	
10/29/2018					5.93	5.76	5.19	6.77	
11/28/2018					5.99	5.74	5.28	6.44	
12/18/2018		4.38	6.18						
12/19/2018				5.79		5.8	5.15		
12/20/2018	5.78				6.04			6.75	
1/16/2019							5.14		
1/17/2019								6.41	
2/13/2019								6.42	
3/6/2019							6.15		
3/19/2019	5.75					5.89			
3/20/2019		4.4	6.24	5.88	6.1		5.32	6.59	
8/27/2019			6.17	5.85					
8/28/2019	5.51	4.39			5.86	5.74			
8/29/2019							5.2	6.27	
10/16/2019		4.79				5.9	5.36	7	
10/17/2019	6.01 (D)		6.43	6.09	5.93				
3/4/2020	5.8	4.5				5.76	5.2	6.54	
3/5/2020			5.99	5.74	5.95				
5/12/2020				5.88					
8/19/2020	5.81	4.67	6.36	5.97					
8/20/2020					5.86	5.75	5.26	6.85	
9/15/2020		4.53							
9/16/2020	5.81		6.29	5.79	5.27	5.76			
9/17/2020							4.41	6.12	
10/27/2020									6.47
3/2/2021					6.17	5.59			
3/3/2021	5.9	4.46	6.29						
3/4/2021				5.98			4.34	5.87	
3/5/2021									7.06
9/23/2021					5.95	5.74			
9/27/2021							5.05		
9/28/2021	5.82	4.23	6.33	5.82				6.81	6.23
2/2/2022			6.34	5.99	5.92	5.75		6.35	



# Time Series

Constituent: pH, Field (S.U.) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
8/2/2018			6.18						
8/3/2018		5.47							
1/18/2019			6.19						
1/19/2019		5.45							
10/18/2019		5.79	6.44						
8/20/2020		5.57	6.15						
9/17/2020		4.93	5.77						
10/27/2020	6.79	5.49							
3/3/2021	7.1		5.41						
3/4/2021		4.57							
9/27/2021		5.34	6.04				5.02		
9/28/2021	7.18			5.37	4	4.77			
2/2/2022		5.44	6.19				5.25		
2/3/2022	6.77				3.9	4.73		3.71	
2/4/2022				5.28					5.89
8/24/2022	7.15	5.49	6.12		3.81	4.55	5.14		
8/25/2022				5.91				3.72	5.65
1/26/2023	7.2	5.44			3.93	4.6	5.16	3.78	
1/30/2023			6.18	5.39					5.66

# Time Series

Constituent: pH, Field (S.U.) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	5.79					
8/25/2022	5.5					
10/11/2022		5.81	4.16			
10/12/2022				5.53		
1/26/2023			4.06			
1/30/2023	5.38	5.64		5.33		
2/1/2023					7.28	6.18



# Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.005	<0.005	<0.005	<0.005		
9/1/2016	<0.005	<0.005						<0.005	
9/6/2016			<0.005						
9/8/2016									<0.005
11/15/2016							<0.005	<0.005	
11/16/2016	<0.005	<0.005		<0.005	<0.005	<0.005			
11/17/2016			0.0052 (J)						<0.005
2/20/2017						<0.005	<0.005	<0.005	
2/21/2017	<0.005	<0.005	0.0018 (J)	<0.005	<0.005				<0.005
6/12/2017				<0.005		<0.005	<0.005	<0.005	
6/13/2017		<0.005	<0.005		<0.005				<0.005
6/14/2017	<0.005								
9/26/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
9/27/2017									<0.005
2/13/2018				<0.005	<0.005	<0.005	<0.005	<0.005	
2/14/2018	<0.005	<0.005	<0.005						<0.005
6/26/2018	<0.005	<0.005	0.0036 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/18/2018	<0.005	<0.005	0.0044 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/27/2019	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/29/2019			0.0023 (J)						
10/15/2019	<0.005	<0.005	0.0022 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/3/2020	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	
3/4/2020			0.0019 (J)						<0.005
8/18/2020	<0.005	<0.005	0.0033 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
8/19/2020									<0.005
9/15/2020	<0.005	<0.005	0.0028 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/1/2021				<0.005				<0.005	
3/2/2021	<0.005	<0.005	0.006		<0.005	<0.005	<0.005		0.0021 (J)
9/21/2021	<0.005	<0.005				<0.005	<0.005		
9/22/2021			0.0016 (J)	<0.005	<0.005			<0.005	
9/28/2021									<0.005
2/1/2022	<0.005	<0.005	0.002 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
2/2/2022									<0.005
8/23/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
1/26/2023									<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.005						
9/8/2016	0.0043 (J)	0.0039 (J)		<0.01					
11/18/2016	0.0047 (J)								
11/21/2016		0.0058 (J)	<0.005	<0.01					
2/21/2017	0.0025 (J)								
2/22/2017		0.005 (J)	<0.005	0.0017 (J)					
6/13/2017	0.0036 (J)								
6/14/2017		0.0074 (J)	0.0045 (J)	<0.01					
9/27/2017	0.004 (J)	0.0068 (J)	0.0034 (J)	0.0019 (J)					
2/14/2018	<0.005	<0.005	<0.005	<0.01					
3/6/2018					<0.005	<0.005			
3/15/2018							<0.005		
5/1/2018					<0.005	<0.005 (D)	<0.005		
6/27/2018	0.0014 (J)	<0.005		0.0017 (J)		<0.005			
6/28/2018			<0.005		<0.005		<0.005		
7/31/2018					<0.005				
8/1/2018						0.0015 (J)	0.0031 (J)		
8/10/2018								<0.005	
8/23/2018					<0.005	<0.005 (X)		<0.005	
9/19/2018					<0.005	0.002 (J)		<0.005	
10/29/2018					<0.005	<0.005	0.002 (J)	<0.005	
11/28/2018					<0.005	<0.005	0.0017 (J)	<0.005	
12/18/2018		<0.005	<0.005						
12/19/2018				0.0059 (J)		<0.005	<0.005		
12/20/2018	<0.005				<0.005			<0.005	
1/16/2019							<0.005		
1/17/2019								<0.005	
2/13/2019								<0.005	
8/27/2019			0.0038 (J)	0.057					
8/28/2019	0.0017 (J)	<0.005			<0.005	<0.005			
8/29/2019							<0.005	<0.005	
10/16/2019		<0.005				0.0017 (J)	0.002 (J)	<0.005	
12/3/2019					0.0029 (J)				
12/4/2019	0.0036 (J)		0.0018 (J)	0.1					
3/4/2020	0.0022 (J)	0.0018 (J)				<0.005	0.0026 (J)	<0.005	
3/5/2020			<0.005	0.1	<0.005				
5/12/2020				0.0989					
8/19/2020	<0.005	<0.005	<0.005	0.099					
8/20/2020					<0.005	0.0016 (J)	0.0037 (J)	<0.005	
9/15/2020		<0.005							
9/16/2020	0.0042 (J)		<0.005	0.12	<0.005	0.002 (J)			
9/17/2020							<0.005	<0.005	
3/2/2021					<0.005	0.0028 (J)			
3/3/2021	0.0031 (J)	0.0042 (J)	<0.005						
3/4/2021				0.14			0.0039 (J)	<0.005	
3/5/2021									<0.005
9/23/2021					<0.005	<0.005			
9/27/2021							0.0022 (J)		
9/28/2021	<0.005	0.0022 (J)	<0.005	0.13				<0.005	<0.005
2/2/2022			<0.005	0.21	<0.005	<0.005		<0.005	
2/3/2022		<0.005					<0.005		<0.005
2/4/2022	<0.005								

# Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/23/2022						<0.005			
8/24/2022		<0.005	<0.005				0.00176 (J)		
8/25/2022	<0.005			0.218	<0.005			<0.005	<0.005
1/24/2023				0.198					
1/25/2023	<0.005				<0.005		0.00189 (J)	<0.005	
1/26/2023		<0.005	<0.005			<0.005			
1/27/2023									<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.005						
1/19/2019		<0.005							
10/18/2019		<0.005	<0.005						
8/20/2020		<0.005	<0.005						
9/17/2020		<0.005	<0.005						
3/3/2021	<0.005		<0.005						
3/4/2021		<0.005							
9/27/2021		<0.005	<0.005				0.0079		
9/28/2021	<0.005			<0.005	0.0034 (J)	0.0049 (J)			
2/2/2022		<0.005	<0.005				0.0031 (J)		
2/3/2022	<0.005				0.0016 (J)	0.0026 (J)		0.09	
2/4/2022				<0.005					<0.005
8/24/2022	<0.005	<0.005	<0.005		0.00348 (J)	0.00417 (J)	0.0051		
8/25/2022				<0.005				0.113	<0.005
1/26/2023	<0.005	<0.005			0.00265 (J)	0.0031 (J)	0.00321 (J)	0.104	
1/30/2023			<0.005	<0.005					<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.005					
8/25/2022	<0.005					
10/11/2022		0.00393 (J)	0.0377			
10/12/2022				0.0171		
1/26/2023			0.0212			
1/30/2023	<0.005	0.00817		0.0292		
2/1/2023					<0.005	0.196

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				7.5	0.38 (J)	2.7	0.81 (J)		
9/1/2016	2.7	1.7						0.6 (J)	
9/6/2016			38						
9/8/2016									280
11/15/2016							<1 (J)	0.68 (J)	
11/16/2016	3.6	1.2		6.6	<1 (J)	3.4			
11/17/2016			84						200
2/20/2017						3.9 (B-01)	1 (B-01)	0.98 (J)	
2/21/2017	3	1.1	39	6.1	1.5				360
6/12/2017				5		3.7	0.94 (J)	0.54 (J)	
6/13/2017		1.1	35		0.67 (J)				290
6/14/2017	2.6								
9/26/2017	2.5	1.3	89	5.4	0.62 (J)	4.1	0.92 (J)	0.53 (J)	
9/27/2017									310
2/13/2018				4.7 (J)	<1	6.6	<1	<1	
2/14/2018	2.1 (J)	<1	82.2						260
6/26/2018	2	0.84 (J)	84.2	6.2	0.69 (J)	3.5	0.91 (J)	0.54 (J)	231
7/31/2018	1.9	0.63 (J)							
12/18/2018	2.1	0.66 (J)	83.4	5.9	0.72 (J)	4.3	0.68 (J)	0.39 (J)	231
3/19/2019	2.2	0.75 (J)	65	6 (D)	0.78 (J)	3	0.74 (J)	0.68 (J)	
3/20/2019									235 (D)
10/15/2019	1.9	0.61 (J)	30	5.2	0.47 (J)	3.8	0.68 (J)	0.48 (J)	174
3/3/2020	1.8	0.51 (J)		7.1	0.93 (J)	2.8	0.71 (J)	2.5	
3/4/2020			38.6						165
9/15/2020	1.7	<1	41.5	5.9	<1	1.7	<1	<1	126
3/1/2021				4.7				0.74 (J)	
3/2/2021	1.7	0.51 (J)	54		<1	2.2	<1		139
9/21/2021	1.7	0.51 (J)				2.3	<1		
9/22/2021			34.6	5.2	<1			<1	
9/28/2021									112
2/1/2022	1.4	<1	36.8	5.4	<1	2	<1	<1	
2/2/2022									117
8/23/2022	1.84	0.636	24.4	5.66	0.452	2.21	0.521	0.479	158
1/24/2023	1.8	0.628	19.7	3.58	0.465	3.34	0.66	0.484	
1/26/2023									182

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			310						
9/8/2016	300	460		370					
11/18/2016	320								
11/21/2016		500	300	420					
2/21/2017	270								
2/22/2017		570	280	380					
6/13/2017	230								
6/14/2017		440	290	400					
9/27/2017	260	380	260	400					
2/14/2018	232	280	250	383					
3/6/2018					111	1560			
3/15/2018							1590		
5/1/2018					112	1465 (D)	1550		
6/27/2018	205	281		372		1450			
6/28/2018			276		109		1530		
7/31/2018					107				
8/1/2018						1560	1580		
8/10/2018								183	
8/23/2018					108	1470		145	
9/19/2018					117	1500		178	
10/29/2018					127	1720	1750	157	
11/28/2018					133	1730	1780	189	
12/18/2018		293	440						
12/19/2018				370		1520	1650		
12/20/2018	200				113			150	
1/16/2019							589 (O)		
1/17/2019								157	
2/13/2019								169	
3/19/2019	199					1100			
3/20/2019		278	623	409	127		1740	186.5 (D)	
10/16/2019		266				1560	1590	155	
12/3/2019					105				
12/4/2019	241		327	293					
3/4/2020	205	238				1380	1370	129	
3/5/2020			369	269	106				
9/15/2020		241							
9/16/2020	190		334	255	103	1360			
9/17/2020							1330	165	
10/27/2020									492
3/2/2021					98.3	1360			
3/3/2021	172	341	371						
3/4/2021				185			1250	114	
3/5/2021									698
9/23/2021					97.5	1240			
9/27/2021							1180		
9/28/2021	137	250	612	189				132	866
2/2/2022			580	210	90.1	1170		126	
2/3/2022		274					1270		903
2/4/2022	172								
8/23/2022						1410			
8/24/2022		298	935				1400		
8/25/2022	176			254	114			142	1060





# Time Series

Constituent: Sulfate (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
8/2/2018			8.9						
8/3/2018		1170							
1/18/2019			0.64 (J)						
1/19/2019		1140							
10/18/2019		<1	0.76 (J)						
9/17/2020		1030	0.53 (J)						
10/27/2020	357	893							
3/3/2021	360		0.66 (J)						
3/4/2021		909							
9/27/2021		933	<1				1420		
9/28/2021	294			259	628	1670			
2/2/2022		889	<1				1230		
2/3/2022	339				767	2020		2600	
2/4/2022				336					195
8/24/2022	377	1240	0.872		840	1770	1800		
8/25/2022				294				2900	234
1/26/2023	370	1150			1070	1970	1490	4000	
1/30/2023			0.733	618					280

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	451					
8/25/2022	571					
10/11/2022		1770	2520			
10/12/2022				2440		
1/26/2023			3160			
1/30/2023	647	2060		2800		
2/1/2023					258	275

# Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				<0.002	<0.002	<0.002	<0.002		
9/1/2016	<0.002	<0.002						<0.002	
9/6/2016			<0.002						
9/8/2016									<0.002
11/15/2016							<0.002	<0.002	
11/16/2016	<0.002	<0.002		<0.002	<0.002	<0.002			
11/17/2016			<0.002						<0.002
2/20/2017						<0.002	<0.002	<0.002	
2/21/2017	<0.002	<0.002	<0.002	<0.002	<0.002				<0.002
6/12/2017				<0.002		<0.002	<0.002	<0.002	
6/13/2017		<0.002	<0.002		<0.002				<0.002
6/14/2017	<0.002								
9/26/2017	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
9/27/2017									<0.002
2/13/2018				<0.002	<0.002	<0.002	<0.002	<0.002	
2/14/2018	<0.002	<0.002	<0.002						<0.002
6/26/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/18/2018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/27/2019	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/29/2019			<0.002						
10/15/2019	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/3/2020	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	
3/4/2020			<0.002						<0.002
8/18/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
8/19/2020									<0.002
9/15/2020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/1/2021				<0.002				<0.002	
3/2/2021	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002		<0.002
9/21/2021	<0.002	<0.002				<0.002	<0.002		
9/22/2021			<0.002	<0.002	<0.002			<0.002	
9/28/2021									<0.002
2/1/2022	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
2/2/2022									<0.002
8/23/2022	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/24/2023	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
1/26/2023									<0.002

# Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			<0.002						
9/8/2016	<0.002	<0.002		<0.002					
11/18/2016	<0.002								
11/21/2016		0.0002 (J)	<0.002	<0.002					
2/21/2017	<0.002								
2/22/2017		0.0002 (J)	<0.002	<0.002					
6/13/2017	<0.002								
6/14/2017		0.0002 (J)	<0.002	<0.002					
9/27/2017	<0.002	0.0002 (J)	<0.002	<0.002					
2/14/2018	<0.002	0.00018 (J)	<0.002	<0.002					
3/6/2018					<0.002	<0.002			
3/15/2018							<0.002		
5/1/2018					<0.002	<0.002 (D)	<0.002		
6/27/2018	<0.002	0.00017 (J)		<0.002		<0.002			
6/28/2018			<0.002		<0.002		<0.002		
7/31/2018					<0.002				
8/1/2018						<0.002	<0.002		
8/10/2018								<0.002	
8/23/2018					<0.002	<0.002		<0.002	
9/19/2018					<0.002	<0.002		<0.002	
10/29/2018					<0.002	<0.002	<0.002	<0.002	
11/28/2018					<0.002	<0.002	<0.002	<0.002	
12/18/2018		0.00017 (J)	<0.002						
12/19/2018				<0.002		<0.002	<0.002		
12/20/2018	<0.002				<0.002			<0.002	
1/16/2019							<0.002		
1/17/2019								<0.002	
2/13/2019								<0.002	
8/27/2019			<0.002	<0.002					
8/28/2019	<0.002	0.00017 (J)			<0.002	<0.002			
8/29/2019							<0.002	<0.002	
10/16/2019		0.00017 (J)				<0.002	<0.002	<0.002	
12/3/2019					<0.002				
12/4/2019	<0.002		<0.002	<0.002					
3/4/2020	<0.002	0.00016 (J)				<0.002	<0.002	<0.002	
3/5/2020			<0.002	<0.002	<0.002				
8/19/2020	<0.002	0.00016 (J)	<0.002	<0.002					
8/20/2020					<0.002	<0.002	<0.002	<0.002	
9/15/2020		0.00016 (J)							
9/16/2020	<0.002		<0.002	<0.002	<0.002	<0.002			
9/17/2020							<0.002	<0.002	
3/2/2021					<0.002	<0.002			
3/3/2021	<0.002	0.00018 (J)	<0.002						
3/4/2021				<0.002			<0.002	<0.002	
3/5/2021									<0.002
9/23/2021					<0.002	<0.002			
9/27/2021							<0.002		
9/28/2021	<0.002	<0.002	<0.002	<0.002				<0.002	<0.002
2/2/2022			<0.002	<0.002	<0.002	<0.002		<0.002	
2/3/2022		<0.002					<0.002		<0.002
2/4/2022	<0.002								
8/23/2022						<0.002			

# Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022		<0.002	<0.002				<0.002		
8/25/2022	<0.002			<0.002	<0.002			<0.002	<0.002
1/24/2023				<0.002					
1/25/2023	<0.002				<0.002		<0.002	<0.002	
1/26/2023		<0.002	<0.002			<0.002			
1/27/2023									<0.002

# Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
1/18/2019			<0.002						
1/19/2019		<0.002							
10/18/2019		<0.002	<0.002						
8/20/2020		<0.002	<0.002						
9/17/2020		<0.002	<0.002						
3/3/2021	<0.002		<0.002						
3/4/2021		<0.002							
9/27/2021		<0.002	<0.002				<0.002		
9/28/2021	<0.002			<0.002	<0.002	<0.002			
2/2/2022		<0.002	<0.002				<0.002		
2/3/2022	<0.002				<0.002	<0.002		<0.01	
2/4/2022				<0.002					<0.002
8/24/2022	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002		
8/25/2022				<0.002				<0.01	<0.002
1/26/2023	<0.002	<0.002			<0.002	<0.002	<0.002	<0.01	
1/30/2023			<0.002	<0.002					<0.002

# Time Series

Constituent: Thallium (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	<0.002					
8/25/2022	<0.002					
10/11/2022		<0.002	0.00139 (J)			
10/12/2022				<0.002		
1/26/2023			0.000773 (J)			
1/30/2023	<0.002	<0.002		<0.002		
2/1/2023					<0.002	<0.002

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-23S (bg)	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-25I
8/31/2016				151	88	138	154		
9/1/2016	142	69						299	
9/6/2016			146						
9/8/2016									460
11/15/2016							123	41	
11/16/2016	100	100		69	41	77			
11/17/2016			211						611
2/20/2017						170	158	133	
2/21/2017	71	37	151	68	<25				497
6/12/2017				161		132	142	61	
6/13/2017		84	130		53				474
6/14/2017	140								
9/26/2017	149	68	160	167	45	108	138	29	
9/27/2017									457
2/13/2018				165	63	141	150	61	
2/14/2018	137	138	194						431
6/26/2018	142	90	221	188	71	133	154	71	414
7/31/2018	133	83							
12/18/2018	135	85	208	145 (X)	78 (X)	138 (X)	147	70 (X)	401
3/19/2019	132 (JX)	82 (JX)	161 (JX)	146.5 (D)	68	130	146	72	
3/20/2019									410.5 (D)
10/15/2019	134	89	124	140	66	175	144	63	380
3/3/2020	115	72		155	41	<10	130	54	
3/4/2020			118						330
9/15/2020	95	60	109	116	69	100	116	79	272
3/1/2021				98				39	
3/2/2021	93	43	105		43	80	96		280
9/21/2021	117	56				108	104		
9/22/2021			128	129	66			62	
9/28/2021									270
2/1/2022	114	63	130	126	72	129	124	61	
2/2/2022									283
8/23/2022	104	55	103	117	45	107	101	52	315
1/24/2023	114	59	102	93	63	124	104	64	
1/26/2023									339



# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			505						
9/8/2016	478	654		607					
11/18/2016	503								
11/21/2016		819	515	695					
2/21/2017	380								
2/22/2017		721	504	635					
6/13/2017	354								
6/14/2017		661	536	635					
9/27/2017	376	518	432	601					
2/14/2018	503 (JX)	487	448	628					
3/6/2018					346	2200			
3/15/2018							2440		
5/1/2018					374	2080 (D)	2190		
6/27/2018	458 (X)	648 (X)		2280		31 (OX)			
6/28/2018			494		333		2290		
7/31/2018					393				
8/1/2018						2190	2360		
8/10/2018								344	
8/23/2018					350	2160		333	
9/19/2018					353	2160		364	
10/29/2018					329	2130	2300	334	
11/28/2018					358	2320	2300	357	
12/18/2018		407	715						
12/19/2018				605		2060	2190		
12/20/2018	344				322			355	
1/16/2019							2270		
1/17/2019								347	
2/13/2019								350	
3/19/2019	334 (JX)					2050 (JX)			
3/20/2019		391	885	564	302		2280	360 (D)	
10/16/2019		2030				2220	2280	346	
12/3/2019					362				
12/4/2019	422		612	526					
3/4/2020	326	391				2140	2270	351	
3/5/2020			681	489	297				
9/15/2020		281							
9/16/2020	301		634	428	275	2090			
9/17/2020							1910	329	
10/27/2020									914
3/2/2021					264	1680			
3/3/2021	288	515	690						
3/4/2021				350			1520	383	
3/5/2021									1210
9/23/2021					277	1770			
9/27/2021							1800		
9/28/2021	262	457	1050	375				336	1470
2/2/2022			1110	443	276	1850		160	
2/3/2022		419					1850		1380
2/4/2022	301								
8/23/2022						2060			
8/24/2022		383	1540				1990		
8/25/2022	311			437	248			296	1750



# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I	PZ-59I	PZ-63I
8/2/2018			123						
8/3/2018		1900							
1/18/2019			103						
1/19/2019		1660							
10/18/2019		1550	99						
9/17/2020		1600	101						
10/27/2020	680	1200							
3/3/2021	598		76						
3/4/2021		830							
9/27/2021		1560	88				2100		
9/28/2021	650			542	1120	2600			
2/2/2022		1590	98				1970		
2/3/2022	686				1170	2480		3610	
2/4/2022				630					403
8/24/2022	715	1740	90		1380	2830	2400		
8/25/2022				554				4370	419
1/26/2023	693	1750			1440	2880	2280	4330	
1/30/2023			70	898					448

# Time Series

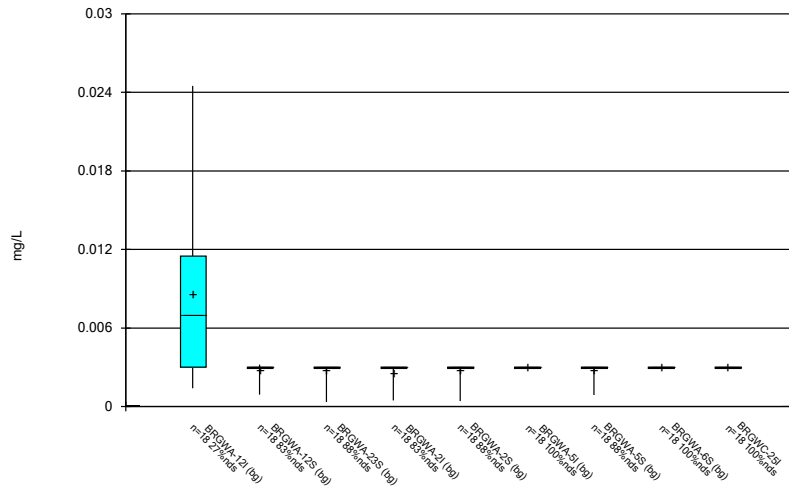
Constituent: Total Dissolved Solids (mg/L) Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-62I	PZ-66I	PZ-65I	PZ-64I	PZ-68D	PZ-69I
2/4/2022	818					
8/25/2022	918					
10/11/2022		2800	3790			
10/12/2022				3780		
1/26/2023			3770			
1/30/2023	1020	2890		4260		
2/1/2023					525	441

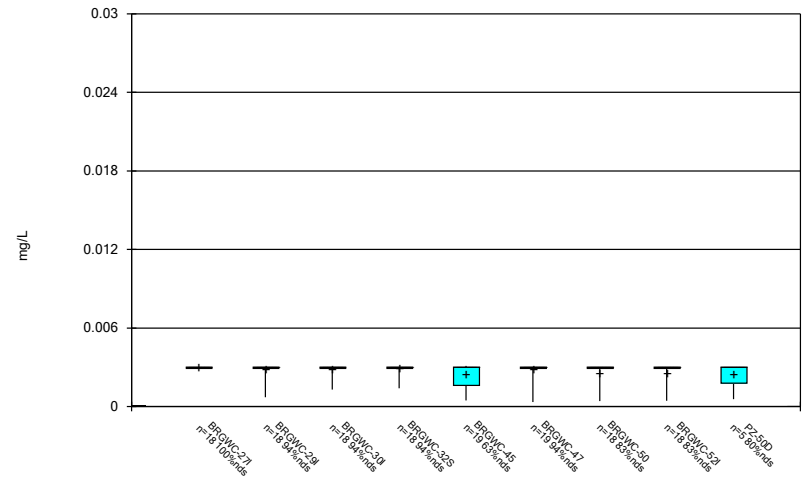
FIGURE B.

### Box & Whiskers Plot



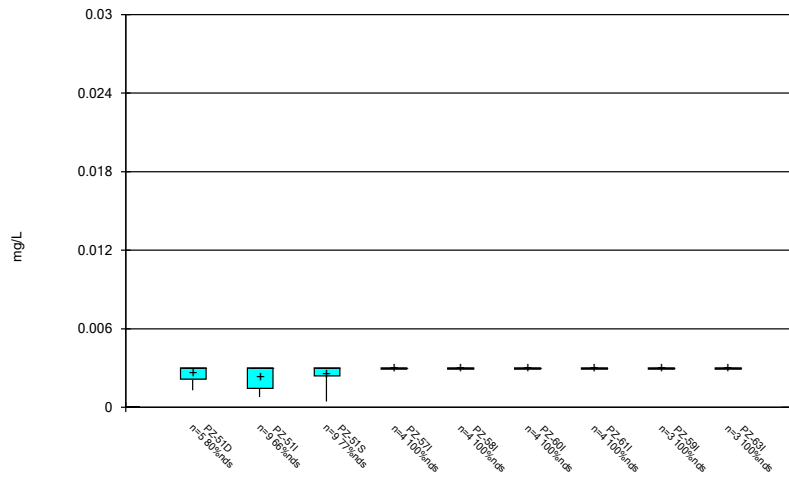
Constituent: Antimony Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



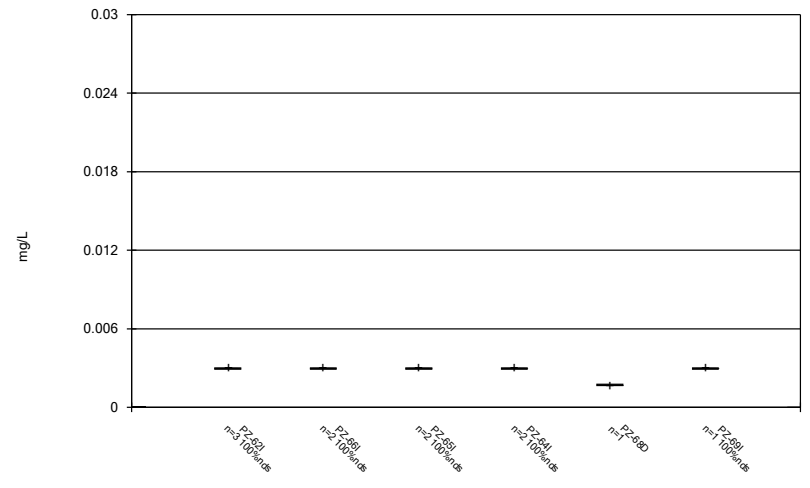
Constituent: Antimony Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



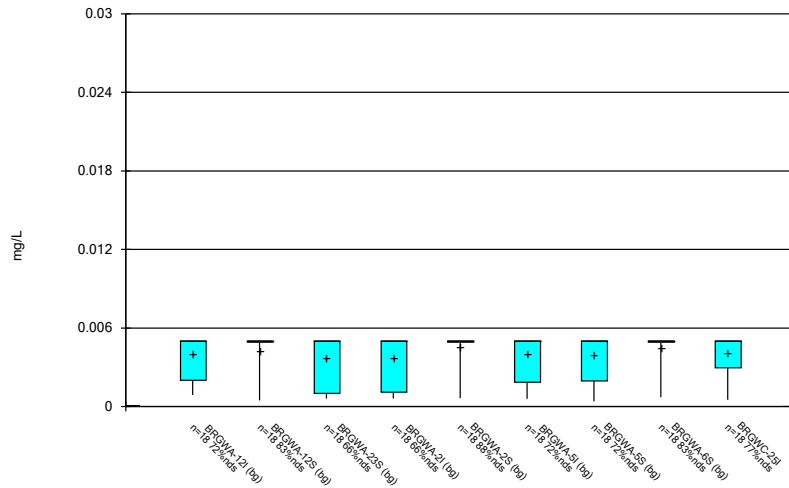
Constituent: Antimony Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



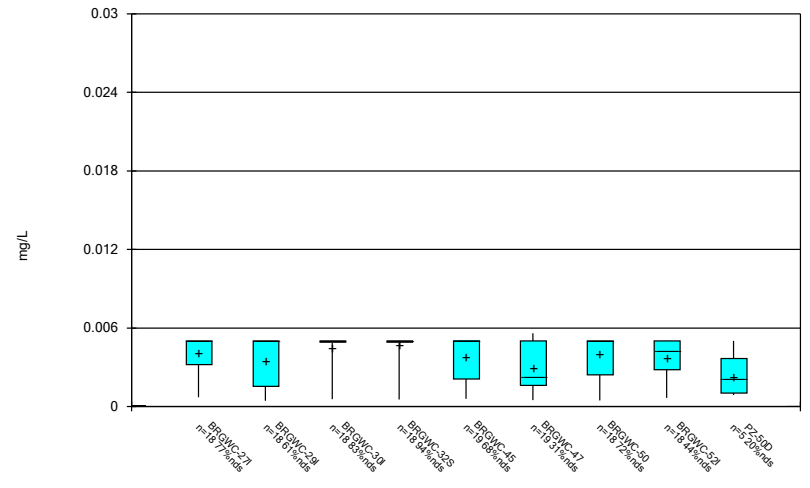
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



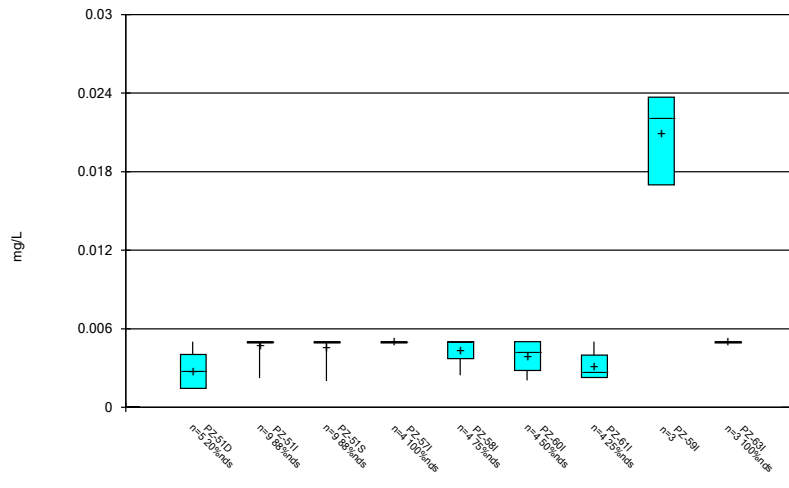
Constituent: Arsenic Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



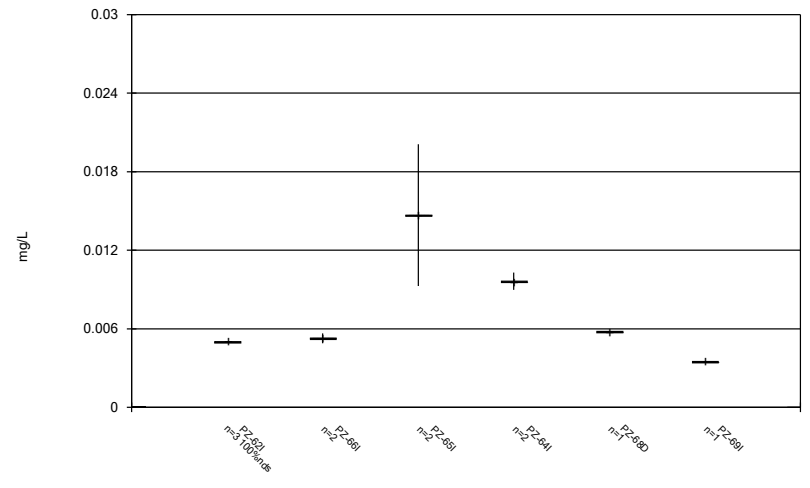
Constituent: Arsenic Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



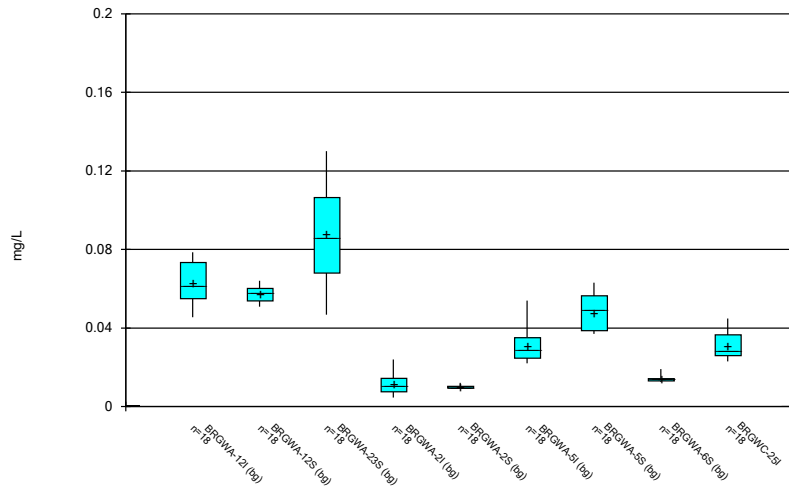
Constituent: Arsenic Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



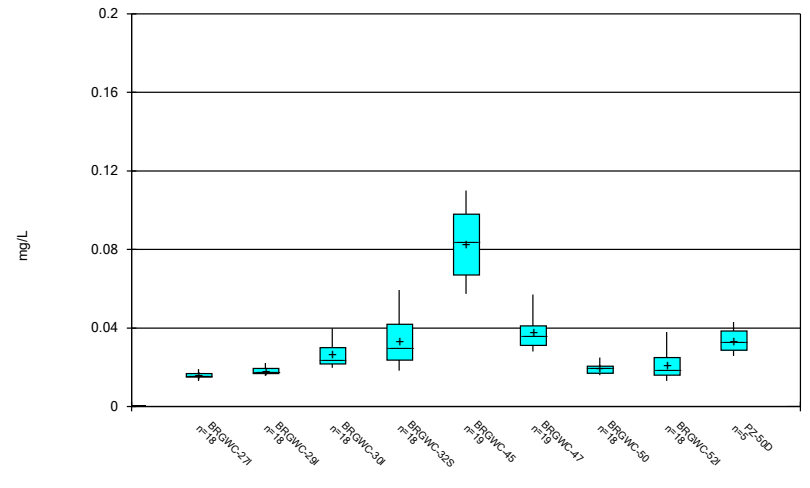
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



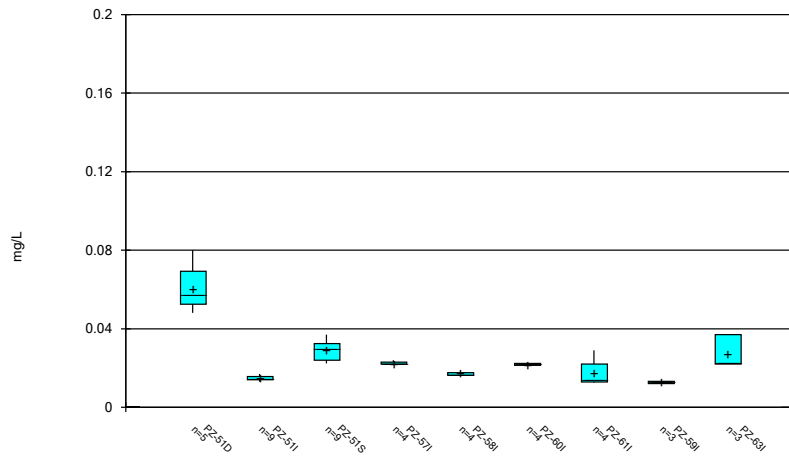
Constituent: Barium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



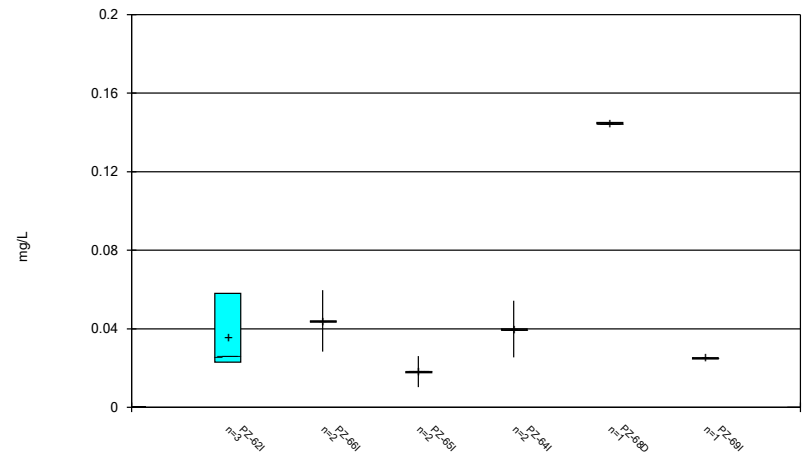
Constituent: Barium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Barium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

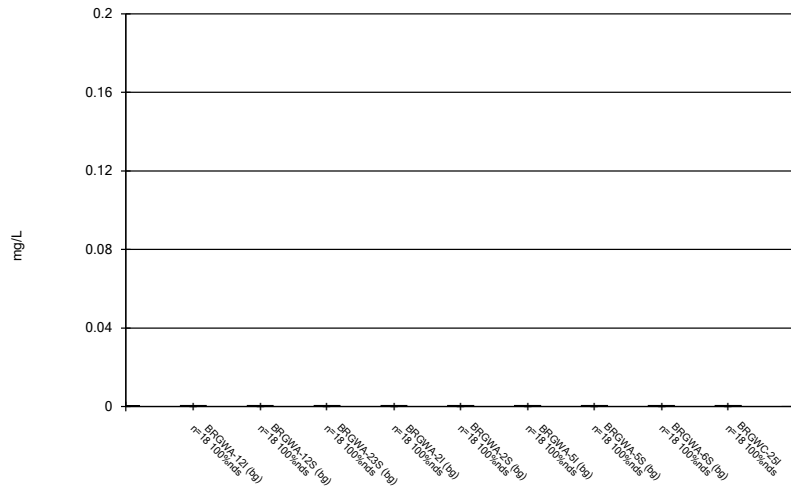
### Box & Whiskers Plot



Constituent: Barium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

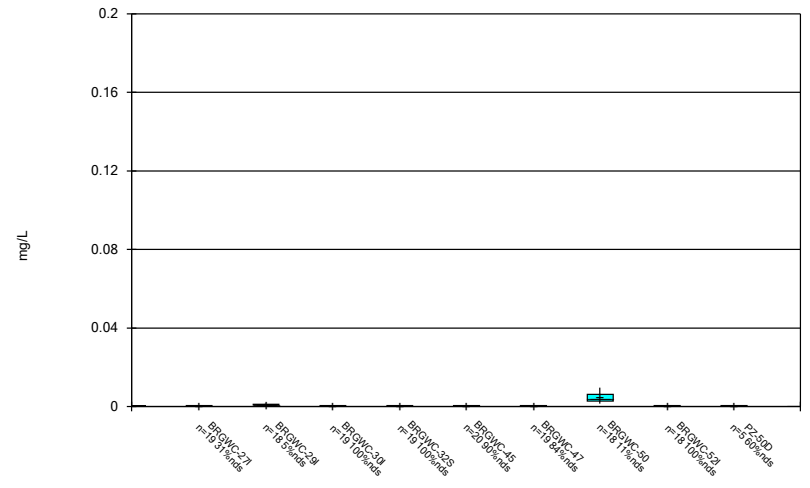


Box & Whiskers Plot



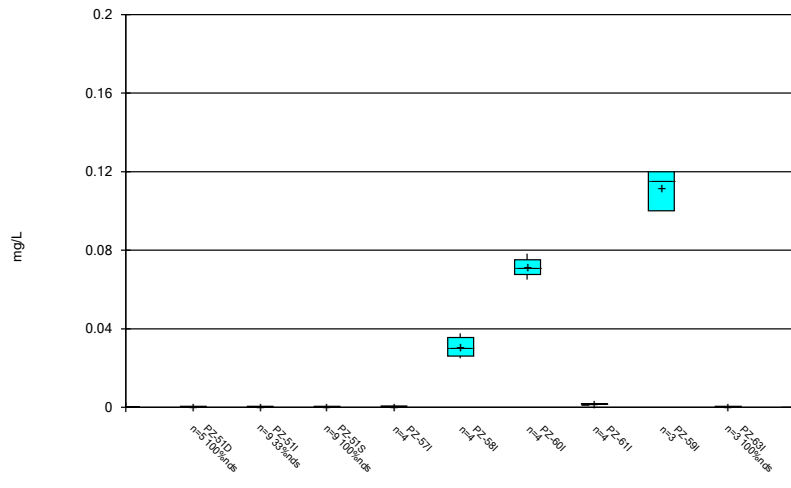
Constituent: Beryllium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



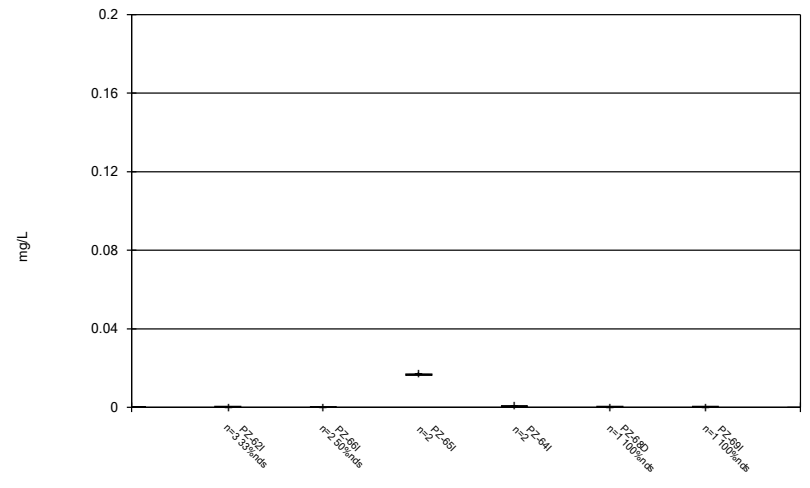
Constituent: Beryllium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



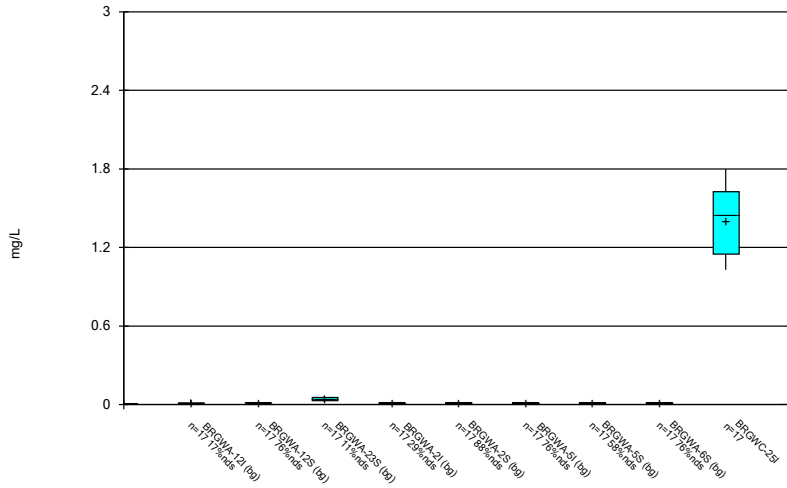
Constituent: Beryllium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



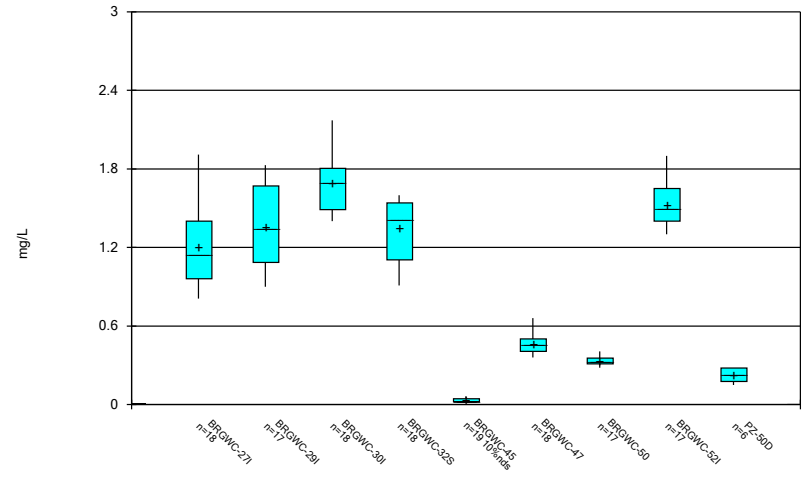
Constituent: Beryllium Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



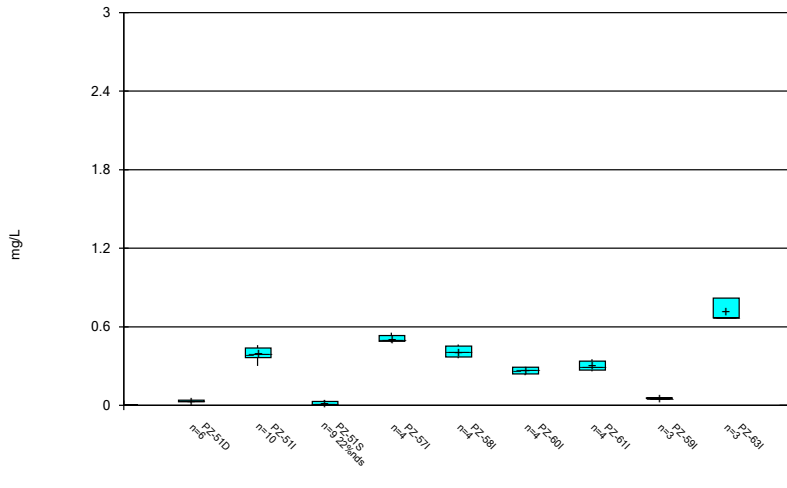
Constituent: Boron Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



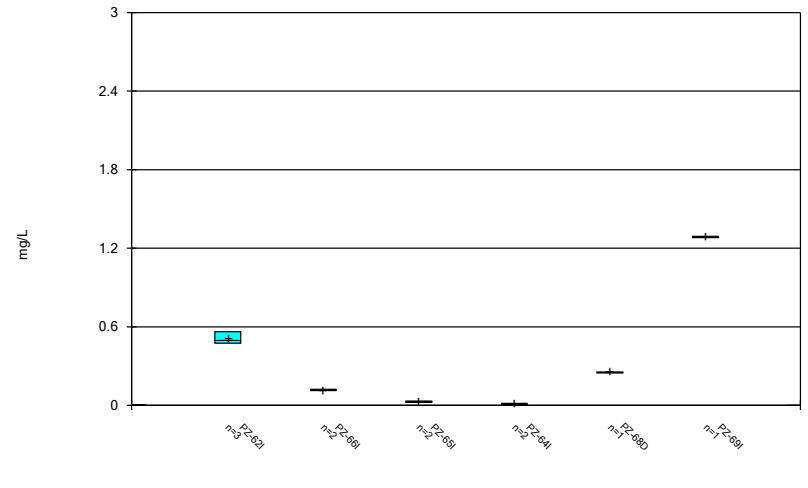
Constituent: Boron Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



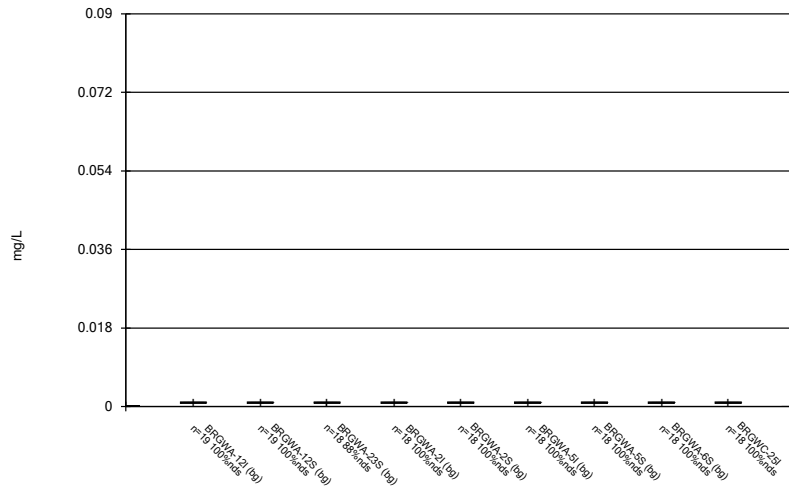
Constituent: Boron Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



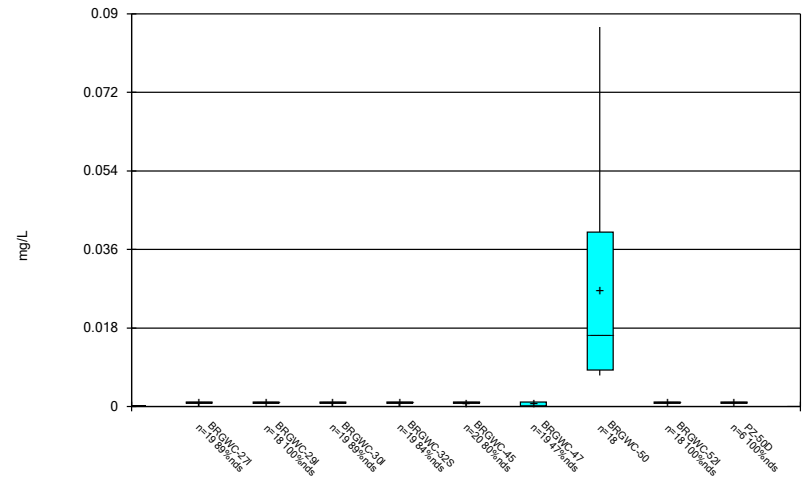
Constituent: Boron Analysis Run 3/20/2023 1:32 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



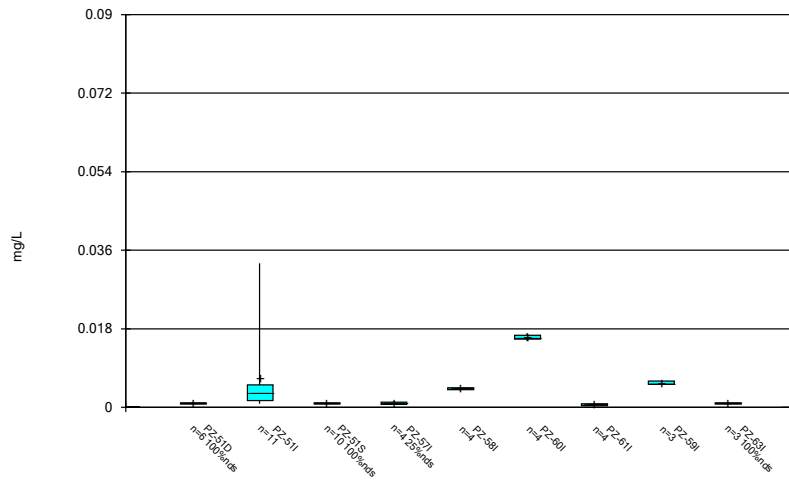
Constituent: Cadmium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



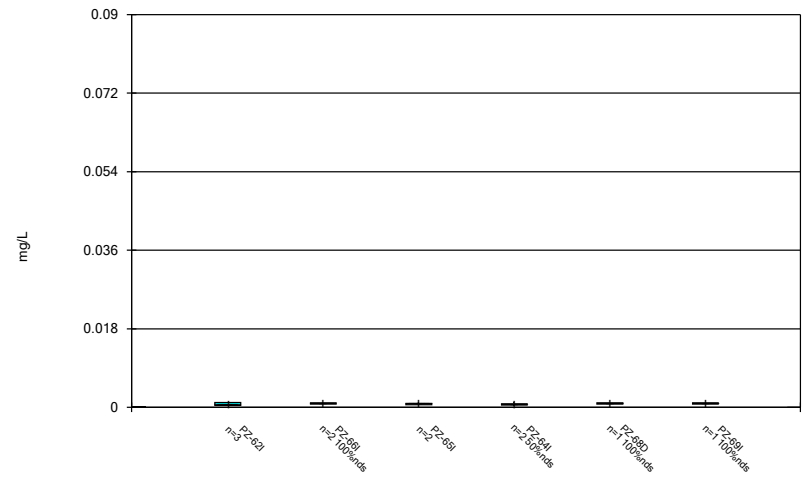
Constituent: Cadmium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



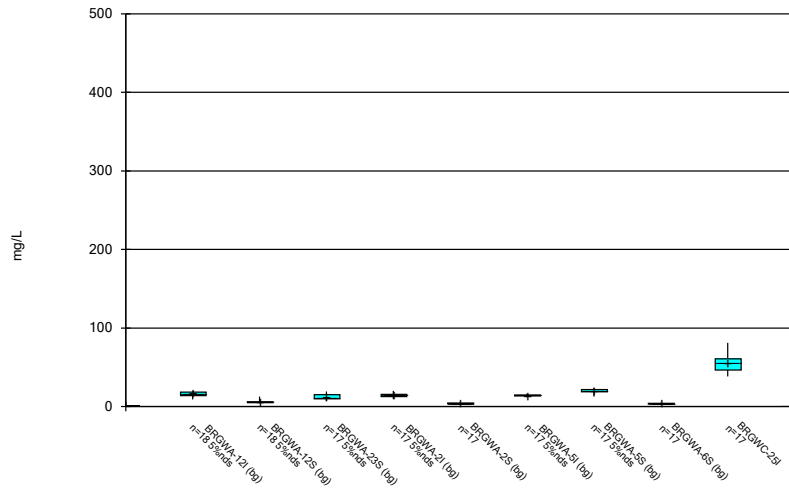
Constituent: Cadmium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



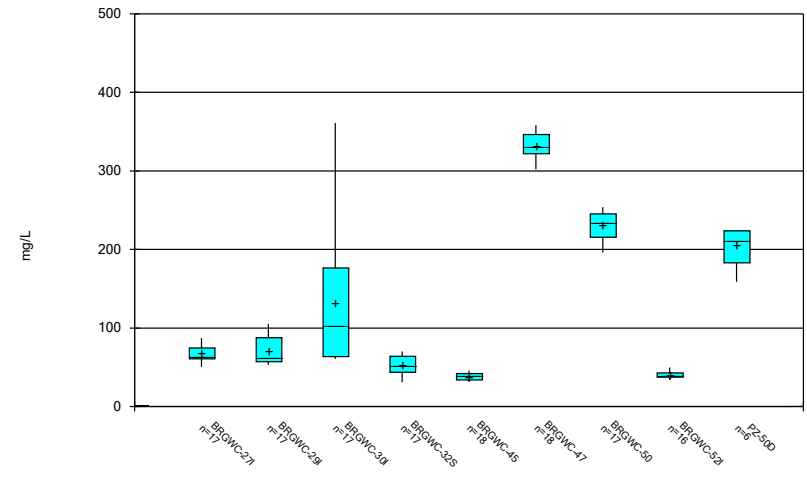
Constituent: Cadmium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



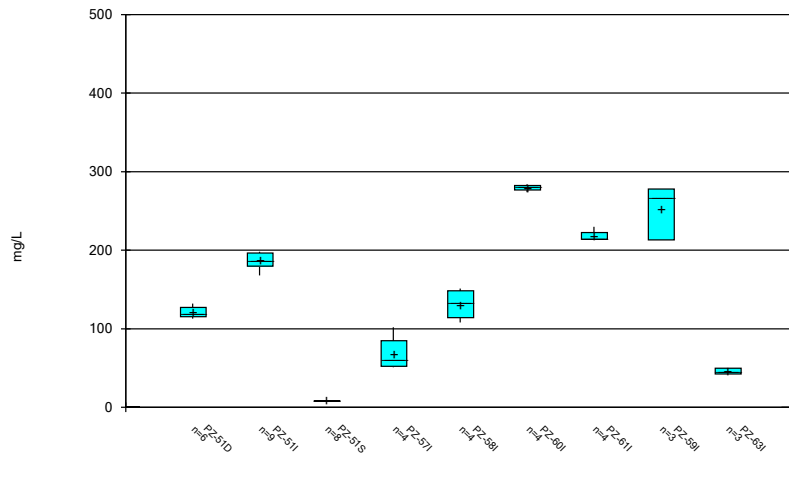
Constituent: Calcium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



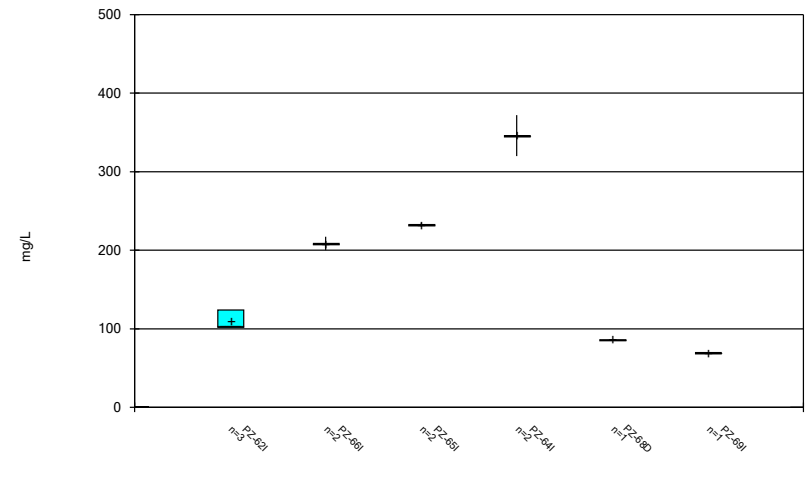
Constituent: Calcium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



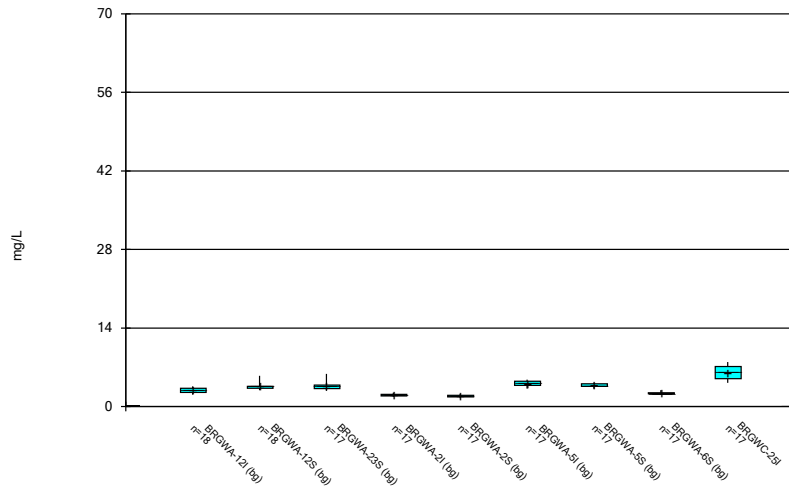
Constituent: Calcium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



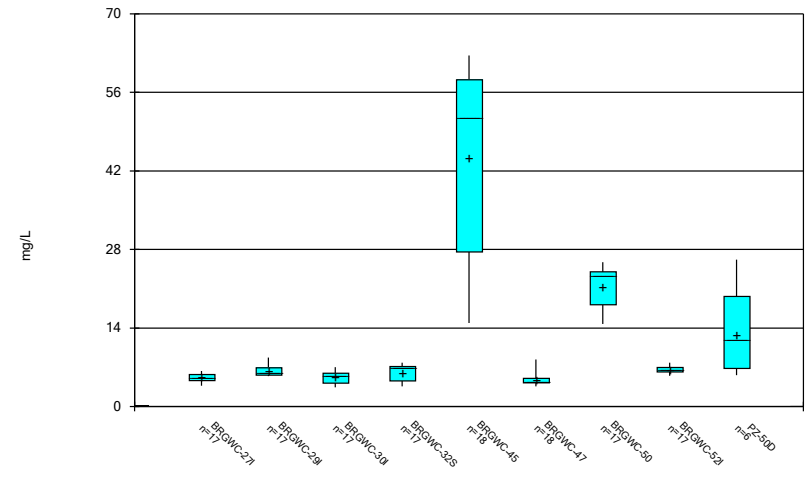
Constituent: Calcium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



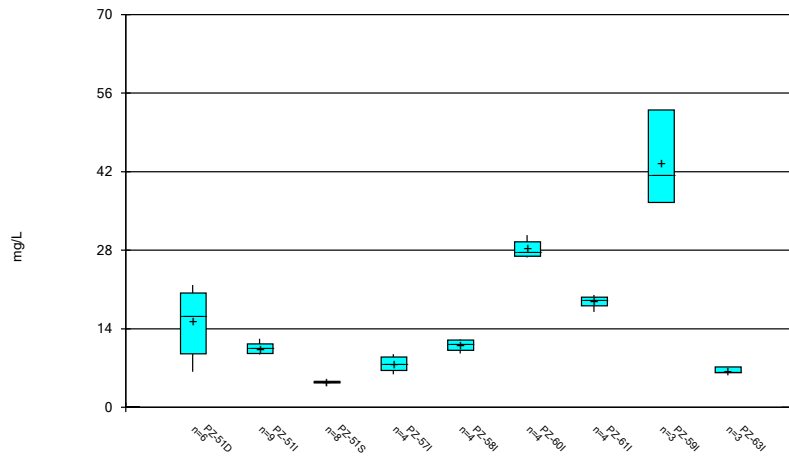
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



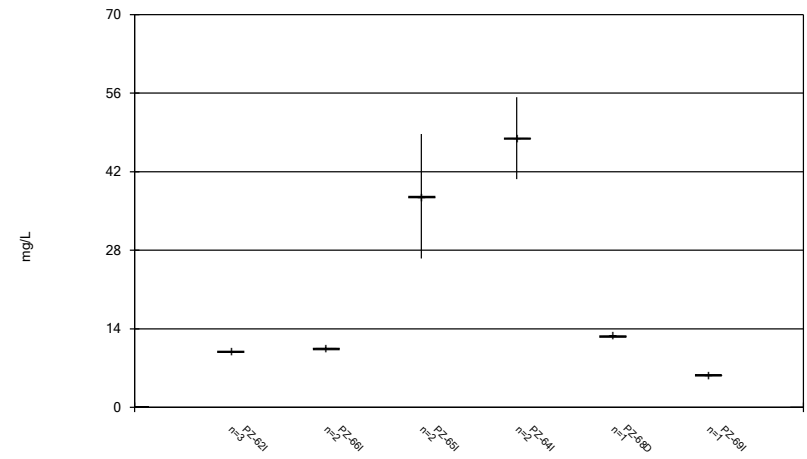
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



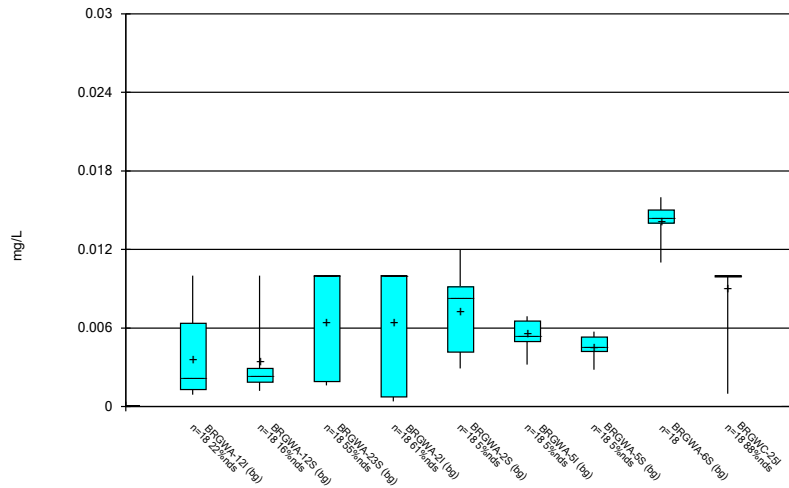
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



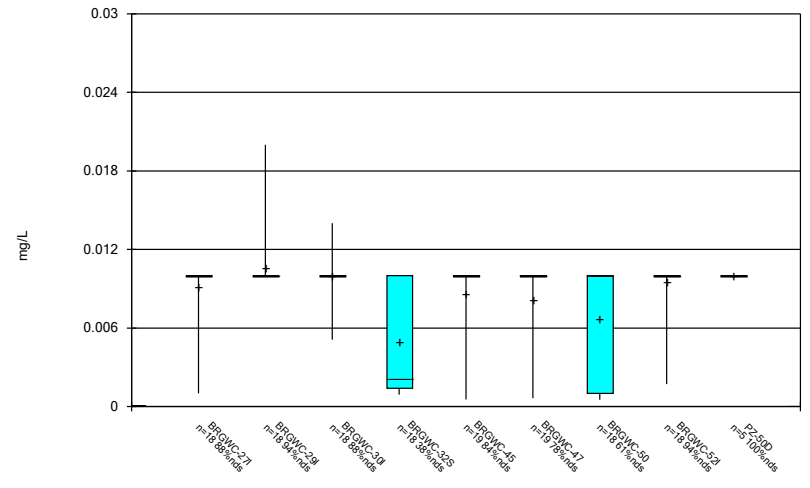
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



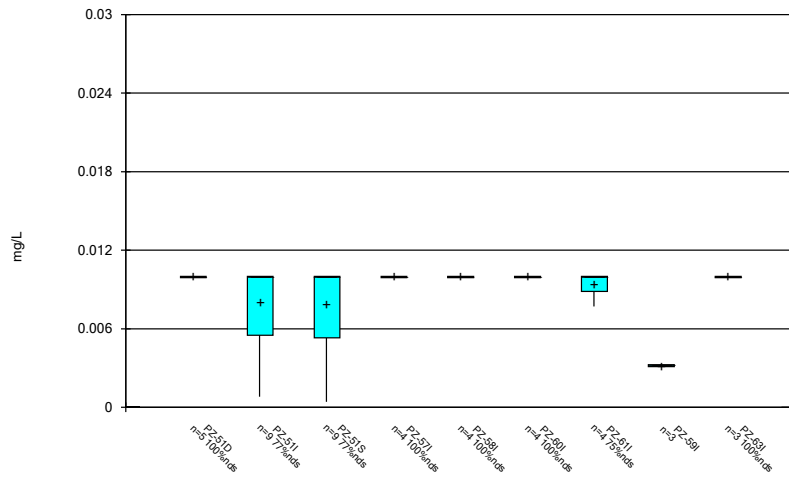
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



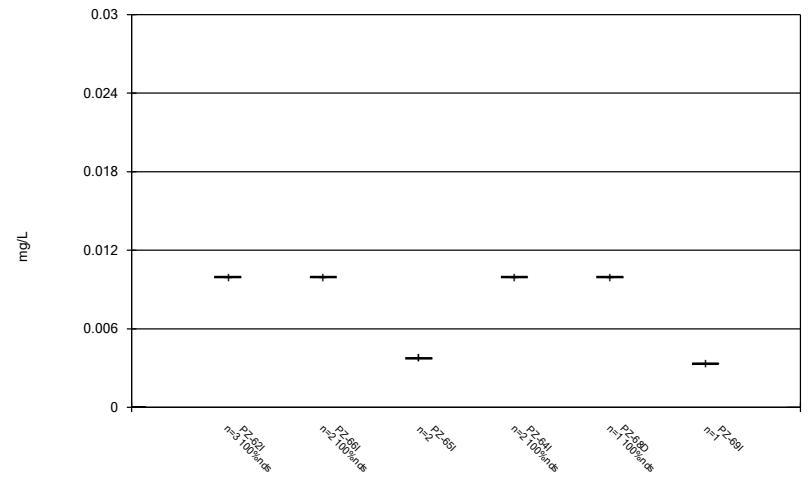
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



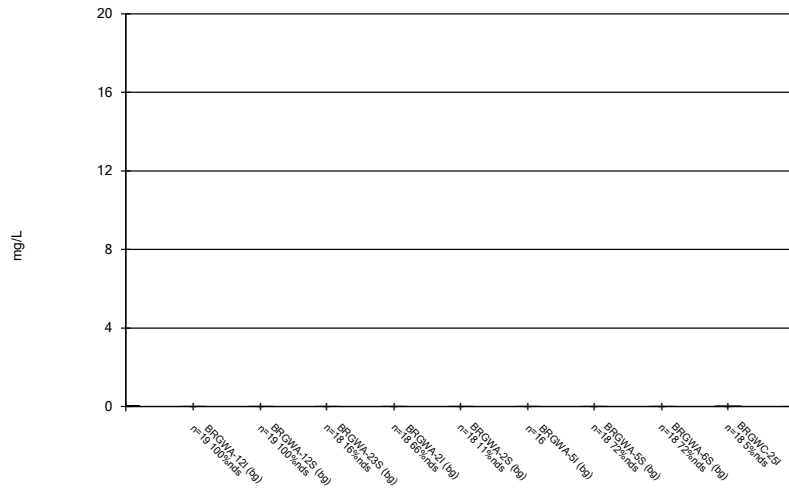
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Box & Whiskers Plot



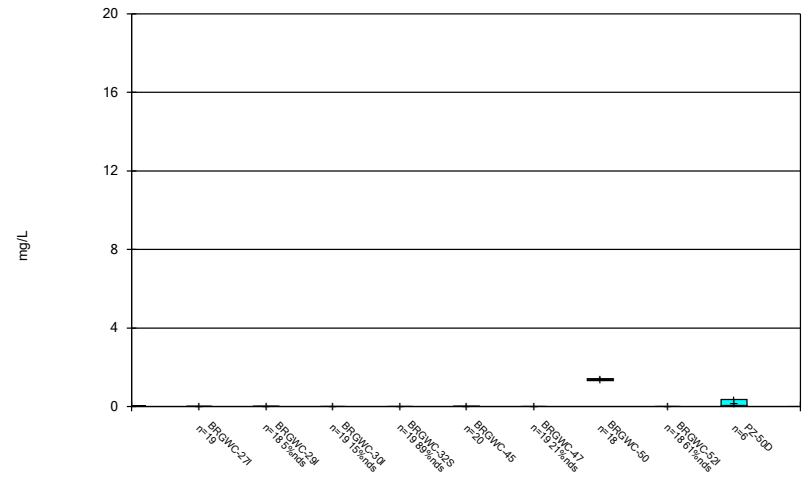
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Box & Whiskers Plot



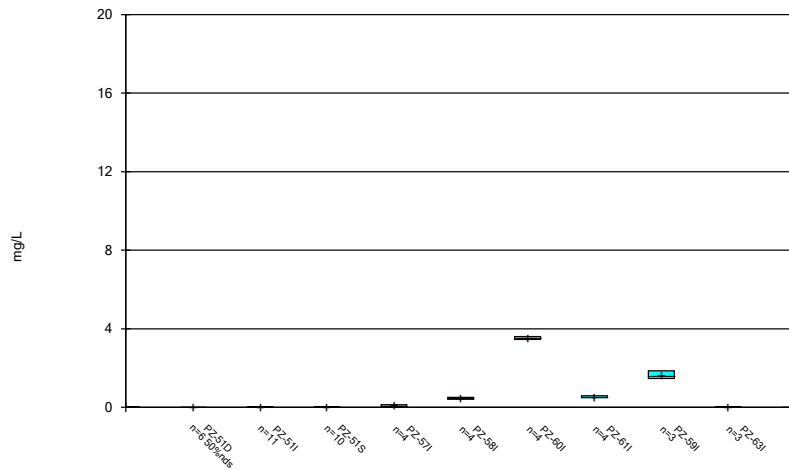
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



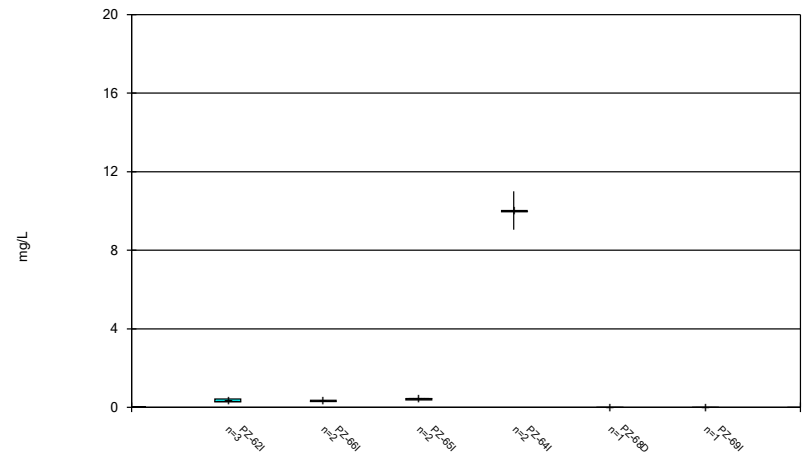
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



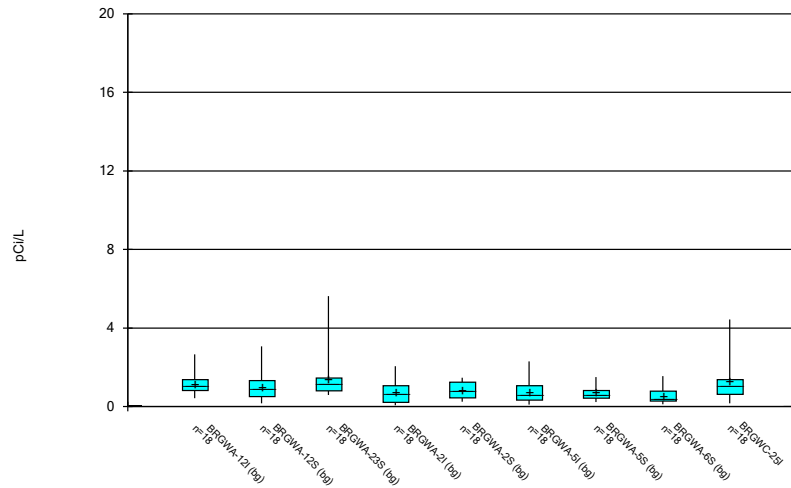
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



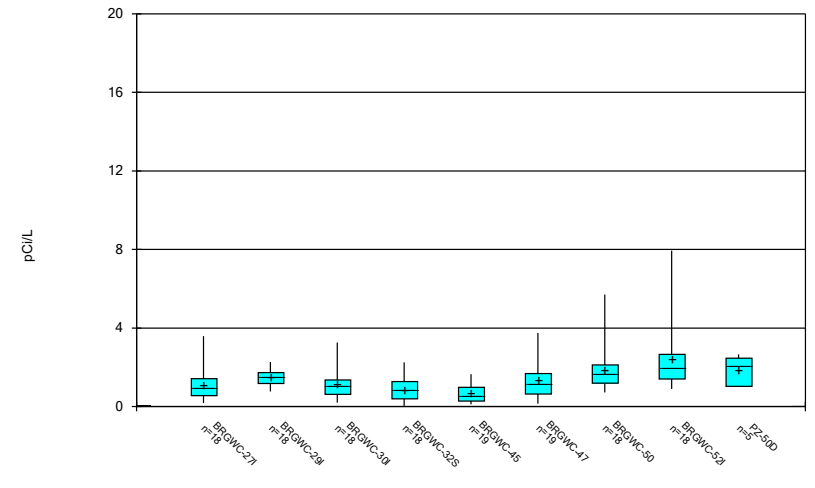
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



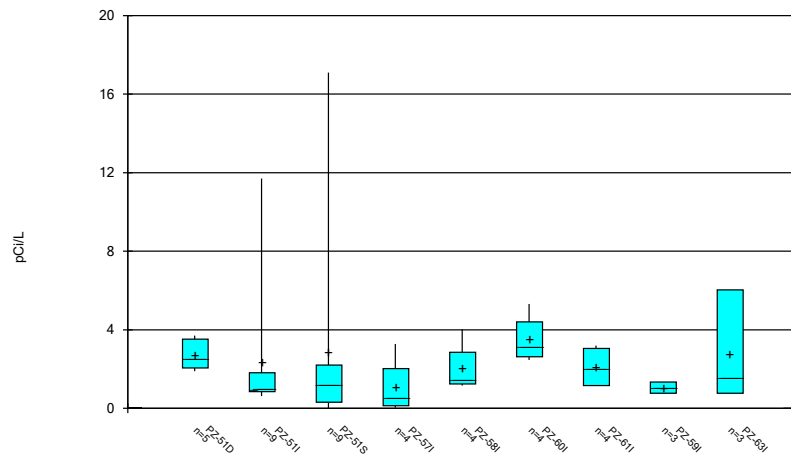
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



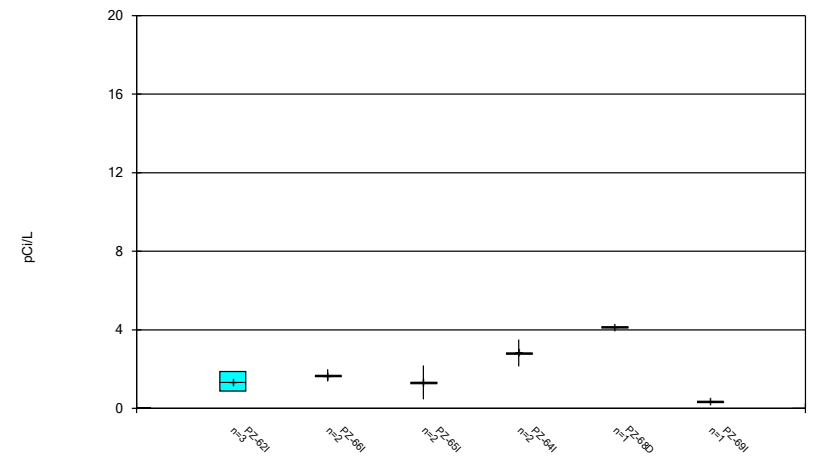
Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

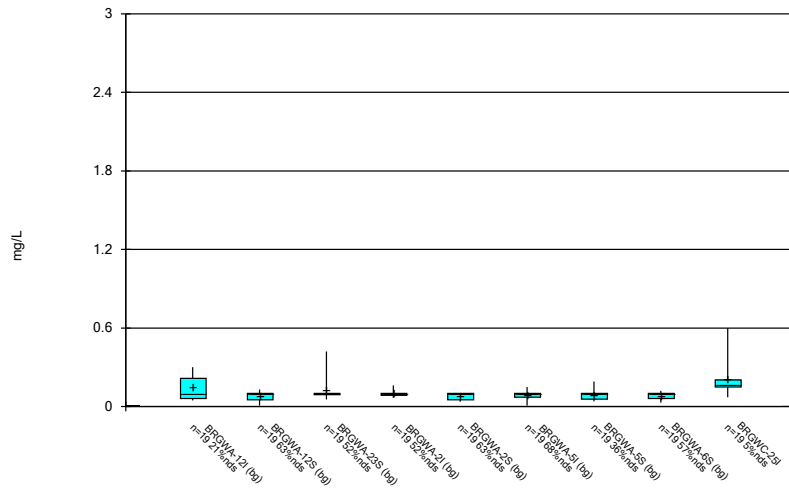
### Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

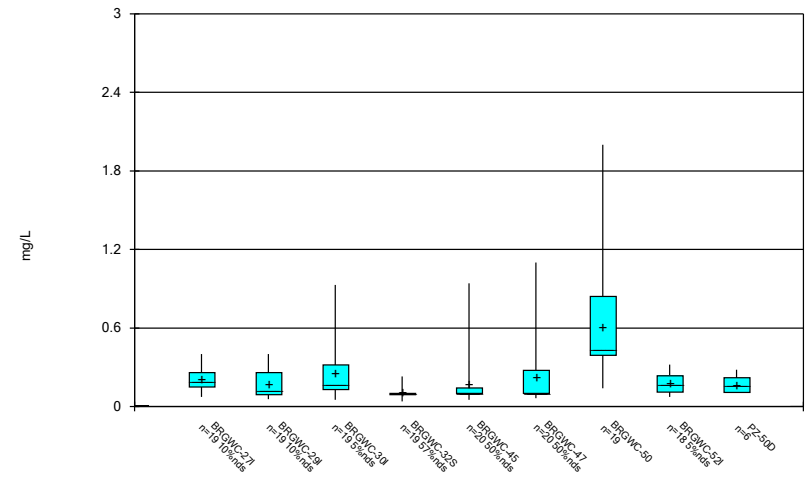


### Box & Whiskers Plot



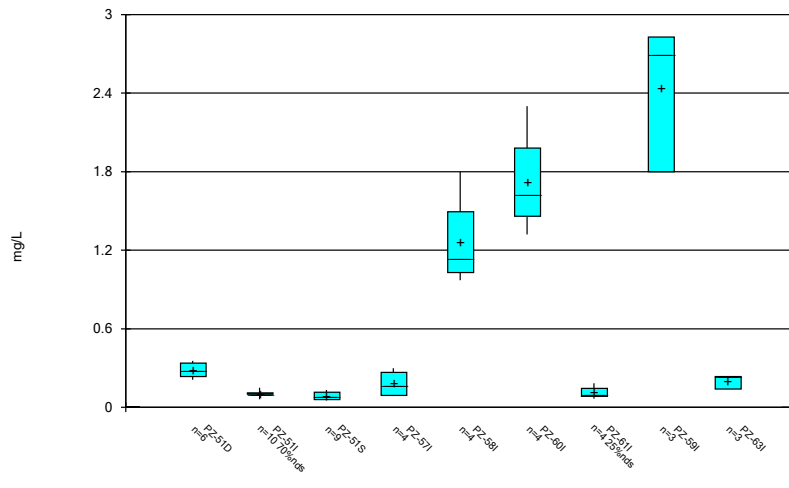
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



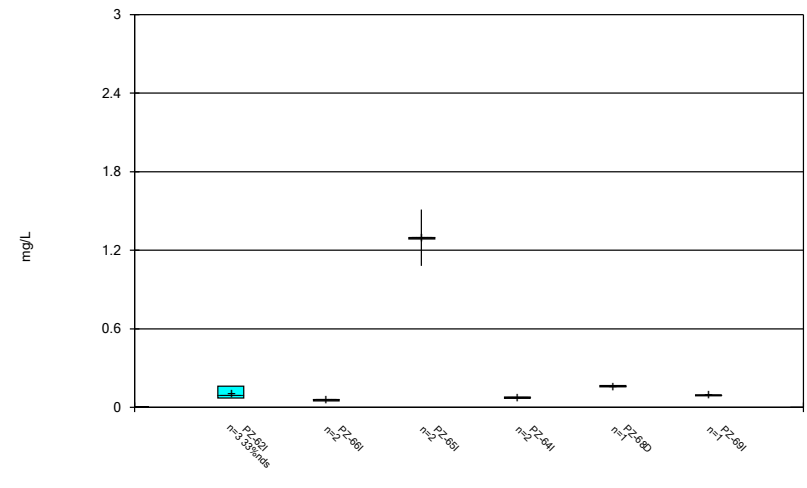
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



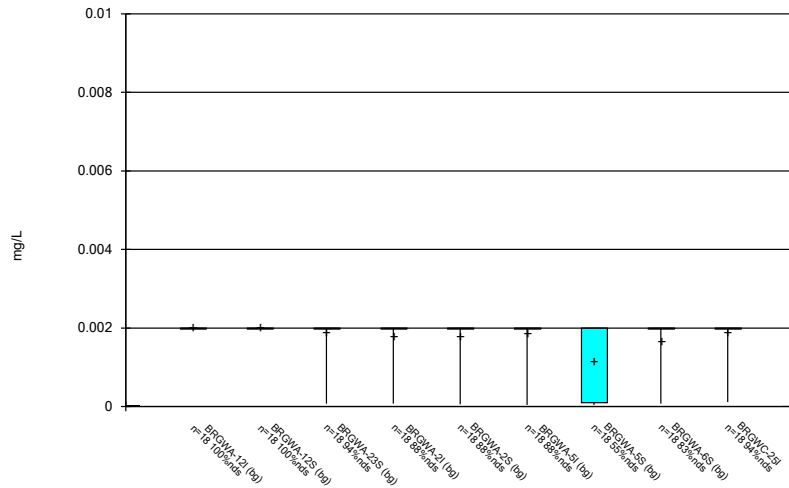
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



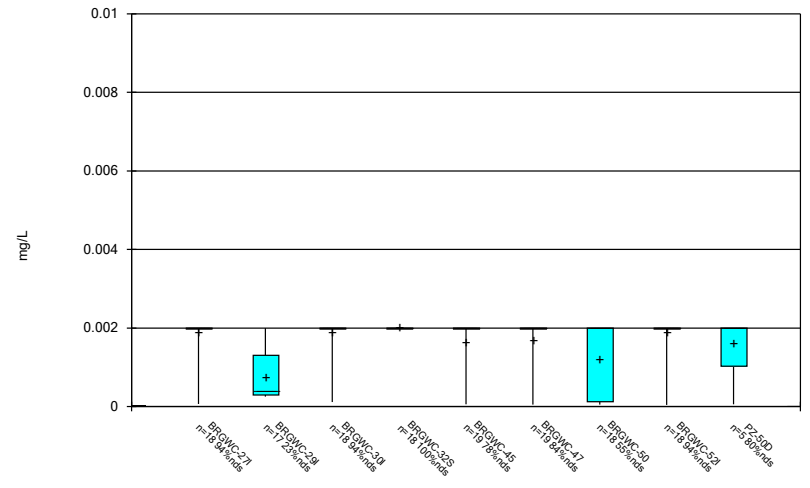
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



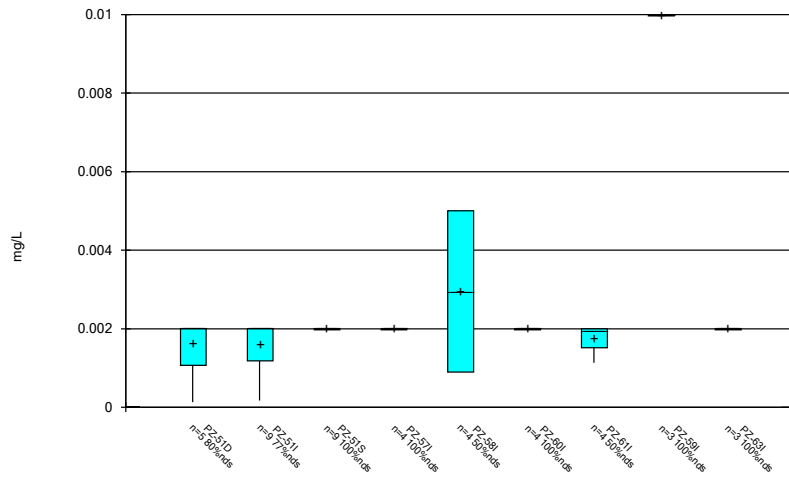
Constituent: Lead Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



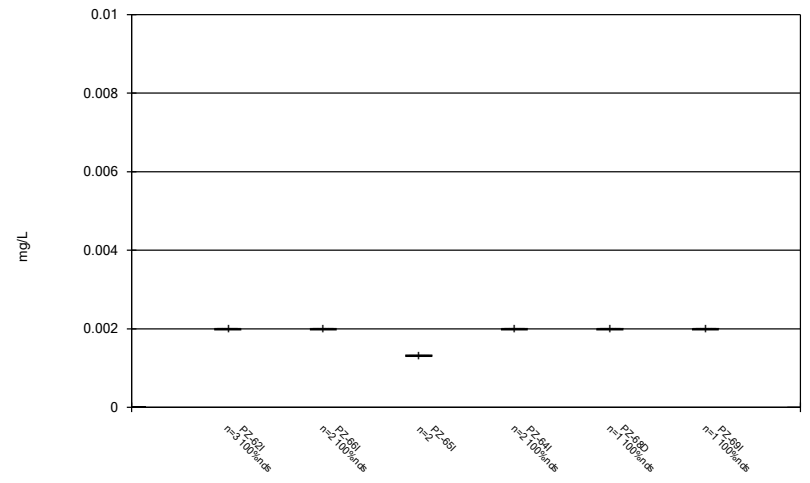
Constituent: Lead Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



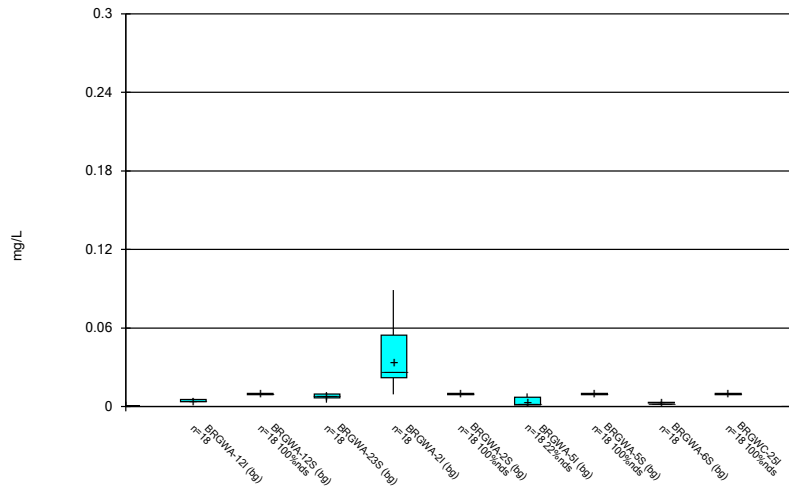
Constituent: Lead Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



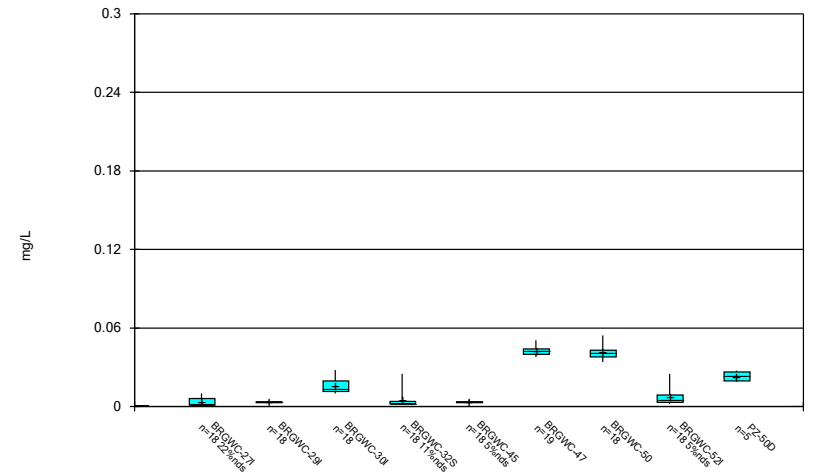
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



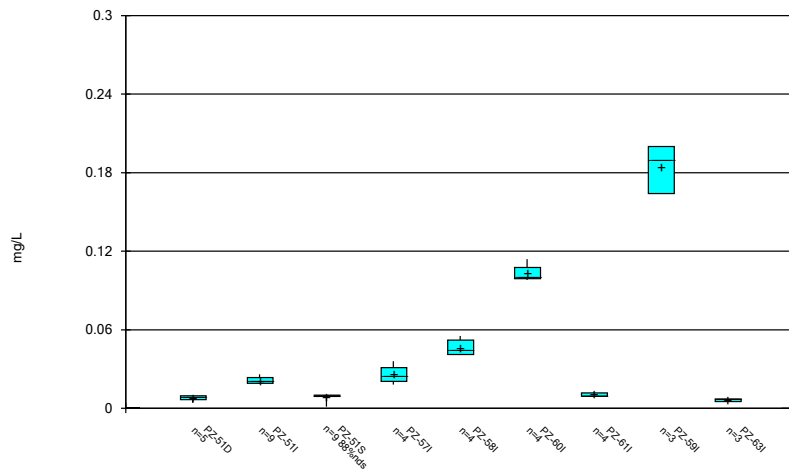
Constituent: Lithium Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



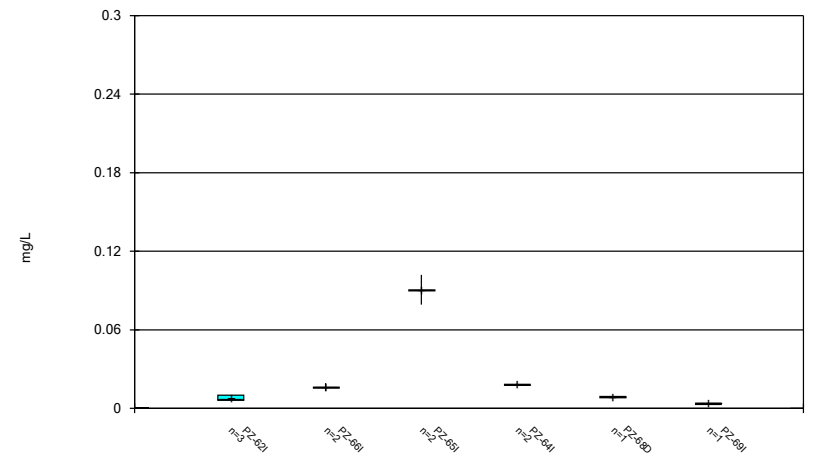
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



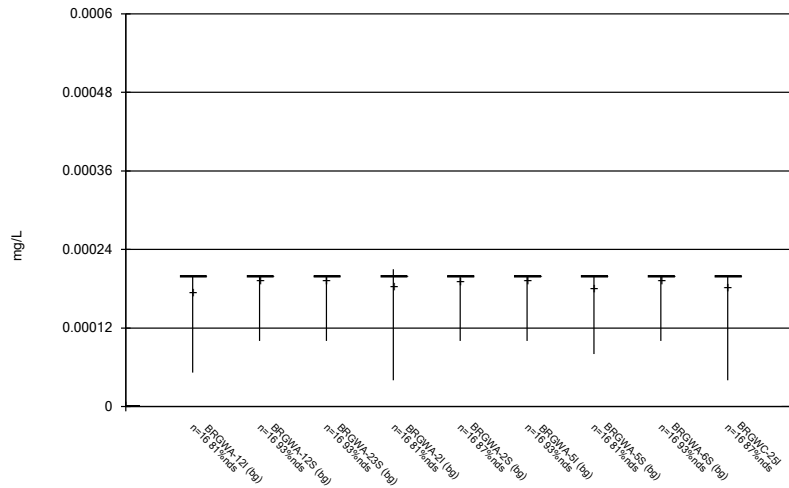
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



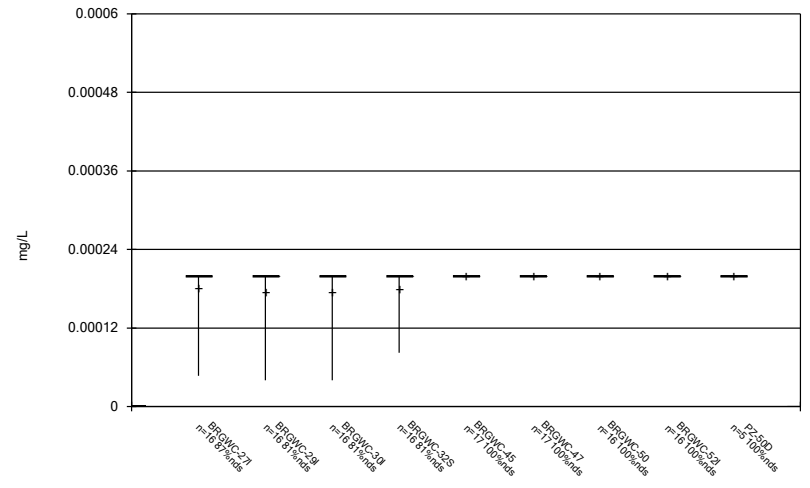
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



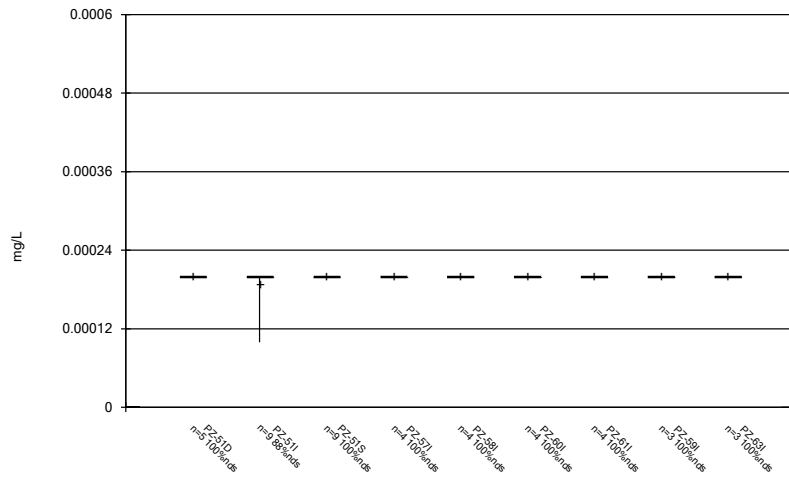
Constituent: Mercury Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



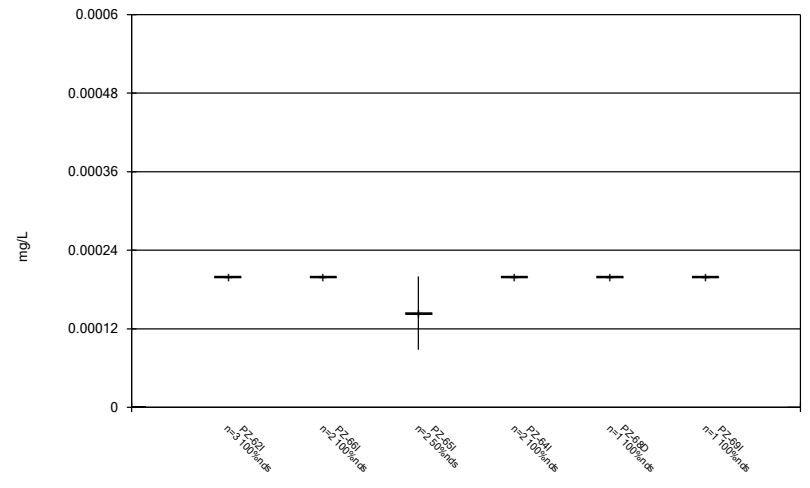
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



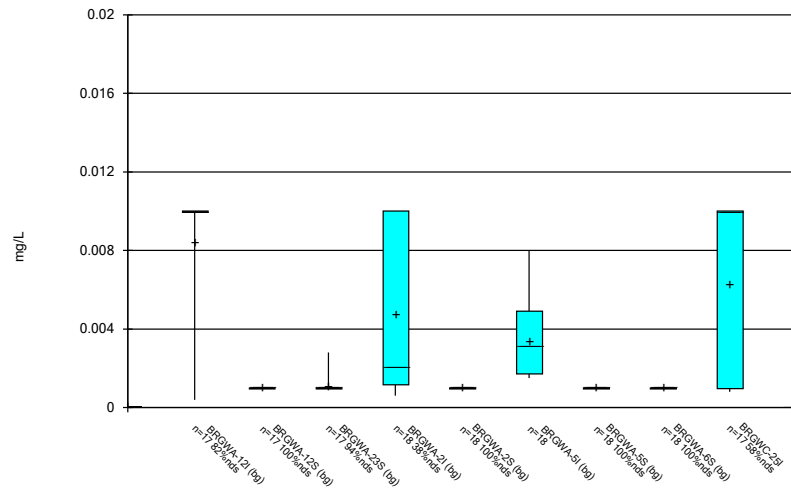
Constituent: Mercury Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



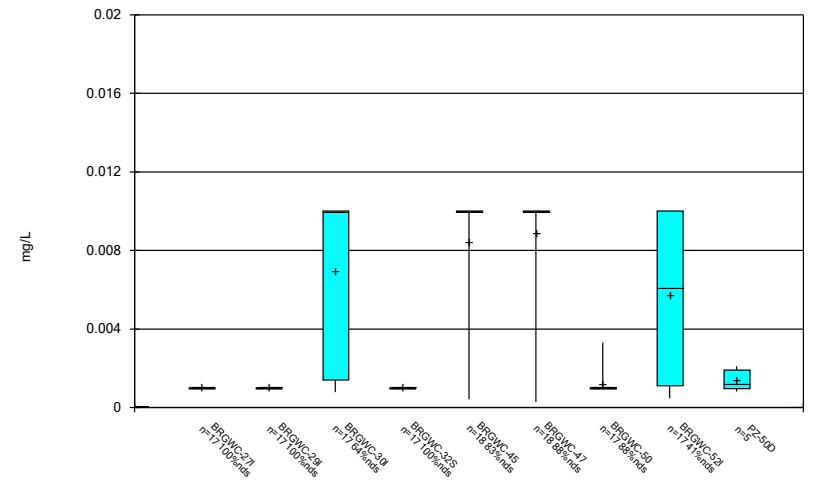
Constituent: Mercury Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



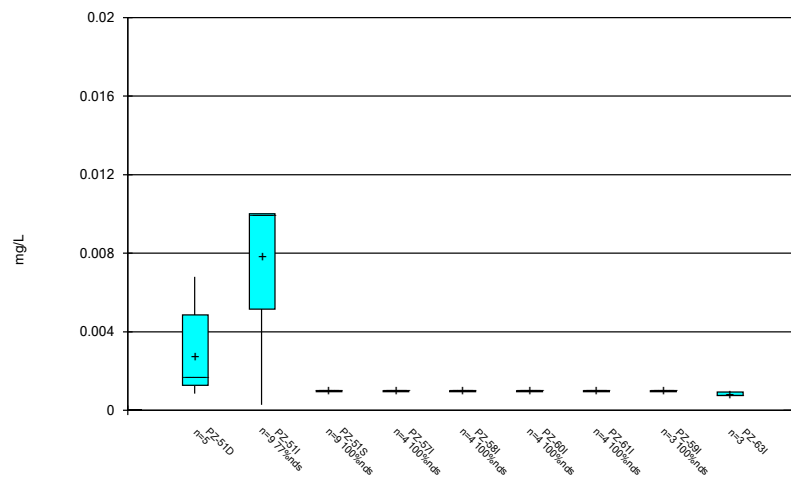
Constituent: Molybdenum Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



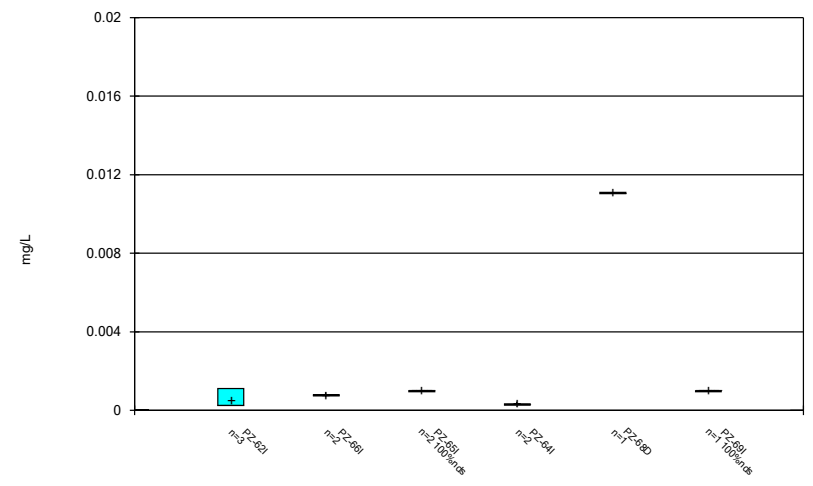
Constituent: Molybdenum Analysis Run 3/20/2023 1:33 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



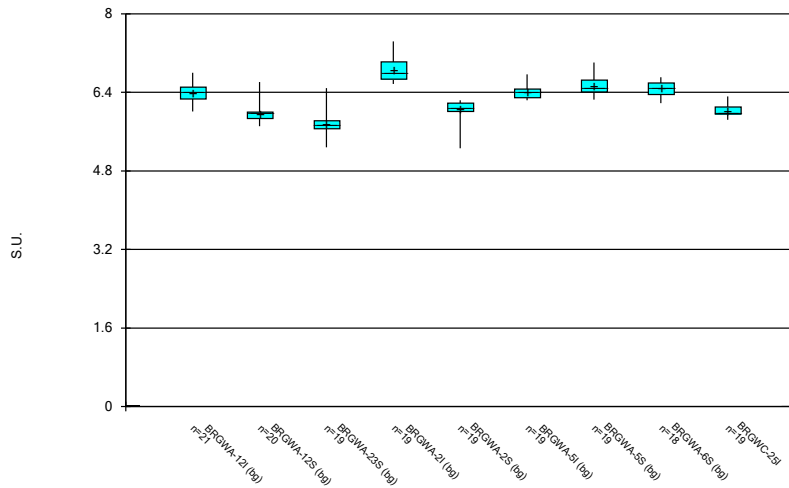
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



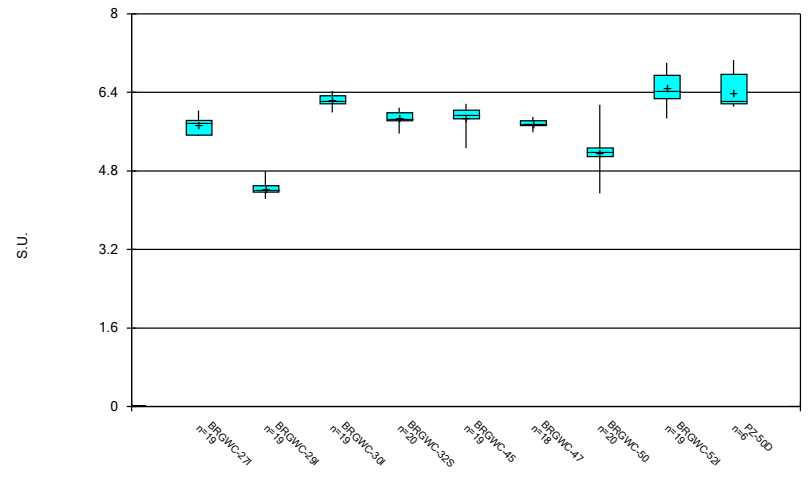
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



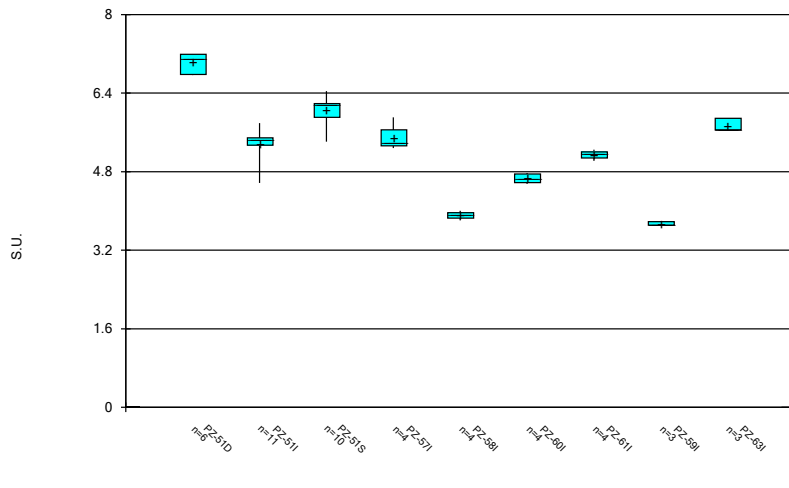
Constituent: pH, Field Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



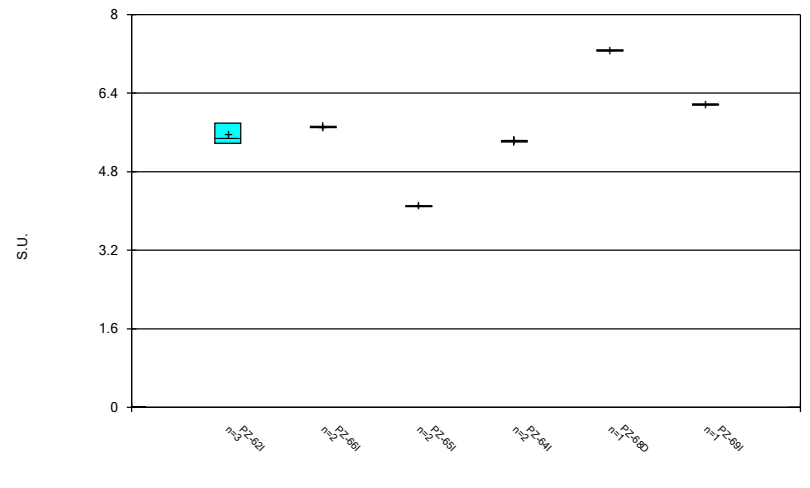
Constituent: pH, Field Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



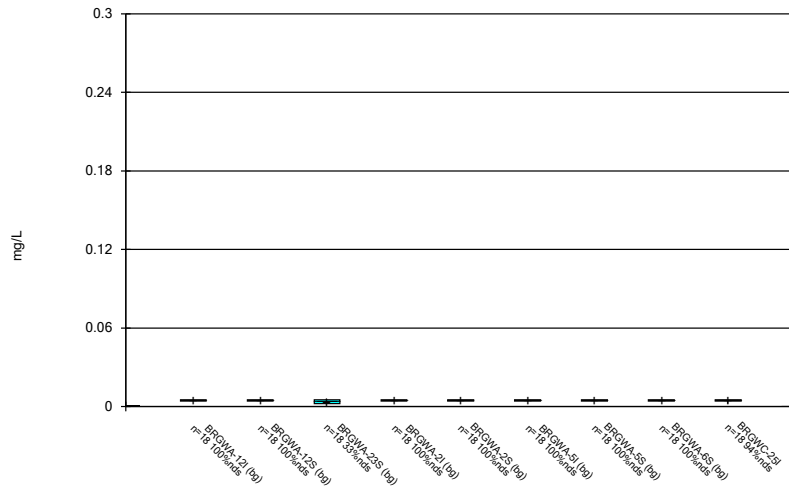
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



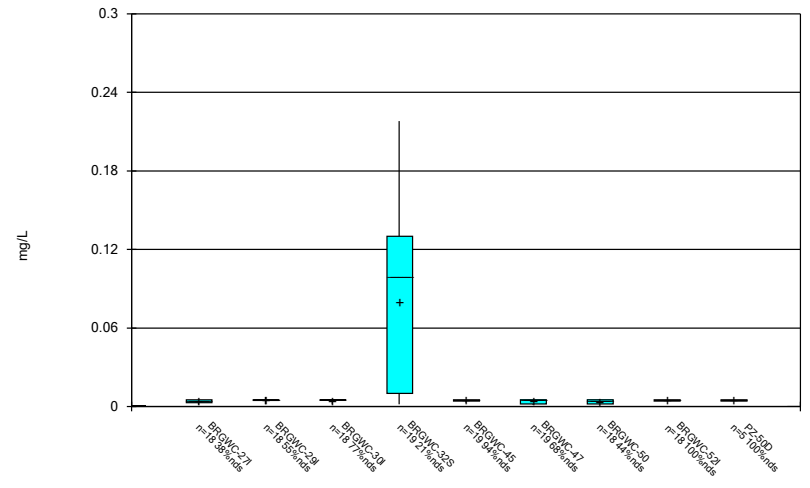
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



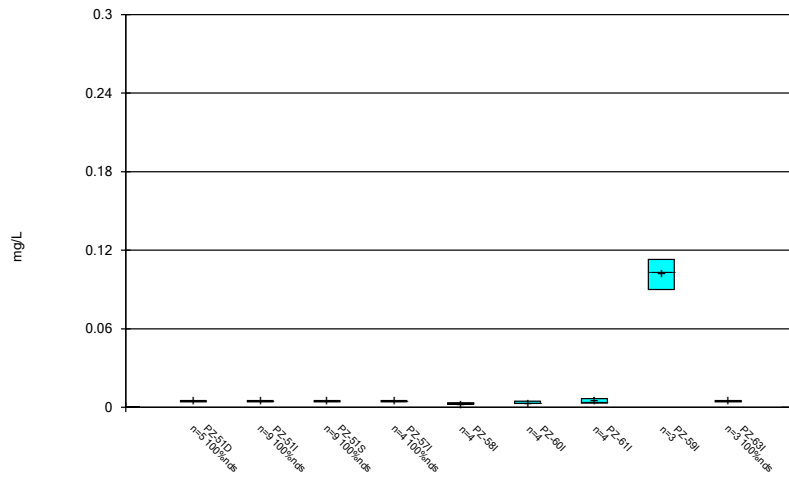
Constituent: Selenium Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



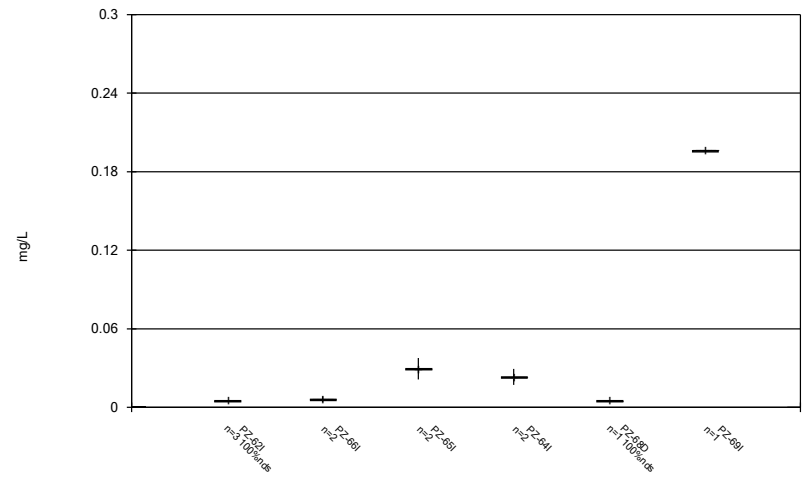
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



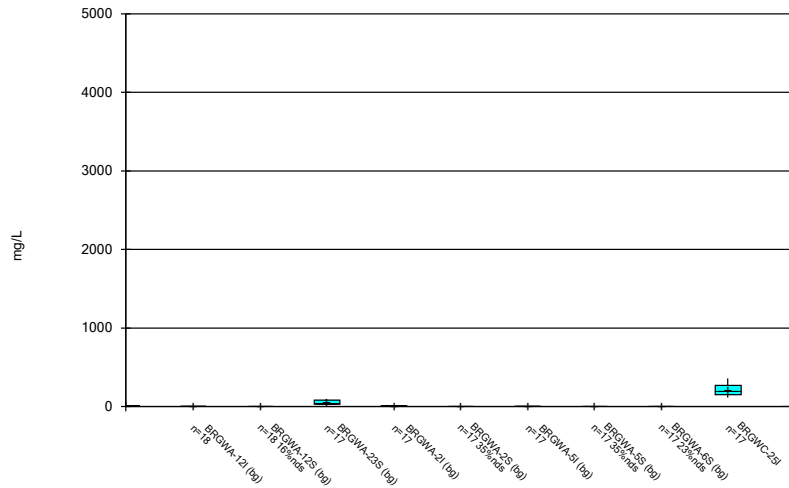
Constituent: Selenium Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



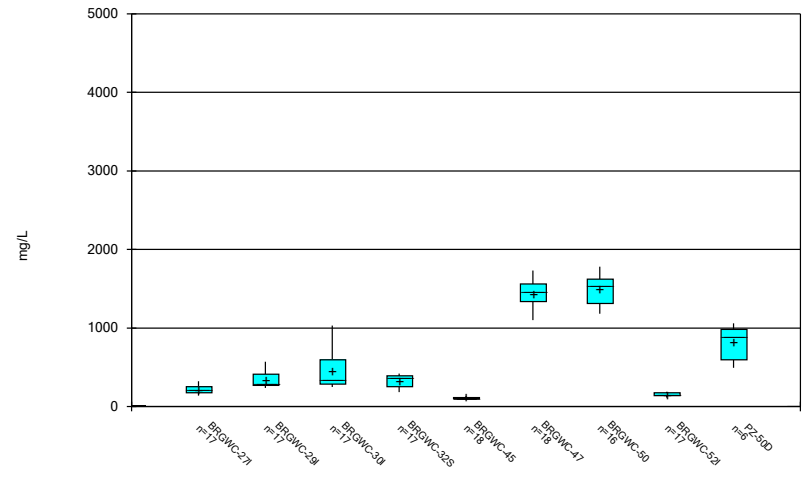
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



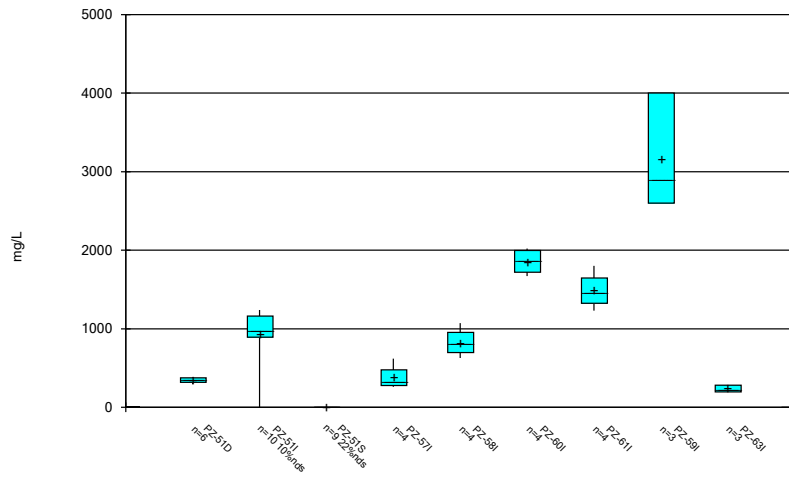
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



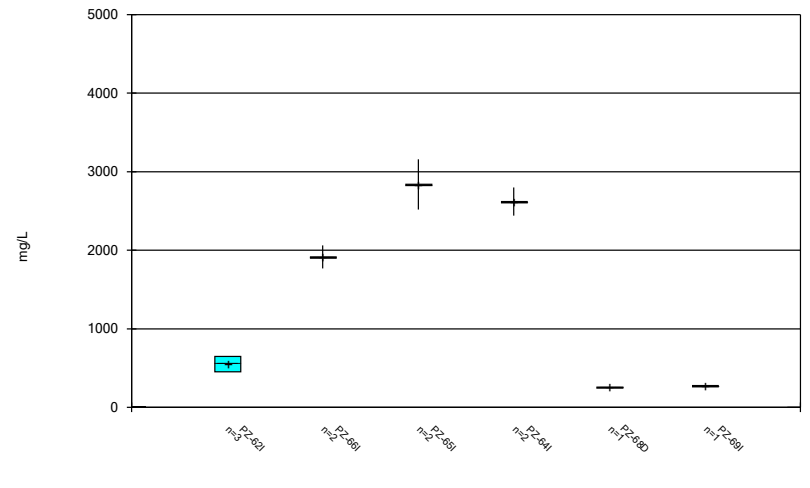
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Sulfate Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

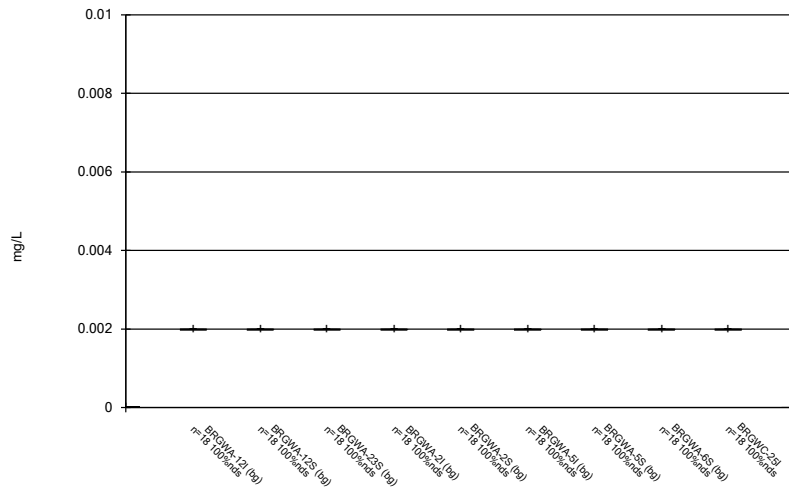
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

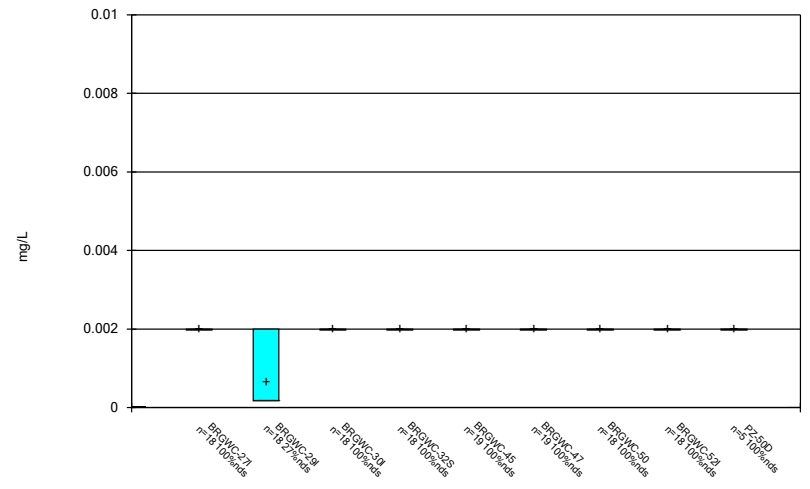


Box & Whiskers Plot



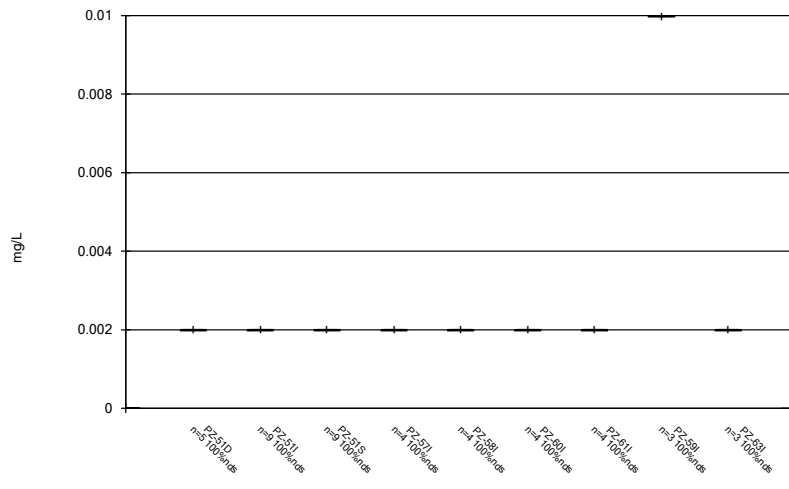
Constituent: Thallium Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



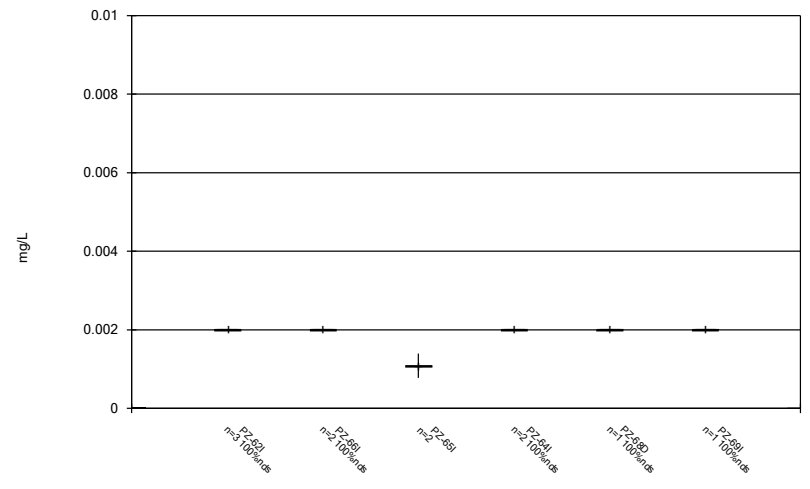
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



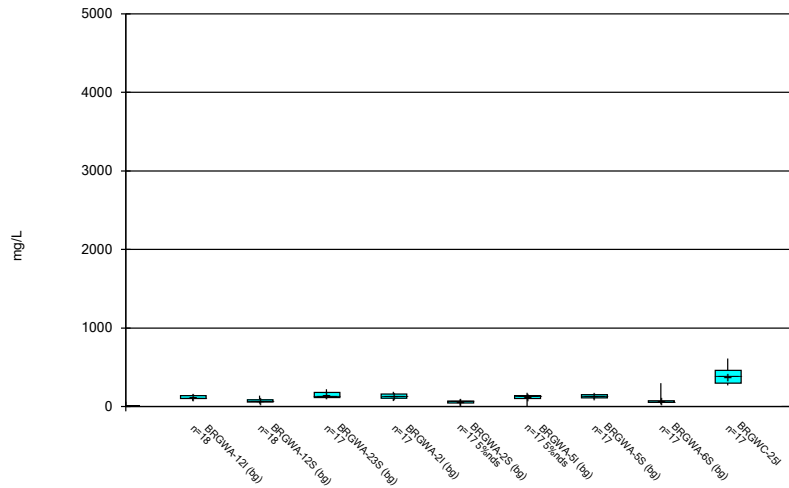
Constituent: Thallium Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



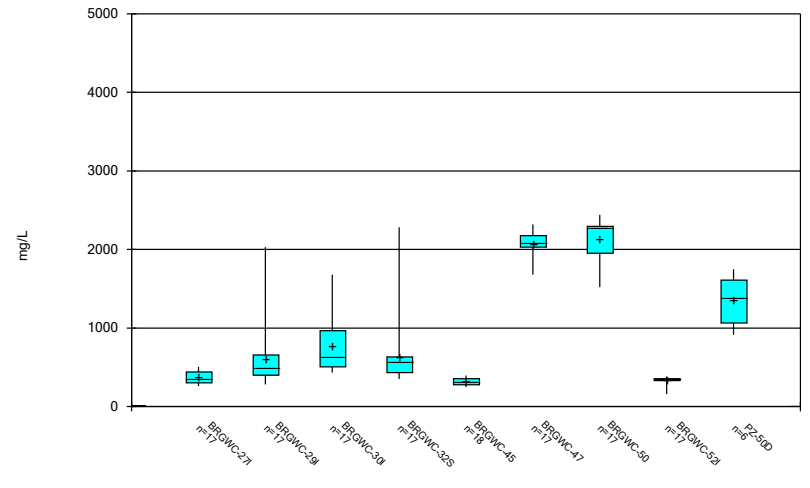
Constituent: Thallium Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



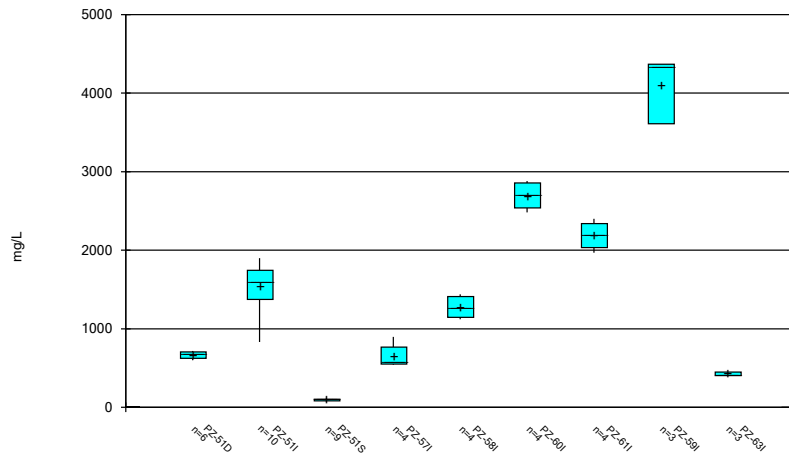
Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



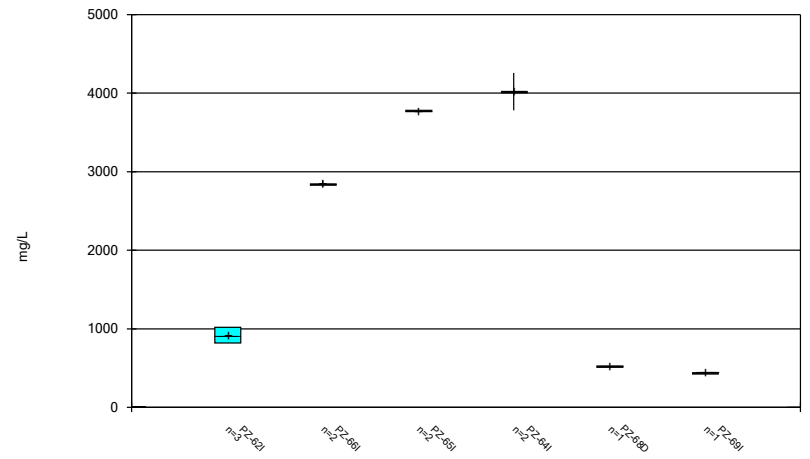
Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 3/20/2023 1:34 PM View: Pond BCD  
Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE C.

# Outlier Summary

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 1:50 PM

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	BRGWC-521 Calcium (mg/L)	BRGWA-51 Cobalt (mg/L)	BRGWC-521 Fluoride (mg/L)	BRGWC-291 Lead (mg/L)	BRGWC-45 Lithium (mg/L)	BRGWC-50 Sulfate (mg/L)	BRGWC-47 Total Dissolved Solids (mg/L)
11/16/2016	<0.01 (o)						
2/13/2018	<0.01 (o)						
2/14/2018			<0.005 (o)				
6/27/2018					31 (OX)		
7/31/2018				<0.25 (o)			
8/10/2018	410 (O)	1.6 (O)					
1/16/2019					589 (O)		

FIGURE D.

# Appendix III Interwell Prediction Limits - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:47 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)	BRGWC-25I	0.068	n/a	1/26/2023	1.45	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	1/25/2023	1.14	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	1/26/2023	1.07	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	1/26/2023	2.17	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	1/24/2023	1.11	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	1/26/2023	0.661	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	1/25/2023	0.383	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	1/25/2023	1.79	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	1/26/2023	57.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	1/25/2023	55.7	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	1/26/2023	68	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	1/26/2023	361	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	1/24/2023	46.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	1/25/2023	34.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	1/26/2023	331	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	1/25/2023	216	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	1/25/2023	36.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	1/26/2023	6.96	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	1/25/2023	27.4	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	1/25/2023	14.7	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	1/25/2023	6.35	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	1/25/2023	0.432	Yes	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.044	5.572	1/26/2023	4.3	Yes	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.044	5.572	1/25/2023	5.18	Yes	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	1/26/2023	182	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	1/25/2023	150	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	1/26/2023	293	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	1/26/2023	1030	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	1/24/2023	247	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	1/25/2023	102	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	1/26/2023	1310	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	1/25/2023	1290	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	1/25/2023	145	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	195	n/a	1/26/2023	339	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	195	n/a	1/25/2023	260	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	195	n/a	1/26/2023	419	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	195	n/a	1/26/2023	1680	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	195	n/a	1/24/2023	425	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	195	n/a	1/25/2023	251	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	195	n/a	1/26/2023	2010	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	195	n/a	1/25/2023	2040	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	195	n/a	1/25/2023	276	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2

# Appendix III Interwell Prediction Limits - All Results

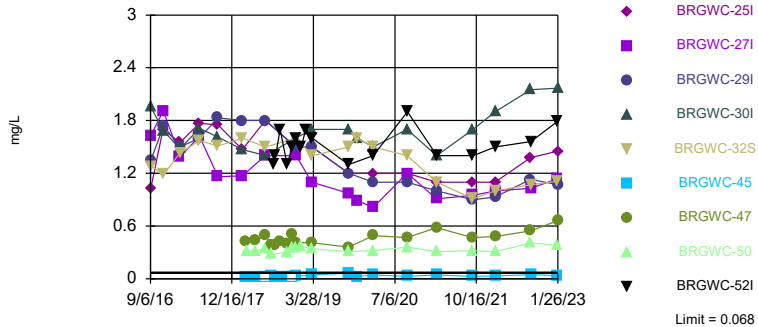
Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 2/27/2023, 3:47 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-25I	0.068	n/a	1/26/2023	1.45	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	1/25/2023	1.14	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	1/26/2023	1.07	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	1/26/2023	2.17	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	1/24/2023	1.11	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-45	0.068	n/a	1/25/2023	0.0355	No	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	1/26/2023	0.661	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	1/25/2023	0.383	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	1/25/2023	1.79	Yes	136	n/a	n/a	54.41	n/a	n/a	0.0001065	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	1/26/2023	57.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	1/25/2023	55.7	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	1/26/2023	68	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	1/26/2023	361	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	1/24/2023	46.6	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	1/25/2023	34.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	1/26/2023	331	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	1/25/2023	216	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	1/25/2023	36.3	Yes	138	n/a	n/a	4.348	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	1/26/2023	6.96	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-27I	5.8	n/a	1/25/2023	3.81	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	1/26/2023	5.59	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-30I	5.8	n/a	1/26/2023	3.82	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-32S	5.8	n/a	1/24/2023	4.49	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	1/25/2023	27.4	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-47	5.8	n/a	1/26/2023	4.96	No	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	1/25/2023	14.7	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	1/25/2023	6.35	Yes	138	n/a	n/a	0	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-25I	0.42	n/a	1/26/2023	0.202	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-27I	0.42	n/a	1/25/2023	0.152	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-29I	0.42	n/a	1/26/2023	0.0935J	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-30I	0.42	n/a	1/26/2023	0.167	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-32S	0.42	n/a	1/24/2023	0.082J	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-45	0.42	n/a	1/25/2023	0.163	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-47	0.42	n/a	1/26/2023	0.117	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	1/25/2023	0.432	Yes	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-52I	0.42	n/a	1/25/2023	0.169	No	152	n/a	n/a	51.97	n/a	n/a	0.00008565	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-25I	7.044	5.572	1/26/2023	6.18	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-27I	7.044	5.572	1/25/2023	5.63	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.044	5.572	1/26/2023	4.3	Yes	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-30I	7.044	5.572	1/26/2023	6.28	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-32S	7.044	5.572	1/24/2023	6.05	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-45	7.044	5.572	1/25/2023	5.82	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-47	7.044	5.572	1/26/2023	5.65	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.044	5.572	1/25/2023	5.18	Yes	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-52I	7.044	5.572	1/25/2023	6.25	No	154	6.308	0.3838	0	None	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	1/26/2023	182	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	1/25/2023	150	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	1/26/2023	293	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	1/26/2023	1030	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	1/24/2023	247	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	1/25/2023	102	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	1/26/2023	1310	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	1/25/2023	1290	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	1/25/2023	145	Yes	138	n/a	n/a	13.77	n/a	n/a	0.000103	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	195	n/a	1/26/2023	339	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	195	n/a	1/25/2023	260	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	195	n/a	1/26/2023	419	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	195	n/a	1/26/2023	1680	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	195	n/a	1/24/2023	425	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	195	n/a	1/25/2023	251	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	195	n/a	1/26/2023	2010	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	195	n/a	1/25/2023	2040	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	195	n/a	1/25/2023	276	Yes	138	106.9	45.83	1.449	None	No	0.0008358	Param Inter 1 of 2

Exceeds Limit: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50, BRGWC-52I

Prediction Limit

Interwell Non-parametric



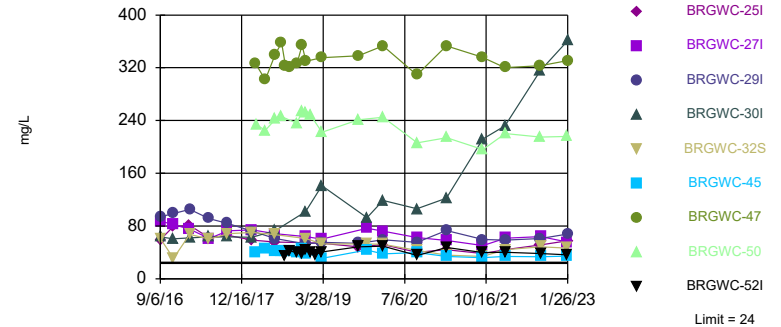
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 136 background values. 54.41% NDs. Annual per-constituent alpha = 0.001916. Individual comparison alpha = 0.0001065 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50,...

Prediction Limit

Interwell Non-parametric



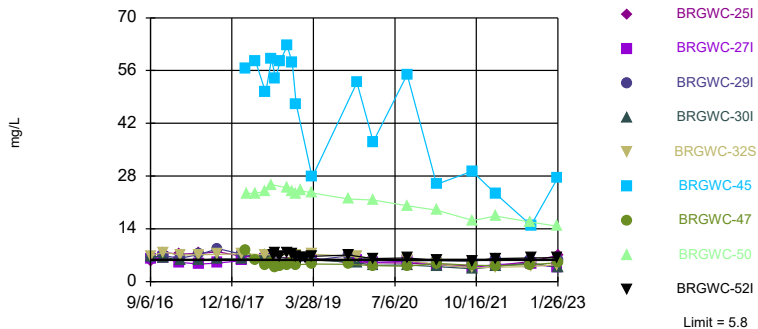
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. 4.348% NDs. Annual per-constituent alpha = 0.001852. Individual comparison alpha = 0.000103 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-25I, BRGWC-45, BRGWC-50, BRGWC-52I

Prediction Limit

Interwell Non-parametric



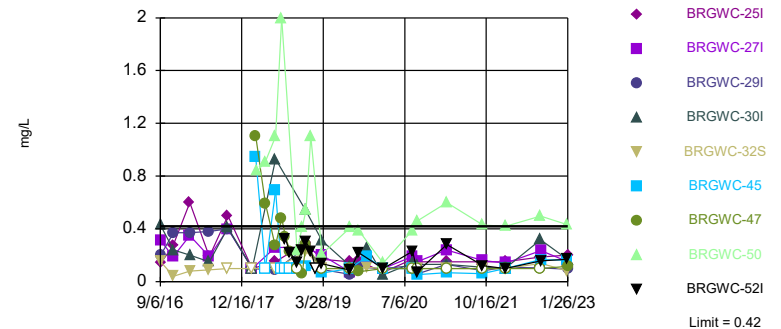
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. Annual per-constituent alpha = 0.001852. Individual comparison alpha = 0.000103 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-50

Prediction Limit

Interwell Non-parametric



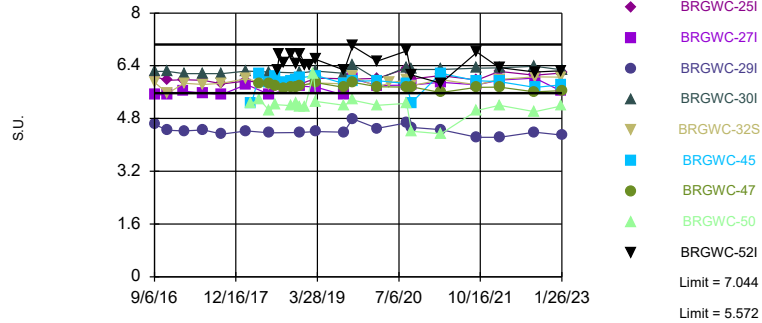
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 152 background values. 51.97% NDs. Annual per-constituent alpha = 0.001541. Individual comparison alpha = 0.00008565 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP



Exceeds Limits: BRGWC-291, BRGWC-50

### Prediction Limit Interwell Parametric

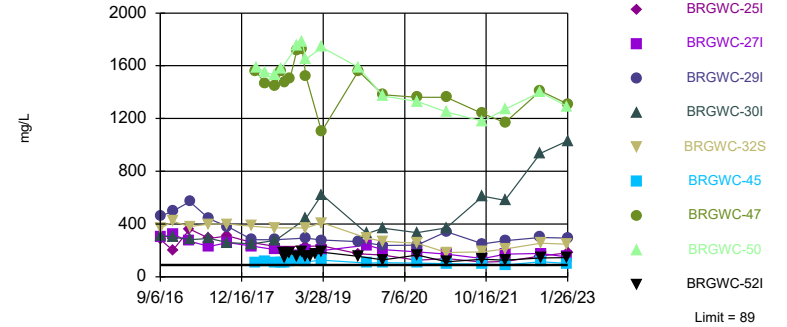


Background Data Summary: Mean=6.308, Std. Dev.=0.3838, n=154. Normality test: Chi Squared @alpha = 0.01, calculated = 7.429, critical = 14.07. Kappa = 1.918 (c=7, w=9, 1 of 2, event alpha = 0.05132). N exceeds UG tables; Kappa based on n=150. Report alpha = 0.007498. Individual comparison alpha = 0.0004179. Comparing 9 points to limit.

Constituent: pH, Field Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-251, BRGWC-271, BRGWC-291, BRGWC-301, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50,...

### Prediction Limit Interwell Non-parametric

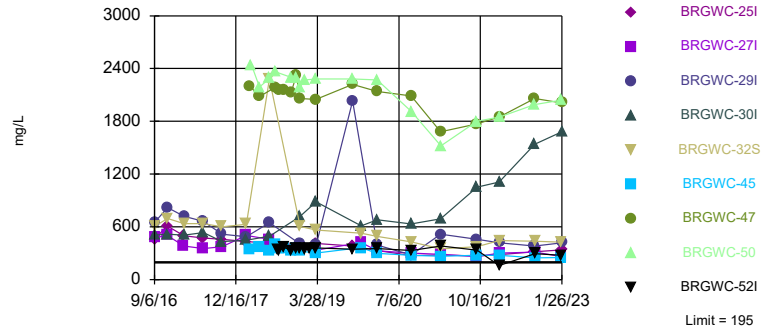


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 138 background values. 13.77% NDs. Annual per-constituent alpha = 0.001852. Individual comparison alpha = 0.000103 (1 of 2). Comparing 9 points to limit.

Constituent: Sulfate Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-251, BRGWC-271, BRGWC-291, BRGWC-301, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50,...

### Prediction Limit Interwell Parametric



Background Data Summary: Mean=106.9, Std. Dev.=45.83, n=138, 1.449% NDs. Normality test: Chi Squared @alpha = 0.01, calculated = 12.29, critical = 14.07. Kappa = 1.923 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0008358. Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:46 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	<0.015	<0.015	0.0072 (J)	<0.015					
9/1/2016					<0.015	<0.015	0.0093 (J)		
9/6/2016								1.96	0.0362 (J)
9/8/2016									
11/15/2016				0.0085 (J)	0.0123 (J)				
11/16/2016	0.0109 (J)	0.0187 (J)	0.0117 (J)			0.0081 (J)	0.0127 (J)		
11/17/2016									0.0617
11/18/2016									
11/21/2016								1.68	
2/20/2017		0.0066 (J)		0.0093 (J)	0.0157 (J)				
2/21/2017	<0.015		0.0088 (J)			<0.015	0.0071 (J)		0.0245 (J)
2/22/2017								1.48	
6/12/2017		<0.015	0.0133 (J)	<0.015	<0.015				
6/13/2017	<0.015					<0.015			<0.015
6/14/2017							0.0078 (J)	1.71	
9/26/2017	<0.015	<0.015	0.0093 (J)	<0.015	<0.015	<0.015	<0.015		<0.015
9/27/2017								1.61	
2/13/2018	<0.015	<0.015	0.0141 (J)	<0.015	<0.015				
2/14/2018						<0.015	0.0068 (J)	1.47	0.0314 (J)
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	<0.015	0.0042 (J)	0.012 (J)	0.0056 (J)	0.0041 (J)	<0.015	0.008 (J)		0.062
6/27/2018									
6/28/2018								1.4	
7/31/2018									
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	<0.015	<0.015	0.0086 (J)	0.0062 (J)	<0.015	0.0053 (J)	0.0083 (J)	1.6	0.055
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	<0.015	<0.015	0.00565 (JD)	<0.015	<0.015	<0.015	0.008 (J)		0.068
3/20/2019								1.7	
10/15/2019	<0.015	<0.015	0.0067 (J)	0.006 (J)	0.01 (J)	<0.015	0.006 (J)		0.022 (J)
10/16/2019									
10/17/2019								1.7	
12/3/2019									
12/4/2019								1.6	
3/3/2020	<0.015	<0.015	0.0082 (J)	<0.015	<0.015	0.0065 (J)	0.01 (J)		
3/4/2020									0.044 (J)
3/5/2020								1.5	
9/15/2020	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.0071 (J)		0.033 (J)
9/16/2020								1.7	
9/17/2020									
3/1/2021			<0.015		<0.015				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWC-30I	BRGWA-23S (bg)
3/2/2021	<0.015	0.0053 (J)		0.0071 (J)		<0.015	0.0057 (J)		0.042
3/3/2021								1.4	
3/4/2021									
9/21/2021		<0.015		<0.015		<0.015	<0.015		
9/22/2021	<0.015		<0.015		<0.015				0.047
9/23/2021									
9/27/2021									
9/28/2021								1.7	
2/1/2022	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015		0.046
2/2/2022								1.9	
2/3/2022									
2/4/2022									
8/23/2022	0.00532 (J)	<0.015	0.00592 (J)	0.00538 (J)	<0.015	<0.015	0.00653 (J)		0.0498
8/24/2022								2.15	
8/25/2022									
1/24/2023	<0.015	<0.015	<0.015	<0.015	<0.015	0.0053 (J)	0.00884 (J)		0.0437
1/25/2023									
1/26/2023								2.17	

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-27I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	1.35	1.28	1.03	1.63				
11/15/2016								
11/16/2016								
11/17/2016			1.7					
11/18/2016				1.91				
11/21/2016	1.74	1.19						
2/20/2017								
2/21/2017			1.55	1.39				
2/22/2017	1.5	1.43						
6/12/2017								
6/13/2017			1.77	1.62				
6/14/2017	1.6	1.57						
9/26/2017								
9/27/2017	1.83	1.51	1.75	1.16				
2/13/2018								
2/14/2018	1.8	1.6	1.47	1.17				
3/6/2018					0.0198 (J)	0.428		
3/15/2018							0.32	
5/1/2018					0.015 (J)	0.435 (D)	0.32	
6/26/2018			1.8					
6/27/2018	1.8 (J+X)	1.5 (J+X)		1.4 (J+X)		0.49 (J+X)		
6/28/2018					<0.015 (X)		0.34	
7/31/2018					0.035 (J)			
8/1/2018						0.39	0.28	
8/10/2018								1.3
8/23/2018					0.022 (J)	0.39		1.4
9/19/2018					0.021 (J)	0.43		1.7
10/29/2018					0.021 (J)	0.4	0.3	1.3
11/28/2018					<0.015 (X)	0.51	0.35	1.5
12/18/2018	1.5		1.5					
12/19/2018		1.6				0.41	0.35	
12/20/2018				1.4	0.028 (J)			1.6
1/16/2019							0.37	
1/17/2019								1.5
2/13/2019								1.7
3/19/2019				1.1		0.41		
3/20/2019	1.5	1.4	1.5 (D)		0.043		0.34	1.6 (D)
10/15/2019			1.2					
10/16/2019	1.2					0.36	0.31	1.3
10/17/2019		1.5		0.97	0.064			
12/3/2019					0.027 (J)			
12/4/2019		1.6		0.89				
3/3/2020								
3/4/2020	1.1		1.2	0.81		0.49	0.32	1.4
3/5/2020		1.5			0.044 (J)			
9/15/2020	1.1		1.2					
9/16/2020		1.4		1.2	0.028 (J)	0.47		
9/17/2020							0.36	1.9
3/1/2021								

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-27I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/2/2021			1.1		0.044	0.58		
3/3/2021	1			0.91				
3/4/2021		1.1					0.31	1.4
9/21/2021								
9/22/2021								
9/23/2021					0.029 (J)	0.47		
9/27/2021							0.32	
9/28/2021	0.9	0.91	1.1	0.95				1.4
2/1/2022								
2/2/2022		1	1.1		0.034 (J)	0.48		1.5
2/3/2022	0.93						0.31	
2/4/2022				1				
8/23/2022			1.38			0.547		
8/24/2022	1.13						0.406	
8/25/2022		1.07		1.03	0.0458			1.56
1/24/2023		1.11						
1/25/2023				1.14	0.0355		0.383	1.79
1/26/2023	1.07		1.45			0.661		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-6S (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	19.6	13.5	4.09	12.6					
9/1/2016					8.98	4.61	3.3		
9/6/2016								63.3	12.8
9/8/2016									
11/15/2016	21.7						3.44		
11/16/2016		14.9	4.25	12.1	15.4	4.17			
11/17/2016									19.2
11/18/2016									
11/21/2016								60.7	
2/20/2017	21.1	13.9					3.52		
2/21/2017			4.02	11.4	17.4	5			15.1
2/22/2017								62.1	
6/12/2017	21.5	13.7		9.34			3.11		
6/13/2017			3.84			4.98			10.2
6/14/2017					18.1			63.5	
9/26/2017	24	14.4	3.31	14.3	19.3	4.49	3.15		15
9/27/2017								63.5	
2/13/2018	<25	<25	3.94	<25			3.65		
2/14/2018					<25	<25		62.8	<25
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	23.5 (J)	13.5 (J)	3.6	16 (J)	15.5 (J)	6.4	3.3		18.5 (J)
6/27/2018									
6/28/2018								73.3	
7/31/2018					18.2 (J)	6.1			
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	19.8 (J)	16.4 (J)	3.8	14.5 (J)	18.7 (J)	5.5	3.5	102	16.8 (J)
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	21.4 (J)	12.3 (J)	3.9	14.3 (JD)	15.9 (J)	5.9	3.6		13.5 (J)
3/20/2019								141	
10/15/2019	20	14.4	3.7	15.1	15.9	6.2	3.5		8.6
10/16/2019									
12/3/2019									
12/4/2019								92.6	
3/3/2020	23.2	14.9	4	20	19.4	6.8	5		
3/4/2020									11.5
3/5/2020								119	
9/15/2020	16.8	12.7	3.9	14.1	14.5	5.7	3.7		10.7
9/16/2020								106	
9/17/2020									
3/1/2021				15.4			4.2		
3/2/2021	16.8	13.2	4		11.7	5.4			11.6



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	87.2	60.5	93.9	59.4				
11/15/2016								
11/16/2016								
11/17/2016				78.4				
11/18/2016	82.4							
11/21/2016		31.1	99.1					
2/20/2017								
2/21/2017	75.1			80.9				
2/22/2017		67.3	105					
6/12/2017								
6/13/2017	61			62				
6/14/2017		60.2	91.3					
9/26/2017								
9/27/2017	72.6	68.4	84	65.8				
2/13/2018								
2/14/2018	74.1	70.2	72.1	58.8				
3/6/2018					39.5	326		
3/15/2018							233	
5/1/2018					45.5	302 (D)	225	
6/26/2018				55.5				
6/27/2018	68.2	67.1	61.1			340		
6/28/2018					41.9		242	
7/31/2018					41.5			
8/1/2018						358	246	
8/10/2018								410 (O)
8/23/2018					42.3	323		33.9
9/19/2018					41.9	321		42.3
10/29/2018					40.8	326	236	39.8
11/28/2018					45.1	354	254	38.2
12/18/2018			52.9	54.7				
12/19/2018		61.2				330	252	
12/20/2018	63.9				39			43.2
1/16/2019							248	
1/17/2019								39.4
2/13/2019								36.9
3/19/2019	60.2					335		
3/20/2019		52.8	55.4	53.95 (D)	31.2		222	40.85 (D)
10/15/2019				48.3				
10/16/2019			54			338	241	48.4
12/3/2019					43.7			
12/4/2019	76.8	52.7						
3/3/2020								
3/4/2020	72.3		59.3	52		353	245	49.5
3/5/2020		52.1			37.9			
9/15/2020			55.1	40.1				
9/16/2020	62.5	43.1			39.7	309		
9/17/2020							206	35.4
3/1/2021								
3/2/2021				44.1	33.9	353		



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-25I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/3/2021	58.2		73.3					
3/4/2021		35.7					214	47.5
9/21/2021								
9/22/2021								
9/23/2021					32	336		
9/27/2021							196	
9/28/2021	50.4	33.9	59.5	38.4				39.5
2/1/2022								
2/2/2022		44.2		44.3	33.8	320		40.1
2/3/2022			58.7				220	
2/4/2022	61.7							
8/23/2022				51.5		323		
8/24/2022			61				215	
8/25/2022	64	48.5			33.5			38.3
1/24/2023		46.6						
1/25/2023	55.7				34.3		216	36.3
1/26/2023			68	57.6		331		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	3.6	4.4	2	2.3					
9/1/2016					3.3	2.5	3.5		
9/6/2016								6.7	5.8
9/8/2016									
11/15/2016	4					2.3			
11/16/2016		4.4	1.8	2	3.6		3.6		
11/17/2016									4.3
11/18/2016									
11/21/2016								6.5	
2/20/2017	3.9	4.8				2.4			
2/21/2017			1.8	2	3.2		3.2		3.5
2/22/2017								5.6	
6/12/2017	3.8	4.2		2.1		2.2			
6/13/2017			1.7				3.3		3.2
6/14/2017					3.1			5.7	
9/26/2017	4.1	4.4	1.8	2	3.3	2.3	3.3		3.5
9/27/2017								6	
2/13/2018	4.1	4.7	1.7	2.1		2.3			
2/14/2018					3.1		3.5	5.9	3.8
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	4.1	4.5	2.2	2.4	3.4	2.6	3.4		3.8
6/27/2018									
6/28/2018								7 (J-X)	
7/31/2018					2.6		2.9		
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	3.8	4.5	1.9	1.8	2.8	2.3	2.9	5.8	3.9
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	4.2	4.5	2	2.45 (D)	3.2	2.6	3.5		3.8
3/20/2019								5.8	
10/15/2019	3.7	4.2	1.9	2.2	3.1	2.4	3.4		3.5
10/16/2019									
12/3/2019									
12/4/2019								5	
3/3/2020	3.6	3.9	1.9	1.9	2.6	2.9	3.2		
3/4/2020									3.3
3/5/2020								4.3	
9/15/2020	3.7	3.7	1.7	1.9	2.4	2.3	3.5		3.1
9/16/2020								4.4	
9/17/2020									
3/1/2021				1.8		2.1			
3/2/2021	3.7	3.8	1.7		2.6		3.7		3.5



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-25I	BRGWC-32S	BRGWC-27I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	6.4	5.5	6.8	6				
11/15/2016								
11/16/2016								
11/17/2016		7.7						
11/18/2016				6.3				
11/21/2016	6.9		7.8					
2/20/2017								
2/21/2017		7.3		5.1				
2/22/2017	6.2		7					
6/12/2017								
6/13/2017		7.5		4.7				
6/14/2017	7.2		7.1					
9/26/2017								
9/27/2017	8.7	7.9	7.2	4.9				
2/13/2018								
2/14/2018	7.2	6.7	7.4	5.6				
3/6/2018					56.6	8.4		
3/15/2018							23.3	
5/1/2018					58.5	5.7 (JXD)	23.4	
6/26/2018		6.7						
6/27/2018	6.3		7.1	5.9		4.4		
6/28/2018					50.2 (J-X)		24 (J-X)	
7/31/2018					59			
8/1/2018						5.2	25.7	
8/10/2018								6.9
8/23/2018					54	3.6		7.5
9/19/2018					58.4	4.1		6.6
10/29/2018					62.6	4.3	24.9	7.8
11/28/2018					58.1	5.1	24	7.2
12/18/2018	5.4	6.2						
12/19/2018			7 (J-X)			4.5 (J-X)	23.3 (J-X)	
12/20/2018				5.6 (J-X)	47.2 (J-X)			6.6 (J-X)
1/16/2019							24.1	
1/17/2019								6.4
2/13/2019								6.5
3/19/2019				5.8		4.7		
3/20/2019	5.6	6.3 (D)	7.3		27.7		23.5	6.7 (D)
10/15/2019		5						
10/16/2019	6.9					4.6	21.9	7
12/3/2019					52.8			
12/4/2019			6.6	5.6				
3/3/2020								
3/4/2020	5.8	5		5.1		4.2	21.6	6.1
3/5/2020			6		37.1			
9/15/2020	5.5	4.9						
9/16/2020			5.6	5.4	54.9	4.1		
9/17/2020							20.1	6.3
3/1/2021								
3/2/2021		4.5			25.8	4.8		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-25I	BRGWC-32S	BRGWC-27I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/3/2021	5.6			4.5				
3/4/2021			4.6				18.9	5.6
9/21/2021								
9/22/2021								
9/23/2021					29.3	4.3		
9/27/2021							16.2	
9/28/2021	5.4	4.2	3.6	3.7				5.5
2/1/2022								
2/2/2022		4.2	3.8		23.4	4.2		6.1
2/3/2022	6.1						17.4	
2/4/2022				4.6				
8/23/2022		5.38				4.49		
8/24/2022	5.84						15.8	
8/25/2022			3.96	4.65	14.9			6.27
1/24/2023			4.49					
1/25/2023				3.81	27.4		14.7	6.35
1/26/2023	5.59	6.96				4.96		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-6S (bg)	BRGWA-23S (bg)	BRGWC-30I
8/31/2016	0.11 (J)	0.05 (J)	0.07 (J)	0.19 (J)					
9/1/2016					0.2 (J)	0.05 (J)	0.06 (J)		
9/6/2016								0.42	0.43
9/8/2016									
11/15/2016				0.13 (J)			0.06 (J)		
11/16/2016	0.08 (J)	0.07 (J)	0.07 (J)		0.14 (J)	0.03 (J)			
11/17/2016								0.15 (J)	
11/18/2016									
11/21/2016									0.24 (J)
2/20/2017			0.06 (J)	0.08 (J)			0.04 (J)		
2/21/2017	0.14 (J)	0.05 (J)			0.16 (J)	0.04 (J)		0.1 (J)	
2/22/2017									0.2 (J)
6/12/2017	0.16 (J)		0.008 (J)	0.07 (J)			0.06 (J)		
6/13/2017		0.04 (J)				0.008 (J)		0.07 (J)	
6/14/2017					0.09 (J)				0.15 (J)
9/26/2017	0.14 (J)	<0.1	<0.1	0.04 (J)	0.1 (J)	<0.1	<0.1	<0.1	
9/27/2017									0.41
2/13/2018	<0.1	<0.1	<0.1	<0.1			<0.1		
2/14/2018					<0.1	<0.1		<0.1	<0.1
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	0.085 (J)	0.048 (J)	0.045 (J)	0.072 (J)	0.079 (J)	0.042 (J)	0.041 (J)	0.053 (J)	
6/27/2018									
6/28/2018									0.93 (J+X)
7/31/2018									
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	0.085 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.54
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	0.0655 (JD)	0.037 (J)	<0.1	0.06 (J)	<0.1	<0.1	0.03 (J)	<0.1	
3/20/2019									0.31
8/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		0.12 (J)
8/28/2019									
8/29/2019								0.084 (J)	
10/15/2019	<0.1	<0.1	<0.1	0.045 (J)	0.047 (J)	<0.1	<0.1	<0.1	
10/16/2019									
12/3/2019									
12/4/2019									0.26 (J)
3/3/2020	0.066 (J)	0.05 (J)	<0.1	0.057 (J)	0.056 (J)	<0.1	0.09 (J)		
3/4/2020								<0.1	
3/5/2020									0.051 (J)
8/18/2020	<0.1	<0.1	<0.1	<0.1	0.052 (J)	<0.1	<0.1	<0.1	
8/19/2020									0.14

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-6S (bg)	BRGWA-23S (bg)	BRGWC-30I
8/20/2020									
9/15/2020	<0.1	<0.1	<0.1	0.051 (J)	0.062 (J)	<0.1	<0.1	<0.1	
9/16/2020									0.13
9/17/2020									
3/1/2021	<0.1						<0.1		
3/2/2021		<0.1	<0.1	<0.1	0.061 (J)	<0.1		<0.1	
3/3/2021									0.13
3/4/2021									
9/21/2021			<0.1	0.056 (J)	0.071 (J)	<0.1			
9/22/2021	<0.1	<0.1					<0.1	0.069 (J)	
9/23/2021									
9/27/2021									
9/28/2021									0.11
2/1/2022	<0.1	<0.1	<0.1	<0.1	0.055 (J)	<0.1	<0.1	<0.1	
2/2/2022									0.1
2/3/2022									
2/4/2022									
8/23/2022	<0.1	<0.1	<0.1	<0.1	0.151	0.129	<0.1	0.157	
8/24/2022									0.318
8/25/2022									
1/24/2023	<0.1	<0.1	0.149	0.158	0.214	0.0926 (J)	0.12	0.231	
1/25/2023									
1/26/2023									0.167

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-32S	BRGWC-271	BRGWC-251	BRGWC-291	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	0.15 (J)	0.31	0.14 (J)	0.2 (J)				
11/15/2016								
11/16/2016								
11/17/2016			0.27 (J)					
11/18/2016		0.19 (J)						
11/21/2016	0.04 (J)			0.37				
2/20/2017								
2/21/2017		0.35	0.6					
2/22/2017	0.08 (J)			0.37				
6/12/2017								
6/13/2017		0.19 (J)	0.19 (J)					
6/14/2017	0.09 (J)			0.38				
9/26/2017								
9/27/2017	<0.1	0.4	0.5	0.4				
2/13/2018								
2/14/2018	<0.1	<0.1	<0.1	<0.1				
3/6/2018					1.1	0.94		
3/15/2018							0.84 (JX)	
5/1/2018					0.595 (D)	<0.1	0.91	
6/26/2018			0.15 (J)					
6/27/2018	<0.1	0.26 (J)		0.085 (J)	0.27 (J)			
6/28/2018						0.69 (J+X)	1.1 (J+X)	
7/31/2018						<0.1		
8/1/2018					0.48		2	
8/10/2018								1.6 (O)
8/23/2018					0.34	<0.1		0.32
9/19/2018					0.23 (J)	<0.1		0.22 (J)
10/29/2018					<0.1	<0.1	0.24 (J)	0.14 (J)
11/28/2018					0.063 (J)	<0.1	0.41	0.24 (J)
12/18/2018			0.29 (J)	0.26 (J)				
12/19/2018	0.23 (J)				0.28 (J)		0.54	
12/20/2018		0.26 (J)				0.12 (J)		0.3
1/16/2019							1.1	
1/17/2019								0.23 (J)
2/13/2019								<0.1
3/19/2019		0.2 (J)			<0.1			
3/20/2019	<0.1		0.17 (JD)	0.091 (J)		0.066 (J)	0.21 (J)	0.135 (JD)
8/27/2019	<0.1		0.15 (J)					
8/28/2019		0.074 (J)		0.055 (J)	<0.1	<0.1		
8/29/2019							0.41	0.087 (J)
10/15/2019			0.16 (J)					
10/16/2019				0.11 (J)	0.076 (J)		0.39	0.22 (J)
12/3/2019						0.19 (J)		
12/4/2019	0.11 (J)	0.18 (J)						
3/3/2020								
3/4/2020		<0.1	0.07 (J)	<0.1	<0.1		0.14 (J)	0.1 (J)
3/5/2020	<0.1					<0.1		
8/18/2020								
8/19/2020	<0.1	0.19	0.17	0.12				



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-32S	BRGWC-271	BRGWC-251	BRGWC-291	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
8/20/2020					<0.1	<0.1	0.39	0.23
9/15/2020			0.15	0.057 (J)				
9/16/2020	<0.1	0.15			<0.1	0.052 (J)		
9/17/2020							0.46	0.074 (J)
3/1/2021								
3/2/2021			0.15		<0.1	0.067 (J)		
3/3/2021		0.24		0.13				
3/4/2021	<0.1						0.6	0.28
9/21/2021								
9/22/2021								
9/23/2021					<0.1	0.06 (J)		
9/27/2021							0.43	
9/28/2021	<0.1	0.16	0.15	0.081 (J)				0.12
2/1/2022								
2/2/2022	<0.1		0.15		<0.1	<0.1		0.098 (J)
2/3/2022				0.11			0.42	
2/4/2022		0.14						
8/23/2022			0.186		<0.1			
8/24/2022				0.103			0.497	
8/25/2022	0.138	0.234				0.166		0.157
1/24/2023	0.082 (J)							
1/25/2023		0.152				0.163	0.432	0.169
1/26/2023			0.202	0.0935 (J)	0.117			





# Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-50	BRGWC-47	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	5.51	4.62	5.89	6.07				
11/15/2016								
11/16/2016				5.96				
11/17/2016								
11/18/2016	5.53							
11/21/2016		4.44	5.56					
2/20/2017								
2/21/2017	5.63			5.98				
2/22/2017		4.42	5.87					
6/12/2017								
6/13/2017	5.57			5.96				
6/14/2017		4.45	5.83					
9/26/2017								
9/27/2017	5.53	4.33	5.87	5.85				
2/13/2018								
2/14/2018	5.83	4.42	6.01	5.94				
3/15/2018					5.26	5.26		
5/1/2018					6.14	5.38	5.85	
6/26/2018				5.87				
6/27/2018	5.53	4.37	5.83				5.87	
6/28/2018					5.88	5.03		
7/31/2018					6.07			
8/1/2018						5.22	5.79	
8/10/2018								6.28
8/23/2018								6.75
9/19/2018					5.9		5.71	6.48
10/29/2018					5.93	5.19	5.76	6.77
11/28/2018					5.99	5.28	5.74	6.44
12/18/2018		4.38		5.84				
12/19/2018			5.79			5.15	5.8	
12/20/2018	5.78				6.04			6.75
1/16/2019						5.14		
1/17/2019								6.41
2/13/2019								6.42
3/6/2019						6.15		
3/19/2019	5.75						5.89	
3/20/2019		4.4	5.88	6.03	6.1	5.32		6.59
8/27/2019			5.85	6.01				
8/28/2019	5.51	4.39			5.86		5.74	
8/29/2019						5.2		6.27
10/15/2019				6				
10/16/2019		4.79				5.36	5.9	7
10/17/2019	6.01 (D)		6.09		5.93			
3/3/2020								
3/4/2020	5.8	4.5		6.02		5.2	5.76	6.54
3/5/2020			5.74		5.95			
5/12/2020			5.88					
8/18/2020								
8/19/2020	5.81	4.67	5.97	6.32				

# Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-25I	BRGWC-45	BRGWC-50	BRGWC-47	BRGWC-52I
8/20/2020					5.86	5.26	5.75	6.85
9/15/2020		4.53		6				
9/16/2020	5.81		5.79		5.27		5.76	
9/17/2020						4.41		6.12
3/1/2021								
3/2/2021				6.1	6.17		5.59	
3/3/2021	5.9	4.46						
3/4/2021			5.98			4.34		5.87
9/21/2021								
9/22/2021								
9/23/2021					5.95		5.74	
9/27/2021						5.05		
9/28/2021	5.82	4.23	5.82	5.97				6.81
2/1/2022								
2/2/2022			5.99	6.23	5.92		5.75	6.35
2/3/2022		4.23				5.2		
2/4/2022	5.97							
8/23/2022				6.11			5.61	
8/24/2022		4.39				5.01		
8/25/2022	6.03		6.06		5.74			6.21
1/24/2023			6.05					
1/25/2023	5.63				5.82	5.18		6.25
1/26/2023		4.3		6.18			5.65	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	0.81 (J)	2.7	0.38 (J)	7.5					
9/1/2016					2.7	0.6 (J)	1.7		
9/6/2016								310	38
9/8/2016									
11/15/2016	<1 (J)					0.68 (J)			
11/16/2016		3.4	<1 (J)	6.6	3.6		1.2		
11/17/2016									84
11/18/2016									
11/21/2016								300	
2/20/2017	1 (B-01)	3.9 (B-01)				0.98 (J)			
2/21/2017			1.5	6.1	3		1.1		39
2/22/2017								280	
6/12/2017	0.94 (J)	3.7		5		0.54 (J)			
6/13/2017			0.67 (J)				1.1		35
6/14/2017					2.6			290	
9/26/2017	0.92 (J)	4.1	0.62 (J)	5.4	2.5	0.53 (J)	1.3		89
9/27/2017								260	
2/13/2018	<1	6.6	<1	4.7 (J)		<1			
2/14/2018					2.1 (J)		<1	250	82.2
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	0.91 (J)	3.5	0.69 (J)	6.2	2	0.54 (J)	0.84 (J)		84.2
6/27/2018									
6/28/2018								276	
7/31/2018					1.9		0.63 (J)		
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	0.68 (J)	4.3	0.72 (J)	5.9	2.1	0.39 (J)	0.66 (J)	440	83.4
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	0.74 (J)	3	0.78 (J)	6 (D)	2.2	0.68 (J)	0.75 (J)		65
3/20/2019								623	
10/15/2019	0.68 (J)	3.8	0.47 (J)	5.2	1.9	0.48 (J)	0.61 (J)		30
10/16/2019									
12/3/2019									
12/4/2019								327	
3/3/2020	0.71 (J)	2.8	0.93 (J)	7.1	1.8	2.5	0.51 (J)		
3/4/2020									38.6
3/5/2020								369	
9/15/2020	<1	1.7	<1	5.9	1.7	<1	<1		41.5
9/16/2020								334	
9/17/2020									
3/1/2021				4.7		0.74 (J)			
3/2/2021	<1	2.2	<1		1.7		0.51 (J)		54

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWC-30I	BRGWA-23S (bg)
3/3/2021								371	
3/4/2021									
9/21/2021	<1	2.3			1.7		0.51 (J)		
9/22/2021			<1	5.2		<1			34.6
9/23/2021									
9/27/2021									
9/28/2021								612	
2/1/2022	<1	2	<1	5.4	1.4	<1	<1		36.8
2/2/2022								580	
2/3/2022									
2/4/2022									
8/23/2022	0.521	2.21	0.452	5.66	1.84	0.479	0.636		24.4
8/24/2022								935	
8/25/2022									
1/24/2023	0.66	3.34	0.465	3.58	1.8	0.484	0.628		19.7
1/25/2023									
1/26/2023								1030	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	280	300	460	370				
11/15/2016								
11/16/2016								
11/17/2016	200							
11/18/2016		320						
11/21/2016			500	420				
2/20/2017								
2/21/2017	360	270						
2/22/2017			570	380				
6/12/2017								
6/13/2017	290	230						
6/14/2017			440	400				
9/26/2017								
9/27/2017	310	260	380	400				
2/13/2018								
2/14/2018	260	232	280	383				
3/6/2018					111	1560		
3/15/2018							1590	
5/1/2018					112	1465 (D)	1550	
6/26/2018	231							
6/27/2018		205	281	372		1450		
6/28/2018					109		1530	
7/31/2018					107			
8/1/2018						1560	1580	
8/10/2018								183
8/23/2018					108	1470		145
9/19/2018					117	1500		178
10/29/2018					127	1720	1750	157
11/28/2018					133	1730	1780	189
12/18/2018	231		293					
12/19/2018				370		1520	1650	
12/20/2018		200			113			150
1/16/2019							589 (O)	
1/17/2019								157
2/13/2019								169
3/19/2019		199				1100		
3/20/2019	235 (D)		278	409	127		1740	186.5 (D)
10/15/2019	174							
10/16/2019			266			1560	1590	155
12/3/2019					105			
12/4/2019		241		293				
3/3/2020								
3/4/2020	165	205	238			1380	1370	129
3/5/2020				269	106			
9/15/2020	126		241					
9/16/2020		190		255	103	1360		
9/17/2020							1330	165
3/1/2021								
3/2/2021	139				98.3	1360		



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
3/3/2021		172	341					
3/4/2021				185			1250	114
9/21/2021								
9/22/2021								
9/23/2021					97.5	1240		
9/27/2021							1180	
9/28/2021	112	137	250	189				132
2/1/2022								
2/2/2022	117			210	90.1	1170		126
2/3/2022			274				1270	
2/4/2022		172						
8/23/2022	158					1410		
8/24/2022			298				1400	
8/25/2022		176		254	114			142
1/24/2023				247				
1/25/2023		150			102		1290	145
1/26/2023	182		293			1310		

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-12I (bg)	BRGWA-12S (bg)	BRGWA-6S (bg)	BRGWA-23S (bg)	BRGWC-30I
8/31/2016	154	138	88	151					
9/1/2016					142	69	299		
9/6/2016								146	505
9/8/2016									
11/15/2016	123						41		
11/16/2016		77	41	69	100	100			
11/17/2016								211	
11/18/2016									
11/21/2016									515
2/20/2017	158	170					133		
2/21/2017			<10	68	71	37		151	
2/22/2017									504
6/12/2017	142	132		161			61		
6/13/2017			53			84		130	
6/14/2017					140				536
9/26/2017	138	108	45	167	149	68	29	160	
9/27/2017									432
2/13/2018	150	141	63	165			61		
2/14/2018					137	138		194	448
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	154	133	71	188	142	90	71	221	
6/27/2018									
6/28/2018									494
7/31/2018					133	83			
8/1/2018									
8/10/2018									
8/23/2018									
9/19/2018									
10/29/2018									
11/28/2018									
12/18/2018	147	138 (X)	78 (X)	145 (X)	135	85	70 (X)	208	715
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	146	130	68	146.5 (D)	132 (JX)	82 (JX)	72	161 (JX)	
3/20/2019									885
10/15/2019	144	175	66	140	134	89	63	124	
10/16/2019									
12/3/2019									
12/4/2019									612
3/3/2020	130	<10	41	155	115	72	54		
3/4/2020								118	
3/5/2020									681
9/15/2020	116	100	69	116	95	60	79	109	
9/16/2020									634
9/17/2020									
3/1/2021				98			39		
3/2/2021	96	80	43		93	43		105	



# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-25I	BRGWC-29I	BRGWC-32S	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	478	460	654	607				
11/15/2016								
11/16/2016								
11/17/2016		611						
11/18/2016	503							
11/21/2016			819	695				
2/20/2017								
2/21/2017	380	497						
2/22/2017			721	635				
6/12/2017								
6/13/2017	354	474						
6/14/2017			661	635				
9/26/2017								
9/27/2017	376	457	518	601				
2/13/2018								
2/14/2018	503 (JX)	431	487	628				
3/6/2018					2200	346		
3/15/2018							2440	
5/1/2018					2080 (D)	374	2190	
6/26/2018		414						
6/27/2018	458 (X)		648 (X)	2280	31 (OX)			
6/28/2018						333	2290	
7/31/2018						393		
8/1/2018					2190		2360	
8/10/2018								344
8/23/2018					2160	350		333
9/19/2018					2160	353		364
10/29/2018					2130	329	2300	334
11/28/2018					2320	358	2300	357
12/18/2018		401	407					
12/19/2018				605	2060		2190	
12/20/2018	344					322		355
1/16/2019							2270	
1/17/2019								347
2/13/2019								350
3/19/2019	334 (JX)				2050 (JX)			
3/20/2019		410.5 (D)	391	564		302	2280	360 (D)
10/15/2019		380						
10/16/2019			2030		2220		2280	346
12/3/2019						362		
12/4/2019	422			526				
3/3/2020								
3/4/2020	326	330	391		2140		2270	351
3/5/2020				489		297		
9/15/2020		272	281					
9/16/2020	301			428	2090	275		
9/17/2020							1910	329
3/1/2021								
3/2/2021		280			1680	264		

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/27/2023 3:47 PM View: Pond BCD - Appendix III

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-25I	BRGWC-29I	BRGWC-32S	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
3/3/2021	288		515					
3/4/2021				350			1520	383
9/21/2021								
9/22/2021								
9/23/2021					1770	277		
9/27/2021							1800	
9/28/2021	262	270	457	375				336
2/1/2022								
2/2/2022		283		443	1850	276		160
2/3/2022			419				1850	
2/4/2022	301							
8/23/2022		315			2060			
8/24/2022			383				1990	
8/25/2022	311			437		248		296
1/24/2023				425				
1/25/2023	260					251	2040	276
1/26/2023		339	419		2010			

FIGURE E.

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:54 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-27I	-0.1068	-74	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-29I	-0.1199	-77	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-23S (bg)	-1.254	-75	-63	Yes	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-25I	-4.496	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-27I	-3.798	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-30I	30.91	113	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-45	-2.192	-74	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-12I (bg)	-0.1919	-99	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-23S (bg)	-0.1862	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.16	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-25I	-0.5341	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-45	-8.069	-89	-68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-50	-2.127	-94	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-52I	-0.3178	-74	-63	Yes	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-23S (bg)	-0.03505	-75	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.08596	-87	-74	Yes	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2S (bg)	-0.04386	-89	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12I (bg)	-0.2108	-113	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12S (bg)	-0.126	-88	-68	Yes	18	16.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-25I	-31.53	-83	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-27I	-21.15	-104	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-30I	60.14	76	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-32S	-30.5	-84	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-23S (bg)	-10.83	-69	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-25I	-41.9	-100	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-27I	-25.83	-94	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-29I	-53.93	-68	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-30I	115.2	90	63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-32S	-44.27	-93	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-45	-25.56	-99	-68	Yes	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-47	-51.51	-64	-63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-50	-90.66	-74	-63	Yes	17	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 2/27/2023, 3:54 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-12I (bg)	-0.00006578	-7	-63	No	17	17.65	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-12S (bg)	0	-7	-63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-23S (bg)	0.002257	25	63	No	17	11.76	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2I (bg)	0.0003815	30	63	No	17	29.41	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	-1	-63	No	17	88.24	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	-4	-63	No	17	76.47	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-25I	-0.07373	-49	-63	No	17	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-27I</b>	<b>-0.1068</b>	<b>-74</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>BRGWC-29I</b>	<b>-0.1199</b>	<b>-77</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-30I	0.04094	31	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-32S	-0.05402	-48	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-47	0.02765	59	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-50	0.008291	29	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-52I	0.03944	30	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12I (bg)	-0.2348	-12	-68	No	18	5.556	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12S (bg)	0.1273	28	68	No	18	5.556	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-1.254</b>	<b>-75</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>5.882</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWA-2I (bg)	0.4268	41	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0.111	46	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	0.1199	19	63	No	17	5.882	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-25I</b>	<b>-4.496</b>	<b>-84</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BRGWC-27I</b>	<b>-3.798</b>	<b>-76</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-29I	-5.819	-52	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-30I</b>	<b>30.91</b>	<b>113</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-32S	-3.741	-60	-63	No	17	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-45</b>	<b>-2.192</b>	<b>-74</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-47	0.2435	4	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-50	-6.589	-50	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-52I	-0.03805	0	58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.1919</b>	<b>-99</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-12S (bg)	0.06545	54	68	No	18	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.1862</b>	<b>-76</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BRGWA-2I (bg)	-0.03727	-34	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	0	-9	-63	No	17	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-5I (bg)</b>	<b>-0.16</b>	<b>-71</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-25I</b>	<b>-0.5341</b>	<b>-71</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-45</b>	<b>-8.069</b>	<b>-89</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-50</b>	<b>-2.127</b>	<b>-94</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BRGWC-52I</b>	<b>-0.3178</b>	<b>-74</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	BRGWA-12I (bg)	-0.008595	-35	-74	No	19	21.05	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-12S (bg)	0	63	74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-23S (bg)	0	6	74	No	19	52.63	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-16	-74	No	19	52.63	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	56	74	No	19	63.16	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	72	74	No	19	68.42	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-50	-0.06988	-28	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12I (bg)	-0.02367	-36	-87	No	21	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12S (bg)	-0.01755	-49	-81	No	20	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.03505</b>	<b>-75</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.08596</b>	<b>-87</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>pH, Field (S.U.)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.04386</b>	<b>-89</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02414	-43	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-29I	-0.01955	-32	-74	No	19	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-50	-0.04142	-52	-81	No	20	0	n/a	n/a	0.01	NP



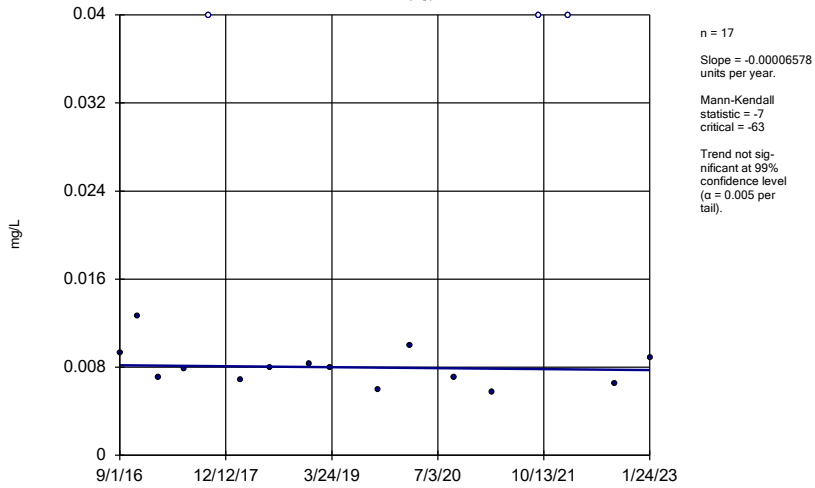
# Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 2/27/2023, 3:54 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Sulfate (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2108</b>	<b>-113</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>-0.126</b>	<b>-88</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>16.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWA-23S (bg)	-6.651	-58	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.2241	-48	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	5	63	No	17	35.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.2579	-48	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-25I</b>	<b>-31.53</b>	<b>-83</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-27I</b>	<b>-21.15</b>	<b>-104</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-29I	-26.89	-61	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-30I</b>	<b>60.14</b>	<b>76</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-32S</b>	<b>-30.5</b>	<b>-84</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-45	-3.401	-56	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-47	-55.67	-61	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-50	-91.94	-53	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-52I	-8.859	-54	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12I (bg)	-5.117	-61	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12S (bg)	-5.699	-57	-68	No	18	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWA-23S (bg)</b>	<b>-10.83</b>	<b>-69</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-7.505	-40	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.6809	10	63	No	17	5.882	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-3.081	-32	-63	No	17	5.882	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-25I</b>	<b>-41.9</b>	<b>-100</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-27I</b>	<b>-25.83</b>	<b>-94</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-29I</b>	<b>-53.93</b>	<b>-68</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-30I</b>	<b>115.2</b>	<b>90</b>	<b>63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>-44.27</b>	<b>-93</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-45</b>	<b>-25.56</b>	<b>-99</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-47</b>	<b>-51.51</b>	<b>-64</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>-90.66</b>	<b>-74</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids (mg/L)	BRGWC-52I	-9.523	-38	-63	No	17	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

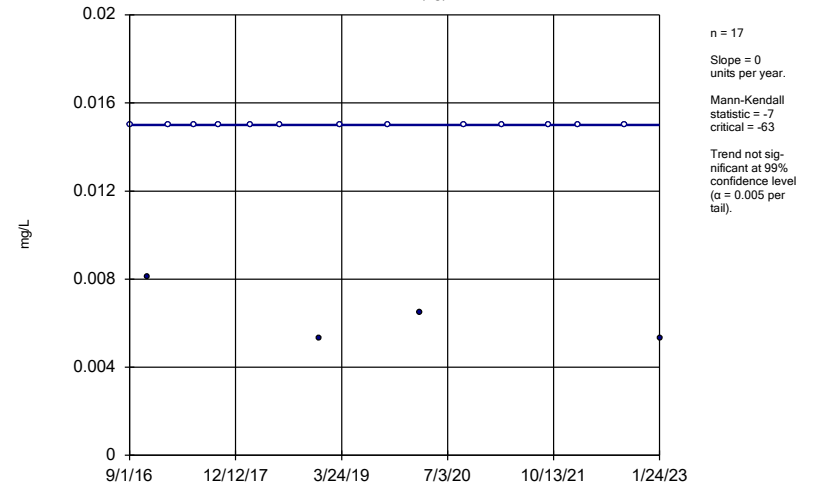
BRGWA-12I (bg)



Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

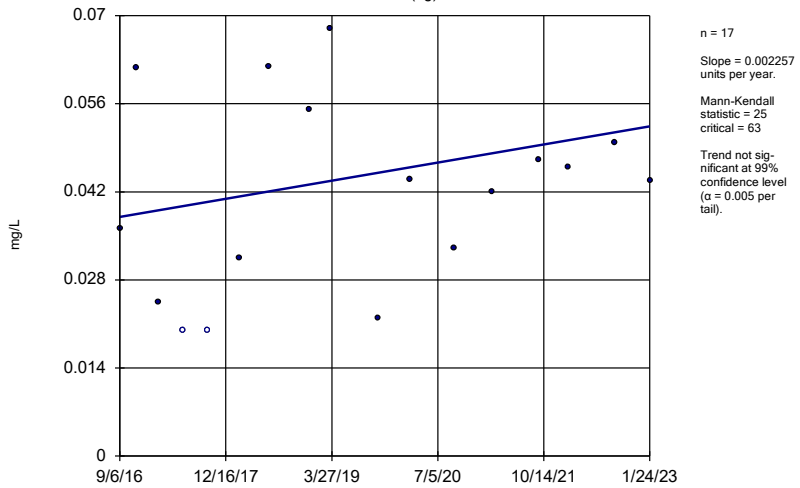
BRGWA-12S (bg)



Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

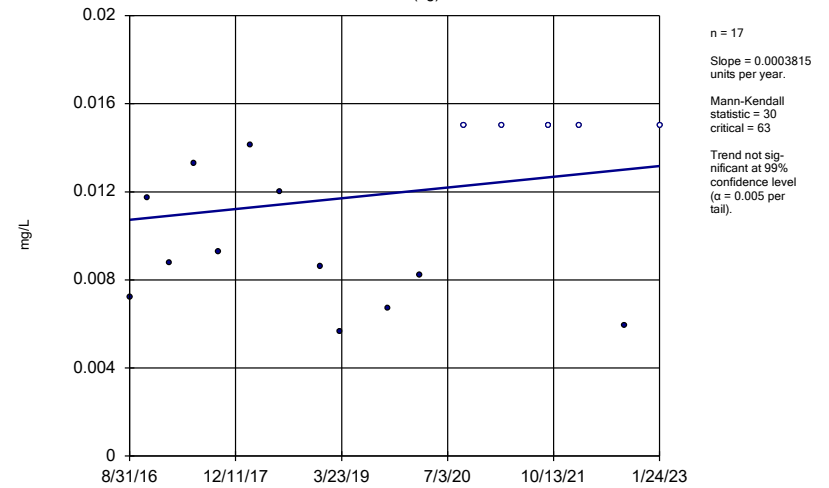
BRGWA-23S (bg)



Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

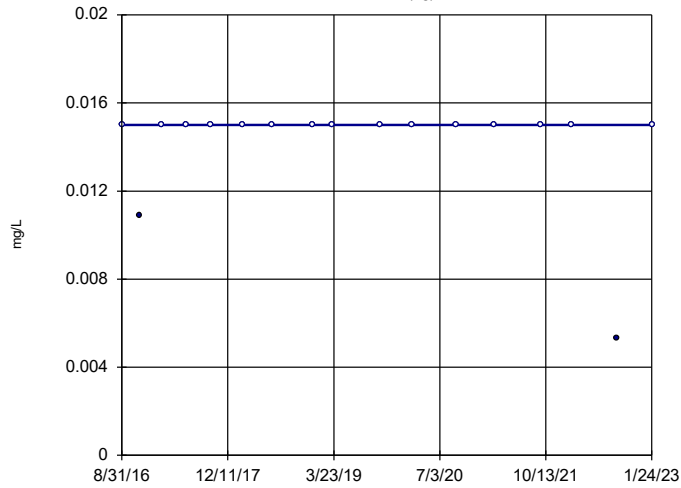
BRGWA-2I (bg)



Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

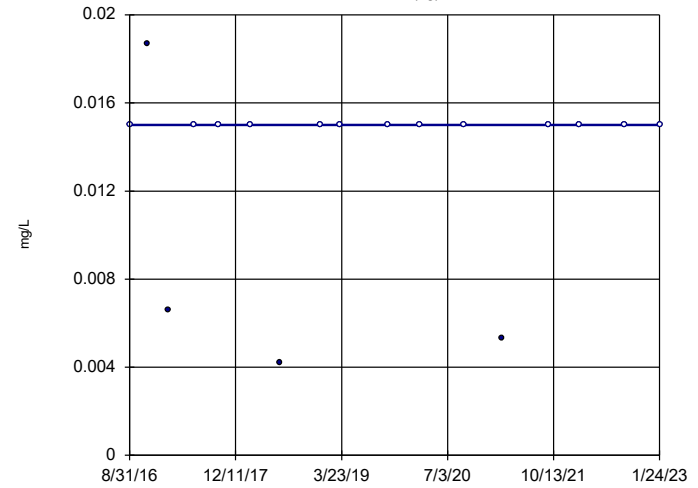


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -1  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

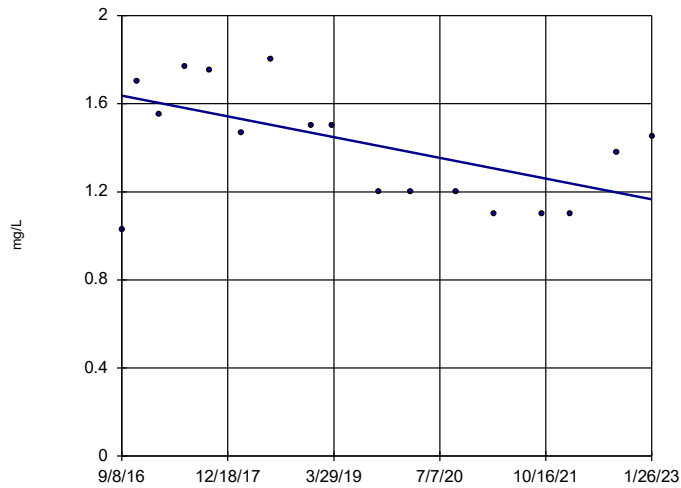


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -4  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-25I

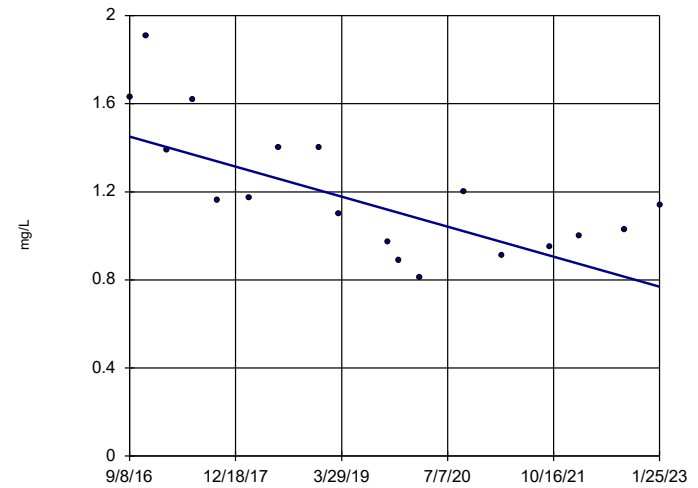


n = 17  
Slope = -0.07373  
units per year.  
Mann-Kendall  
statistic = -49  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-27I

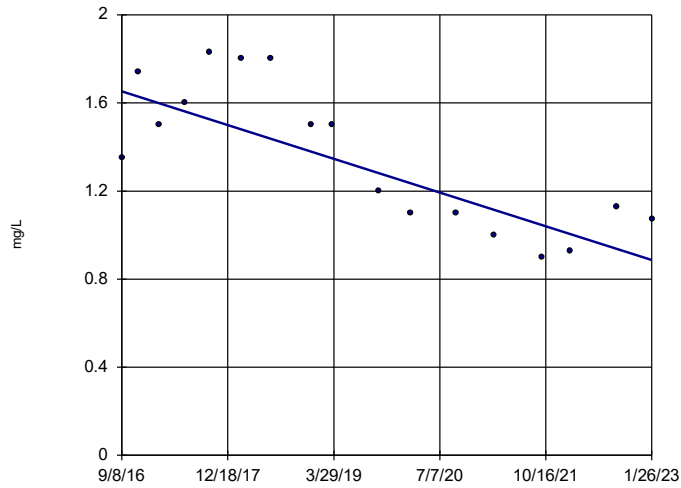


n = 18  
Slope = -0.1068  
units per year.  
Mann-Kendall  
statistic = -74  
critical = -68  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-29I

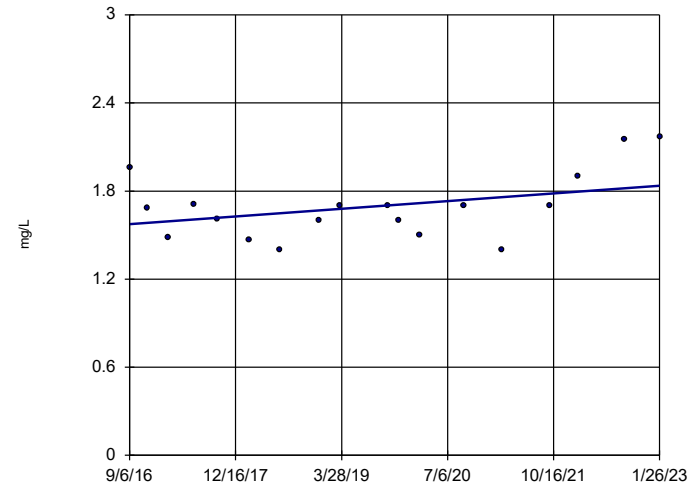


n = 17  
 Slope = -0.1199  
 units per year.  
 Mann-Kendall  
 statistic = -77  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-30I

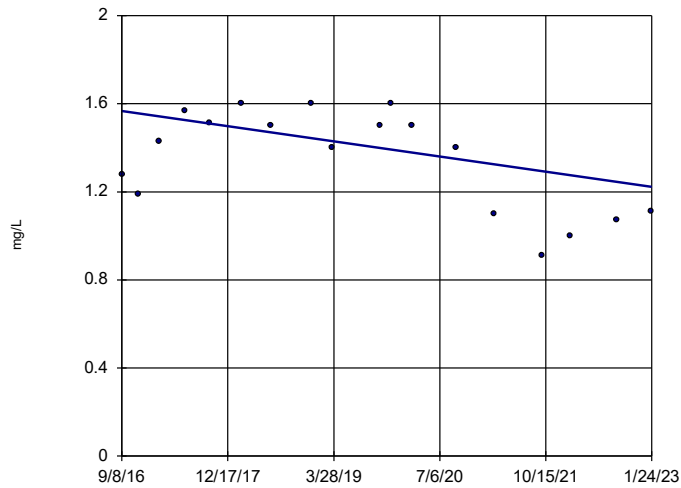


n = 18  
 Slope = 0.04094  
 units per year.  
 Mann-Kendall  
 statistic = 31  
 critical = 68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-32S

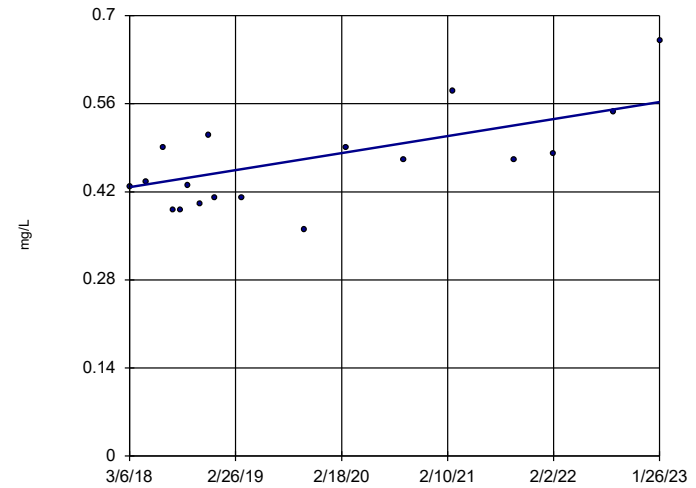


n = 18  
 Slope = -0.05402  
 units per year.  
 Mann-Kendall  
 statistic = -48  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-47

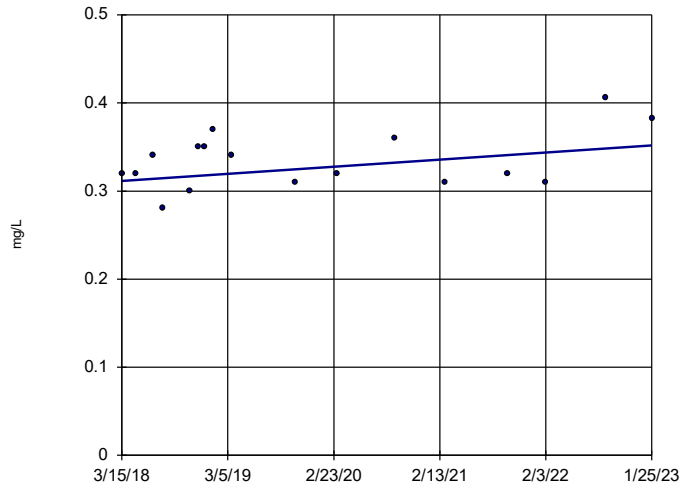


n = 18  
 Slope = 0.02765  
 units per year.  
 Mann-Kendall  
 statistic = 59  
 critical = 68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

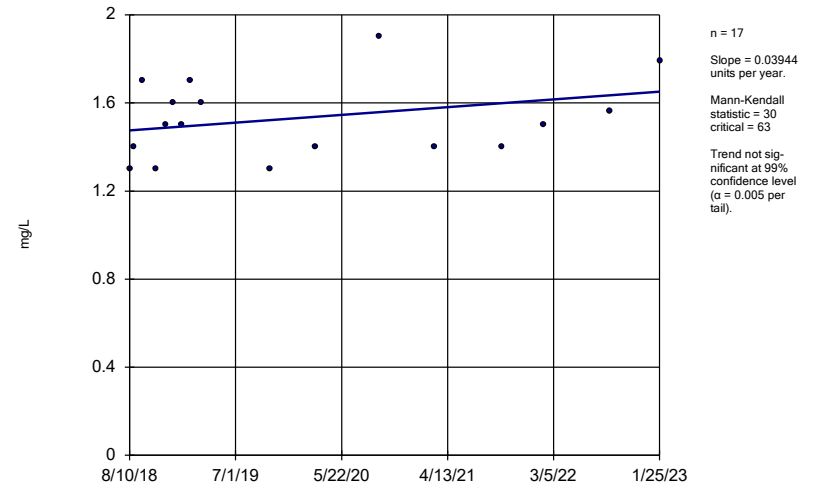
BRGWC-50



Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

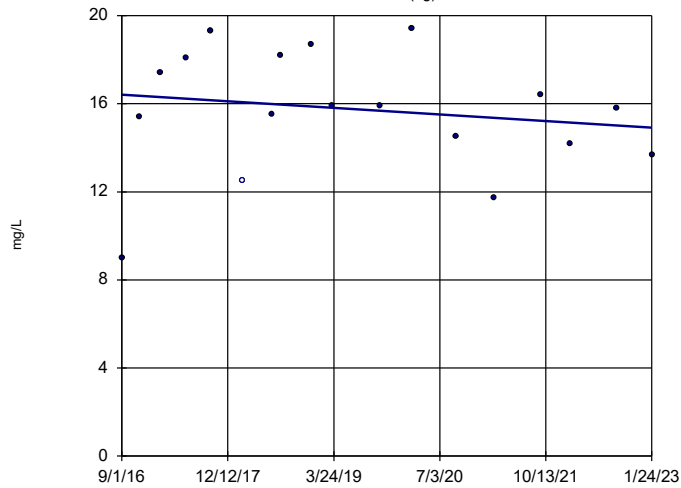
BRGWC-52I



Constituent: Boron Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

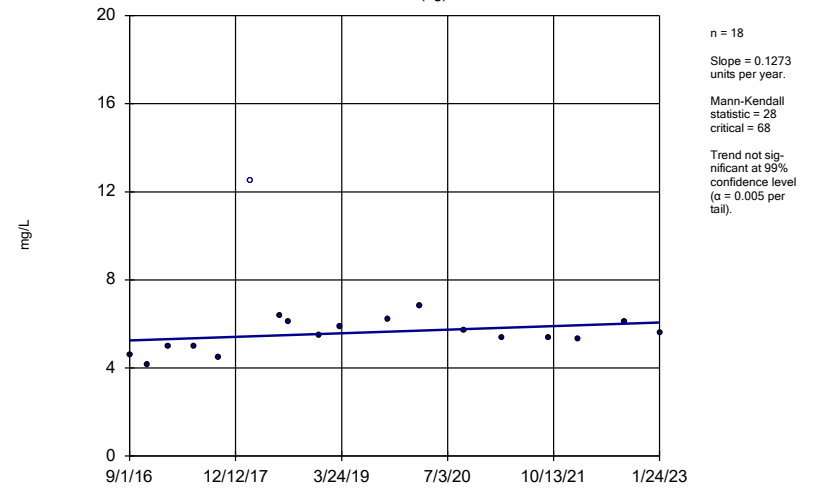
BRGWA-12I (bg)



Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

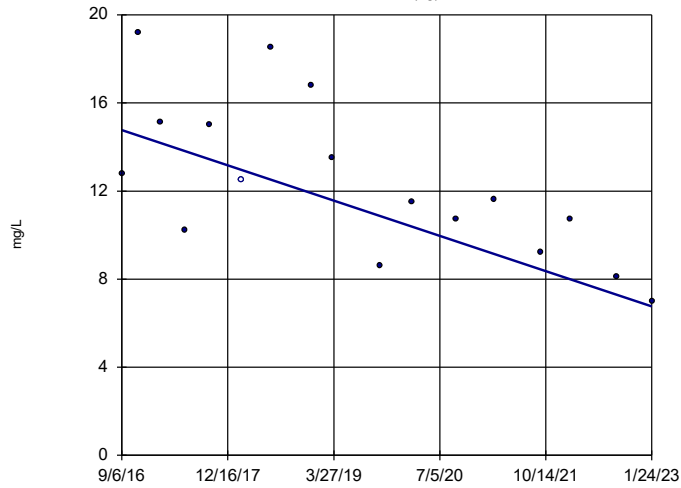
BRGWA-12S (bg)



Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

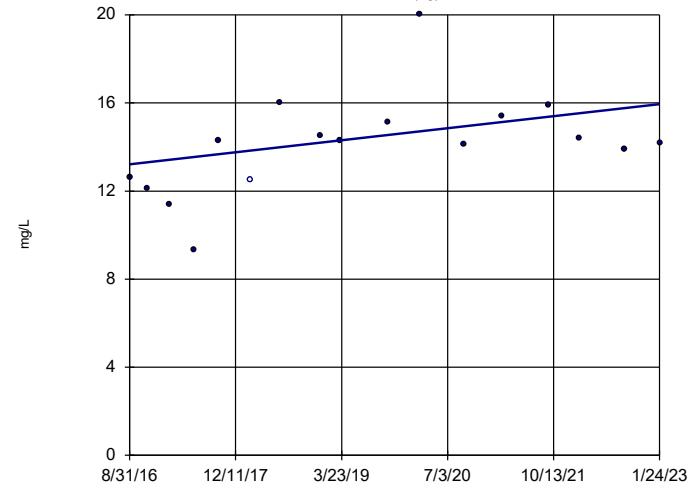


n = 17  
Slope = -1.254  
units per year.  
Mann-Kendall  
statistic = -75  
critical = -63  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

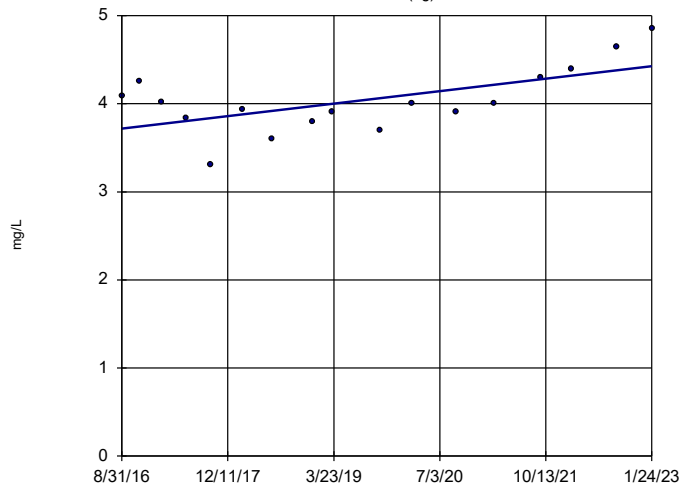


n = 17  
Slope = 0.4268  
units per year.  
Mann-Kendall  
statistic = 41  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

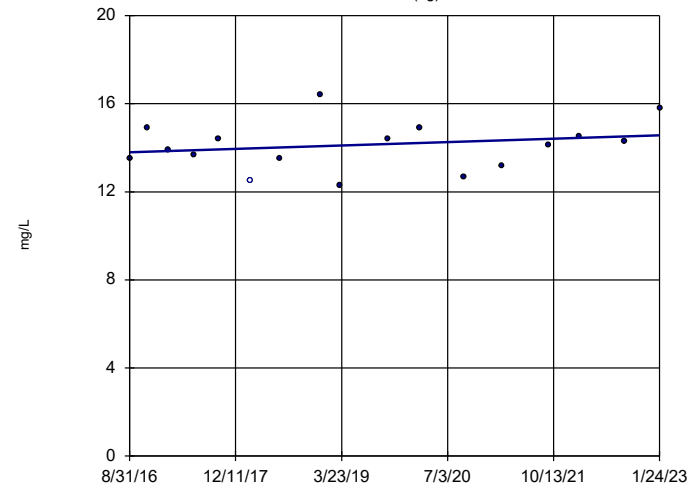


n = 17  
Slope = 0.111  
units per year.  
Mann-Kendall  
statistic = 46  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

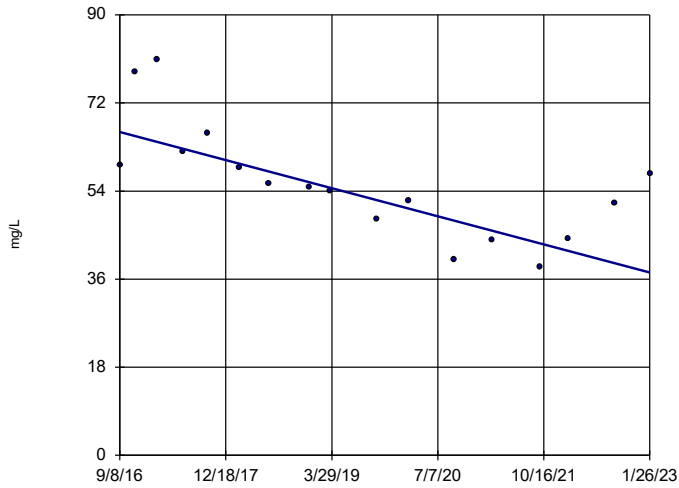


n = 17  
Slope = 0.1199  
units per year.  
Mann-Kendall  
statistic = 19  
critical = 63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-25I

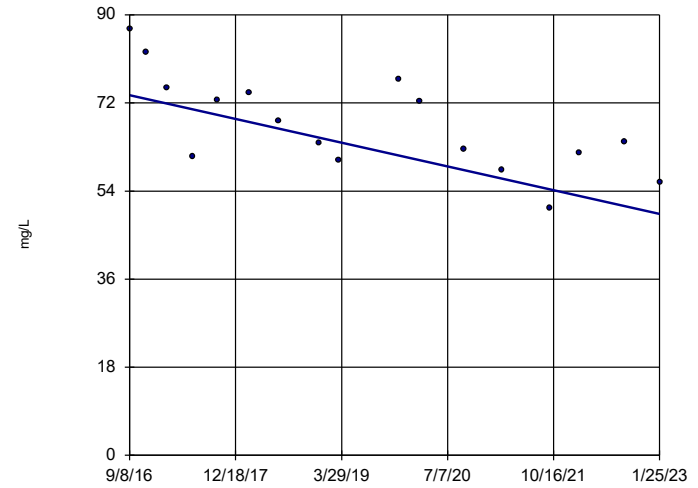


n = 17  
 Slope = -4.496  
 units per year.  
 Mann-Kendall  
 statistic = -84  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-27I

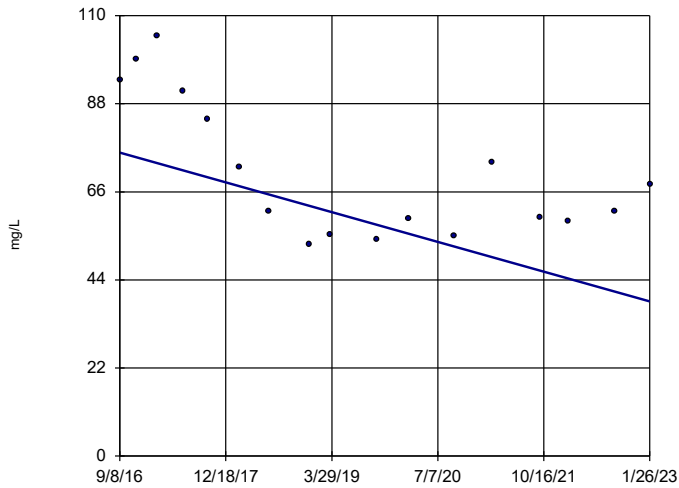


n = 17  
 Slope = -3.798  
 units per year.  
 Mann-Kendall  
 statistic = -76  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-29I

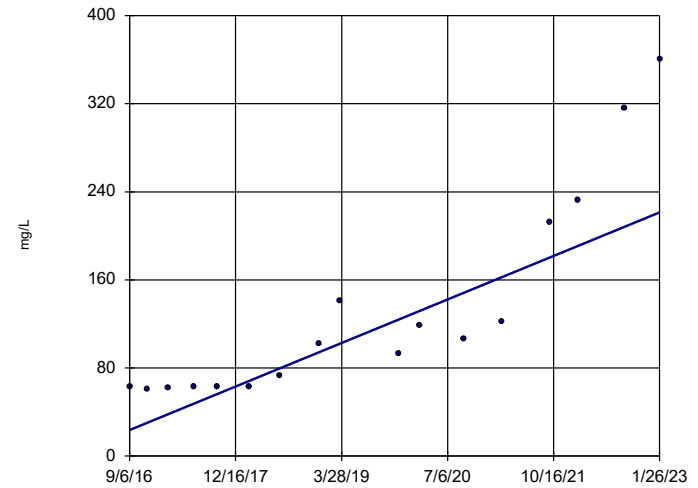


n = 17  
 Slope = -5.819  
 units per year.  
 Mann-Kendall  
 statistic = -52  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-30I

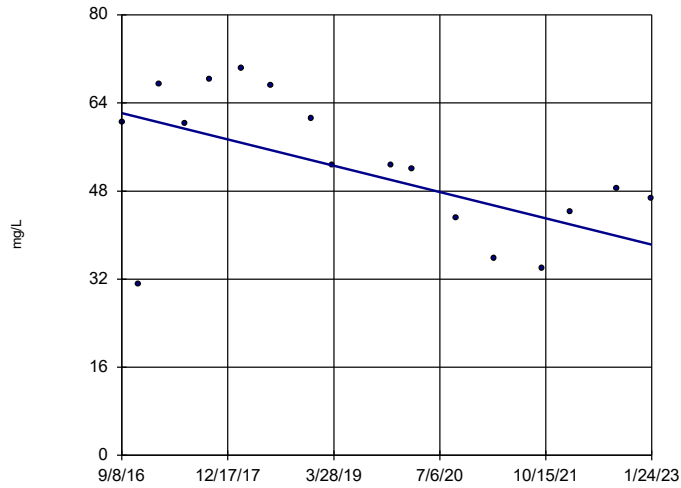


n = 17  
 Slope = 30.91  
 units per year.  
 Mann-Kendall  
 statistic = 113  
 critical = 63  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-32S

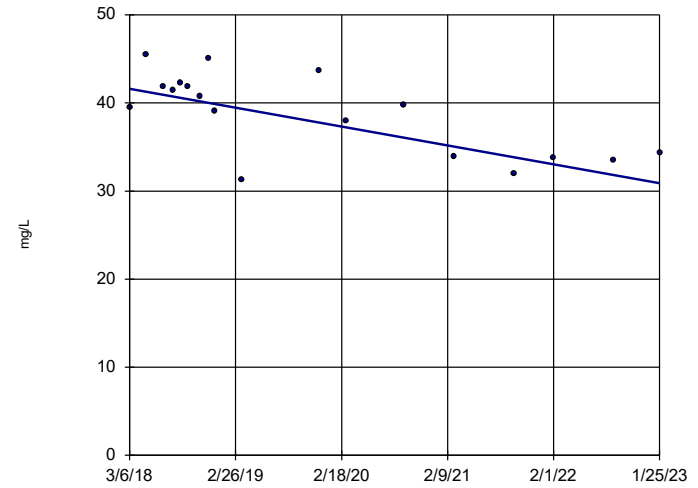


n = 17  
 Slope = -3.741 units per year.  
 Mann-Kendall statistic = -60  
 critical = -63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-45

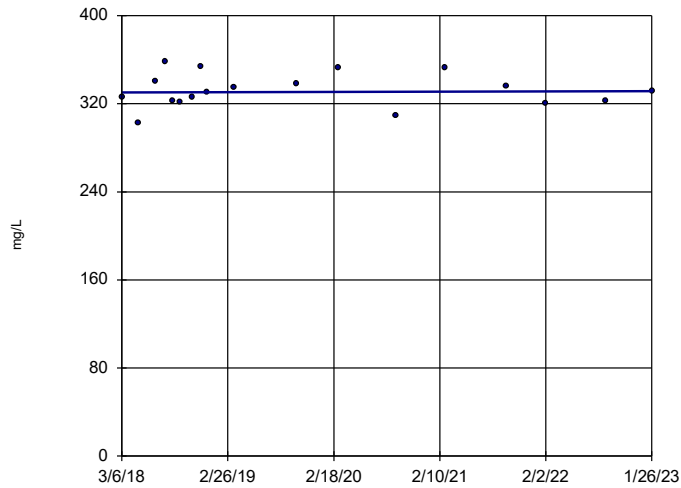


n = 18  
 Slope = -2.192 units per year.  
 Mann-Kendall statistic = -74  
 critical = -68  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-47

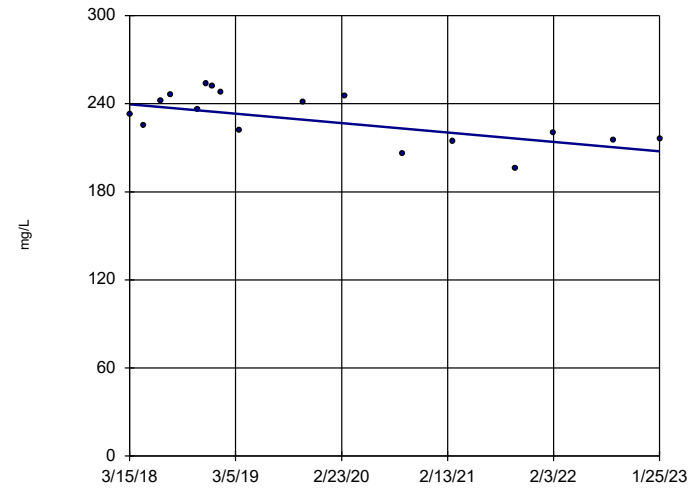


n = 18  
 Slope = 0.2435 units per year.  
 Mann-Kendall statistic = 4  
 critical = 68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50



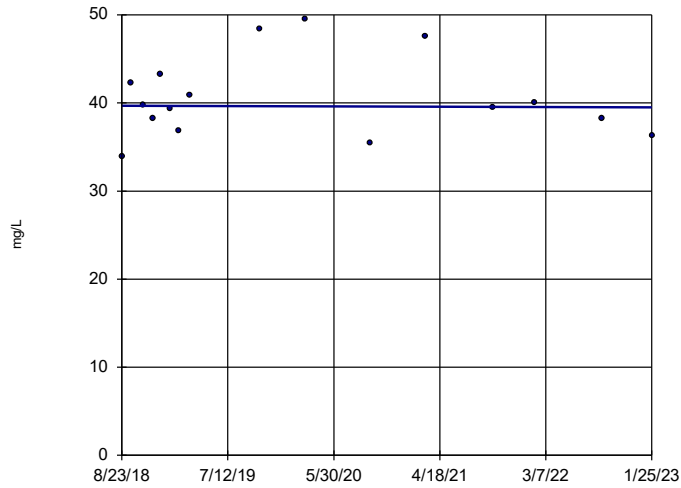
n = 17  
 Slope = -6.589 units per year.  
 Mann-Kendall statistic = -50  
 critical = -63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWC-521

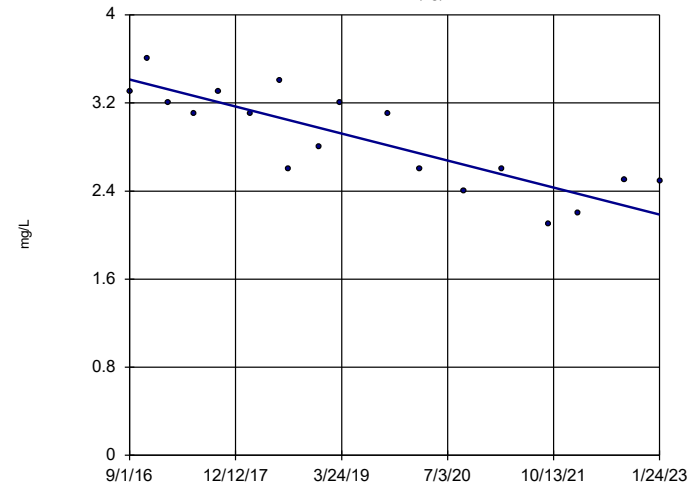


n = 16  
 Slope = -0.03805 units per year.  
 Mann-Kendall statistic = 0  
 critical = 58  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-121 (bg)

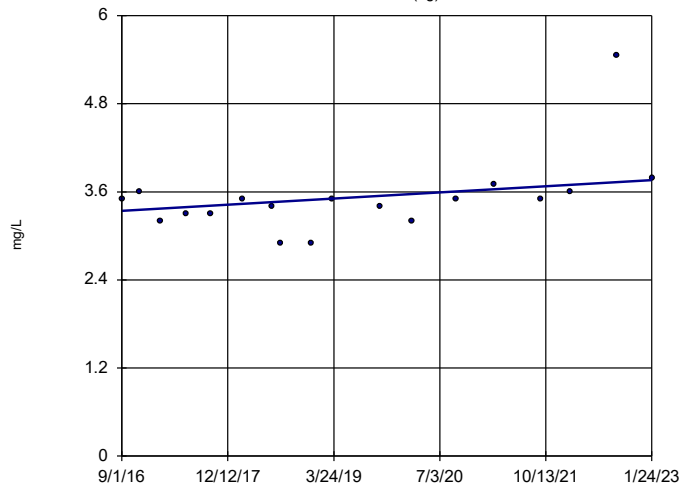


n = 18  
 Slope = -0.1919 units per year.  
 Mann-Kendall statistic = -99  
 critical = -68  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

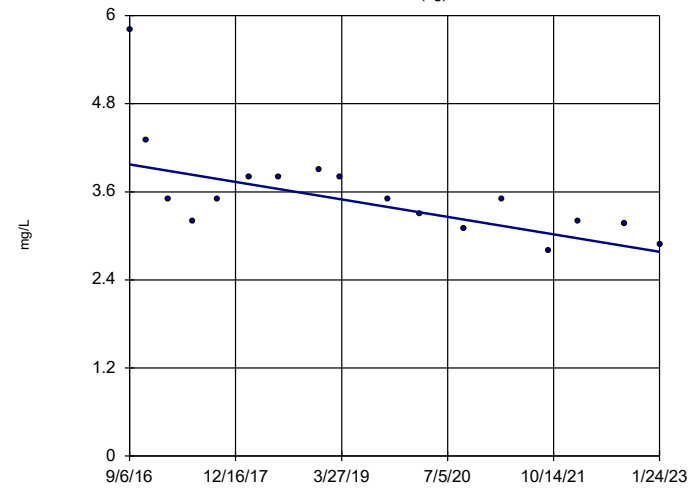


n = 18  
 Slope = 0.06545 units per year.  
 Mann-Kendall statistic = 54  
 critical = 68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

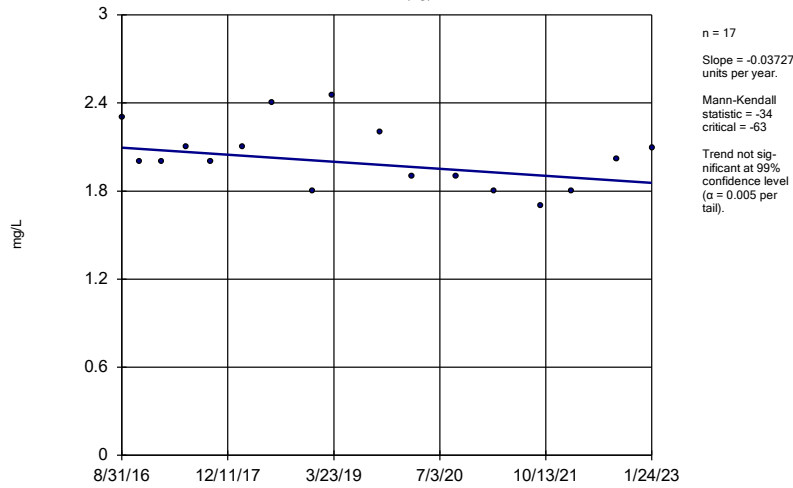


n = 17  
 Slope = -0.1862 units per year.  
 Mann-Kendall statistic = -76  
 critical = -63  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

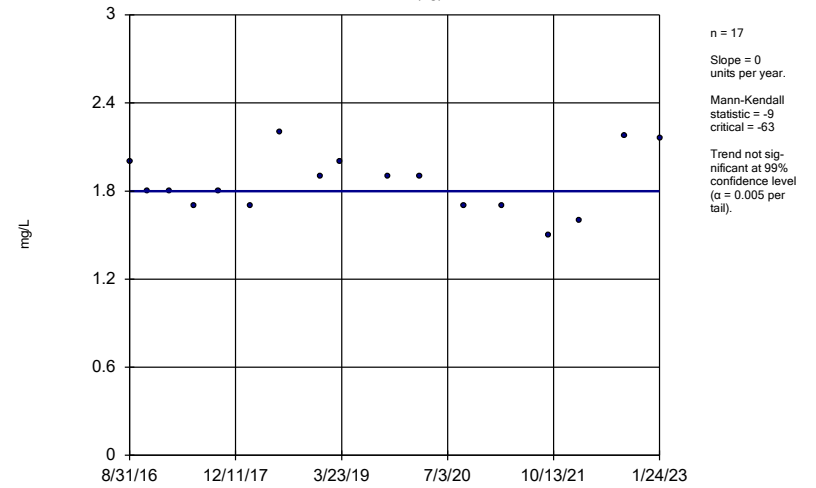
BRGWA-2I (bg)



Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

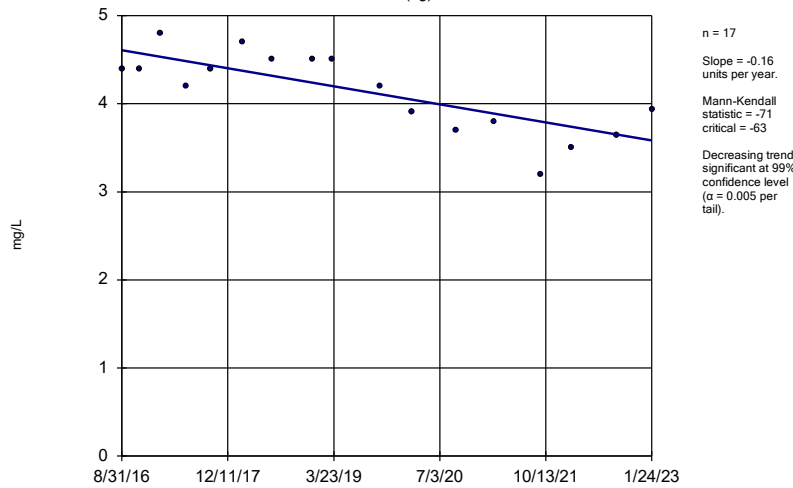
BRGWA-2S (bg)



Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

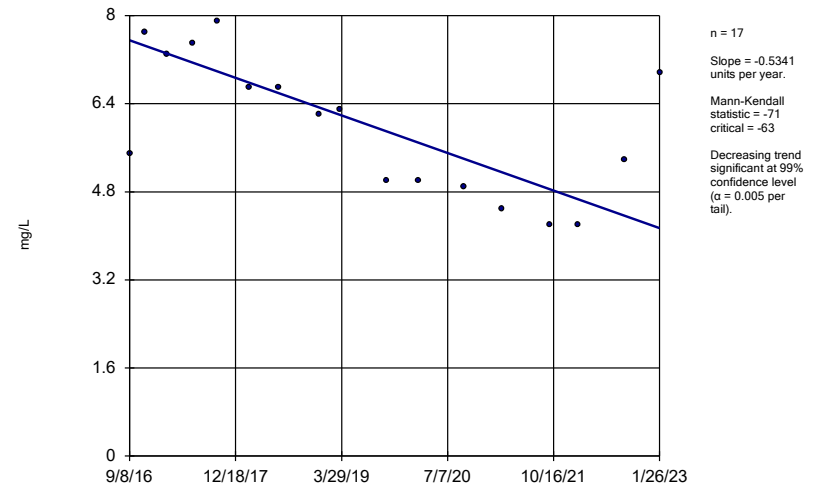
BRGWA-5I (bg)



Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

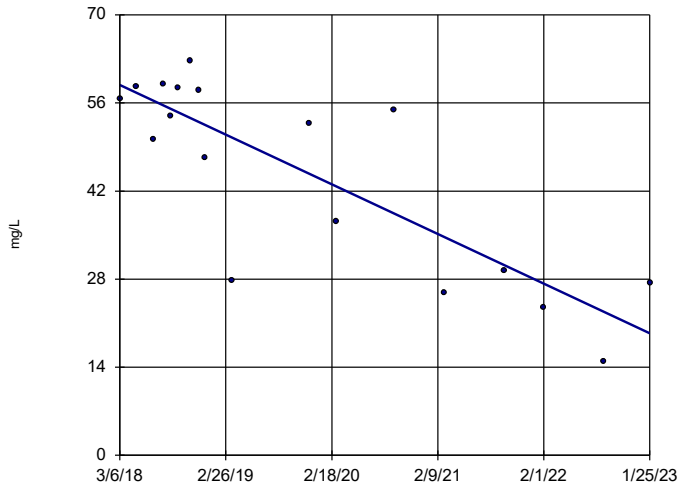
BRGWC-25I



Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-45

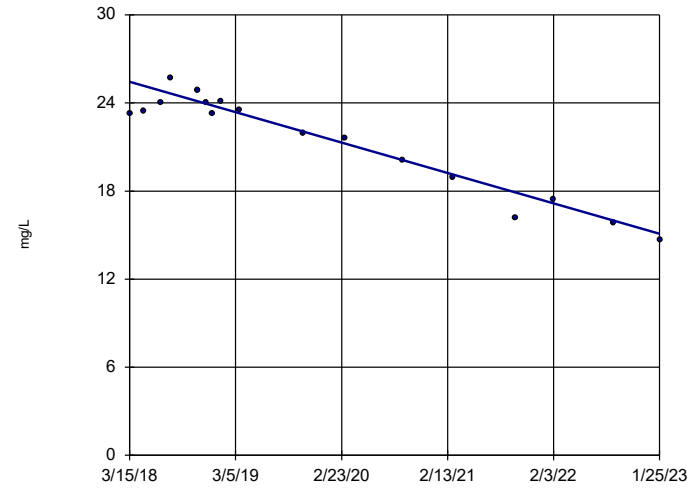


n = 18  
 Slope = -8.069  
 units per year.  
 Mann-Kendall  
 statistic = -89  
 critical = -68  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-50

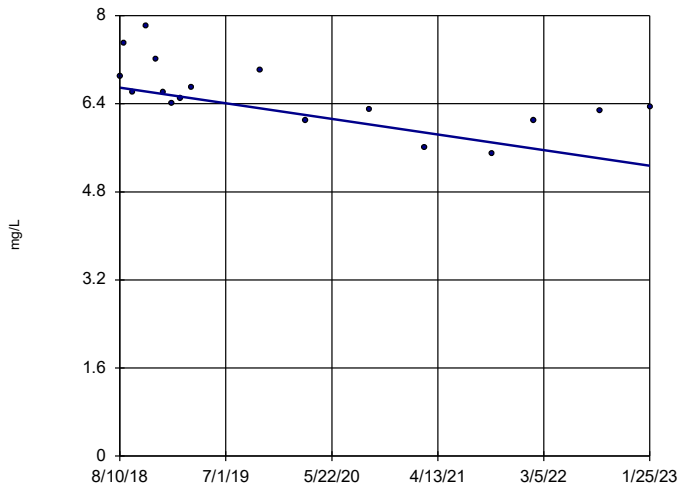


n = 17  
 Slope = -2.127  
 units per year.  
 Mann-Kendall  
 statistic = -94  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-52I

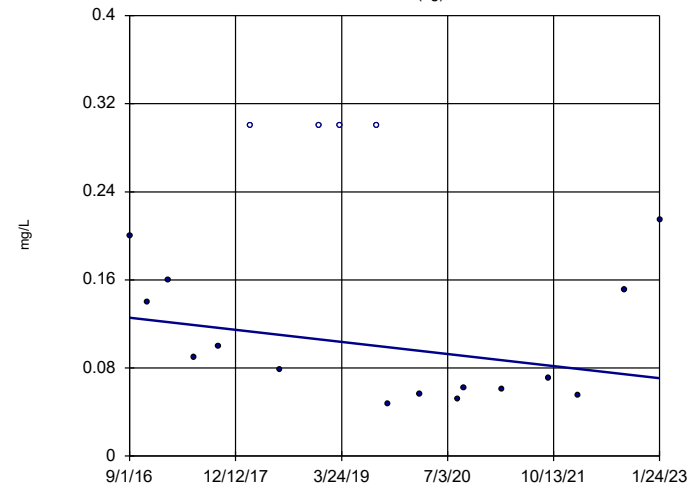


n = 17  
 Slope = -0.3178  
 units per year.  
 Mann-Kendall  
 statistic = -74  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-12I (bg)

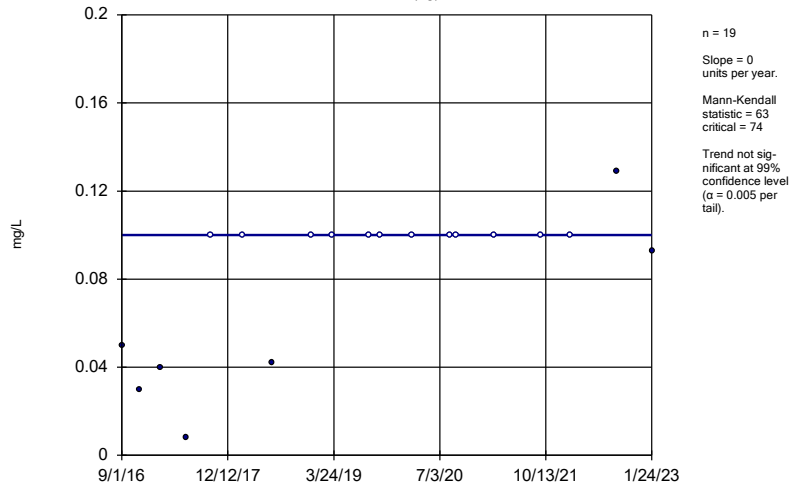


n = 19  
 Slope = -0.008595  
 units per year.  
 Mann-Kendall  
 statistic = -35  
 critical = -74  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

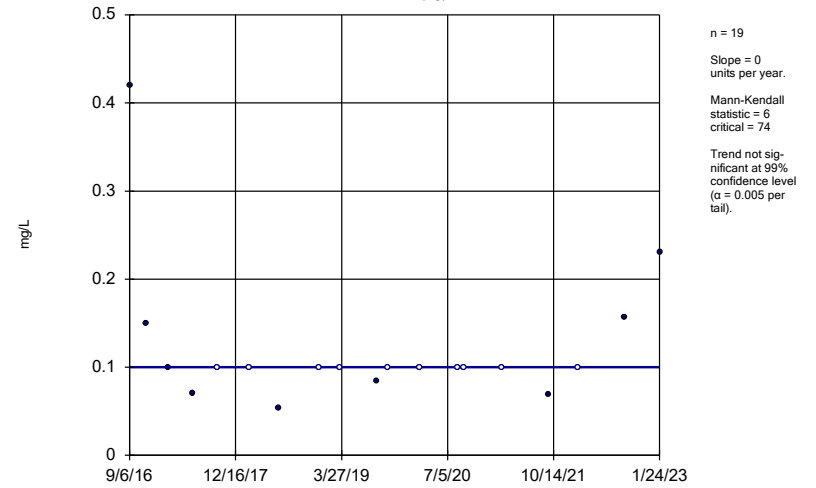
BRGWA-12S (bg)



Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

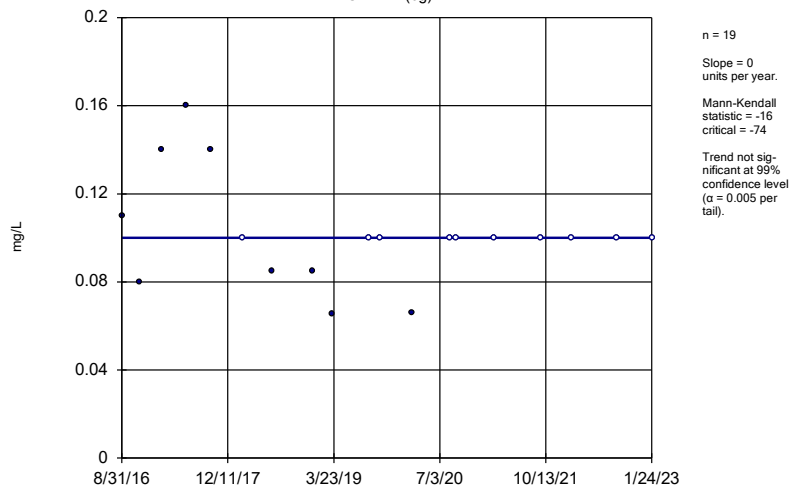
BRGWA-23S (bg)



Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

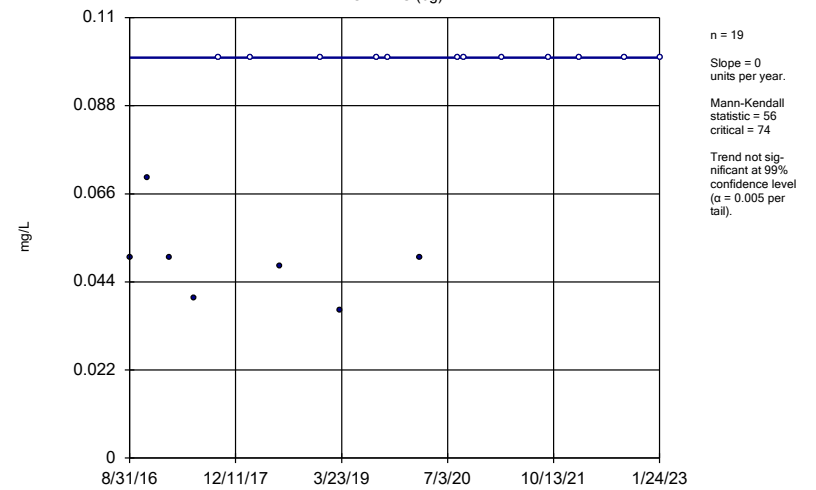
BRGWA-2I (bg)



Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

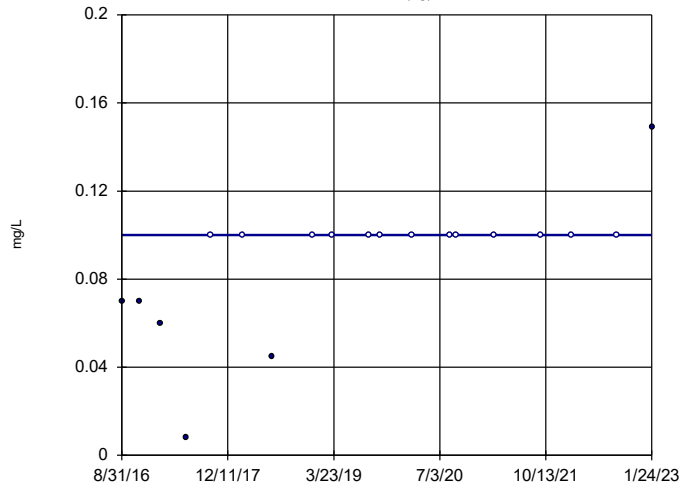
BRGWA-2S (bg)



Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

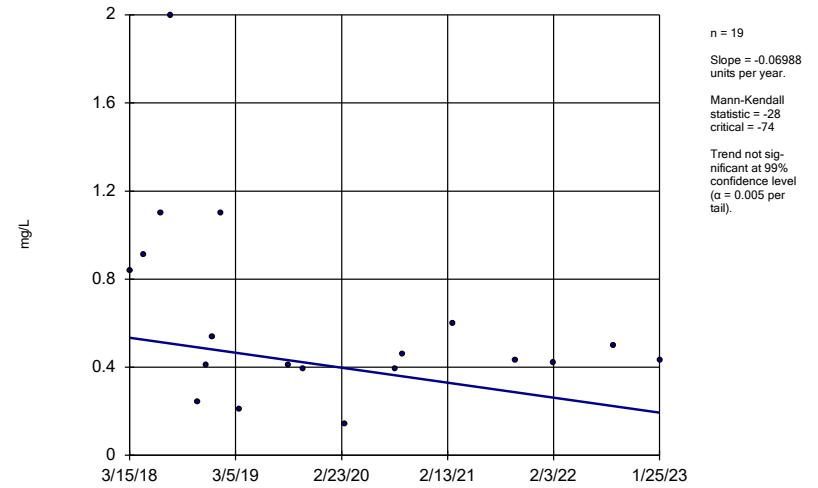
BRGWA-51 (bg)



Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

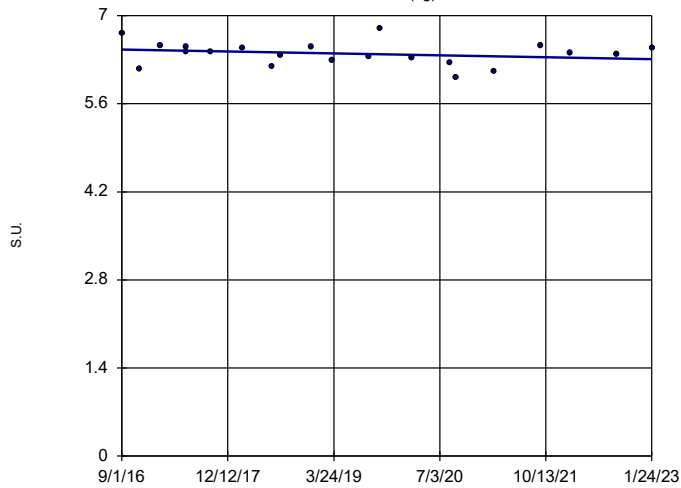
BRGWC-50



Constituent: Fluoride Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

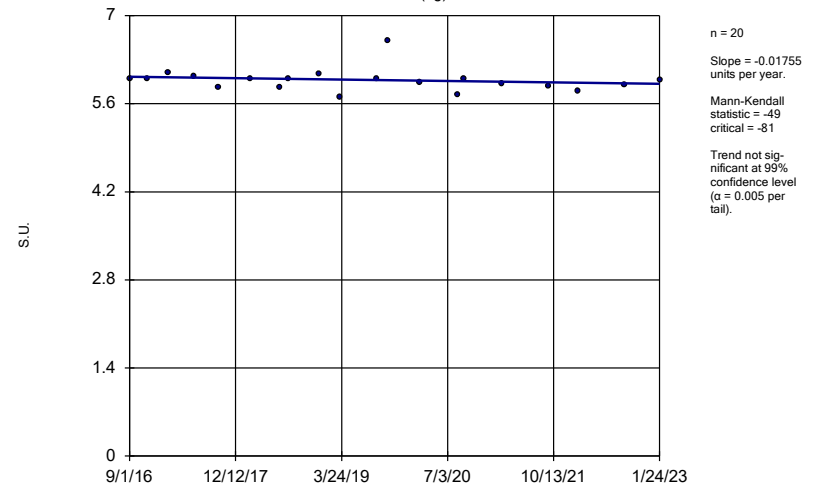
BRGWA-12I (bg)



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

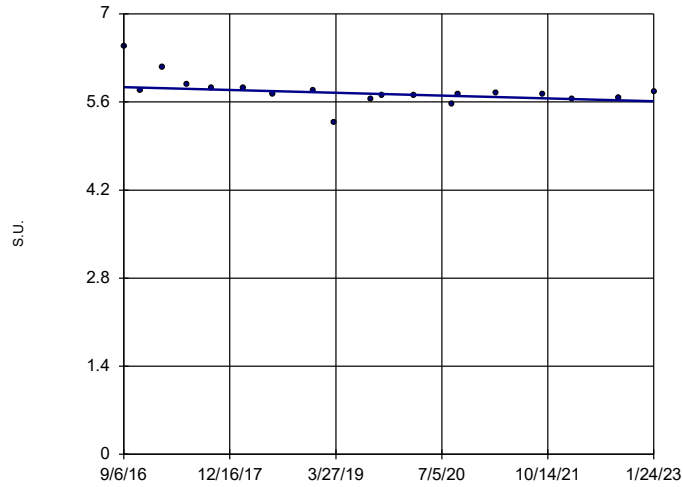
BRGWA-12S (bg)



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

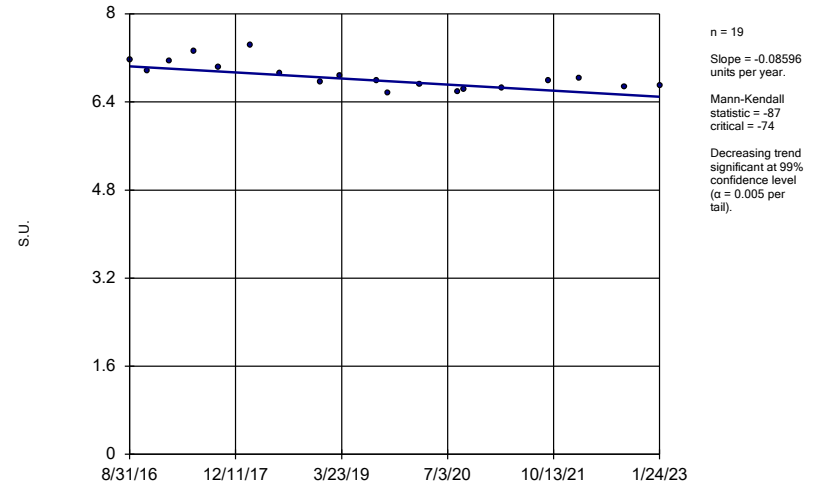
BRGWA-23S (bg)



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

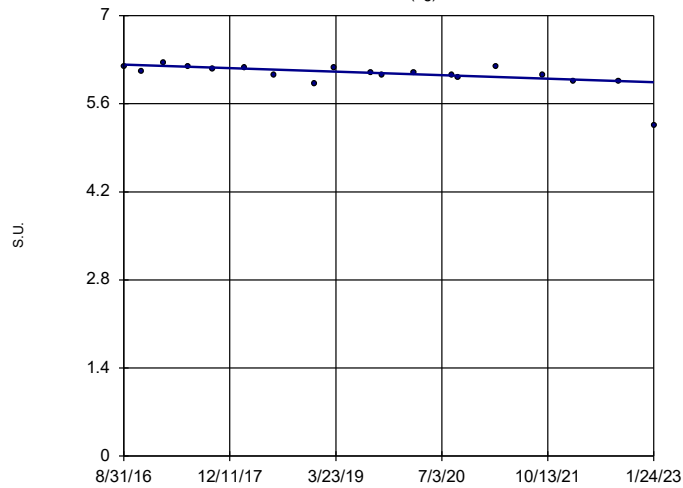
BRGWA-2I (bg)



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

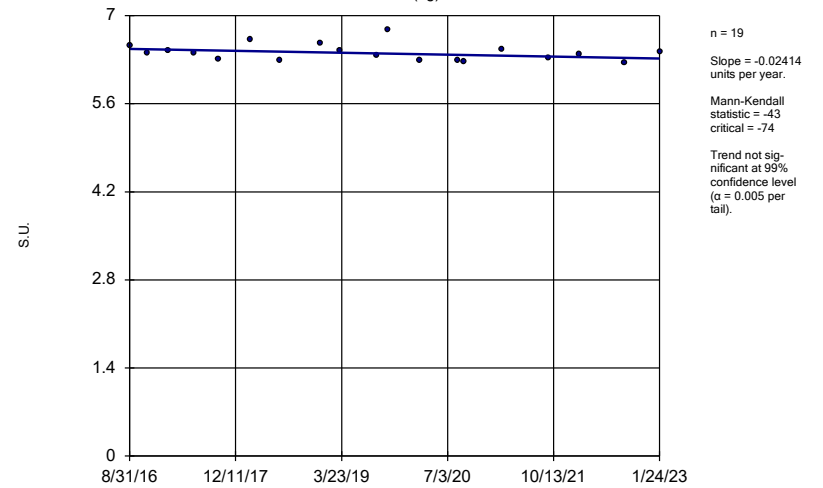
BRGWA-2S (bg)



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

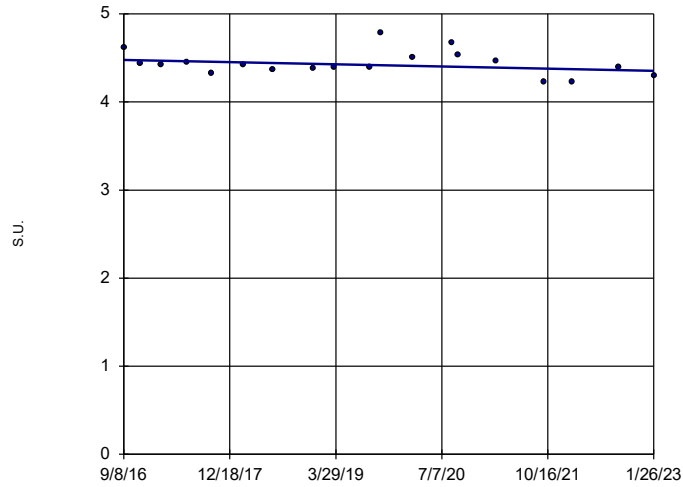
BRGWA-5I (bg)



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

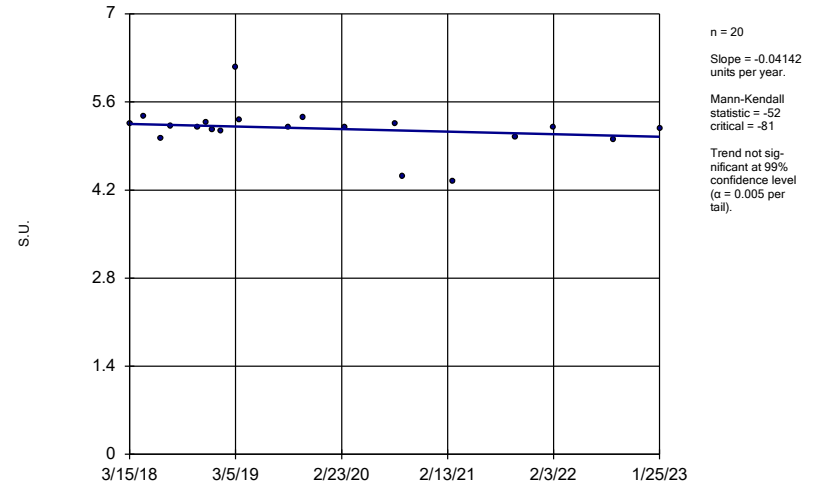
BRGWC-29I



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

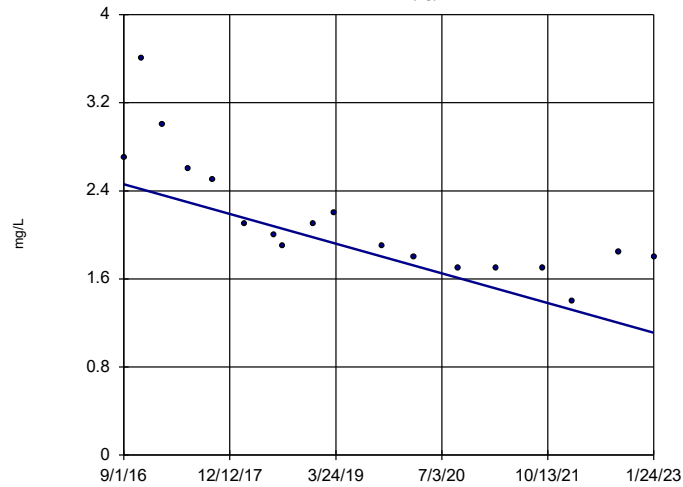
BRGWC-50



Constituent: pH, Field Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

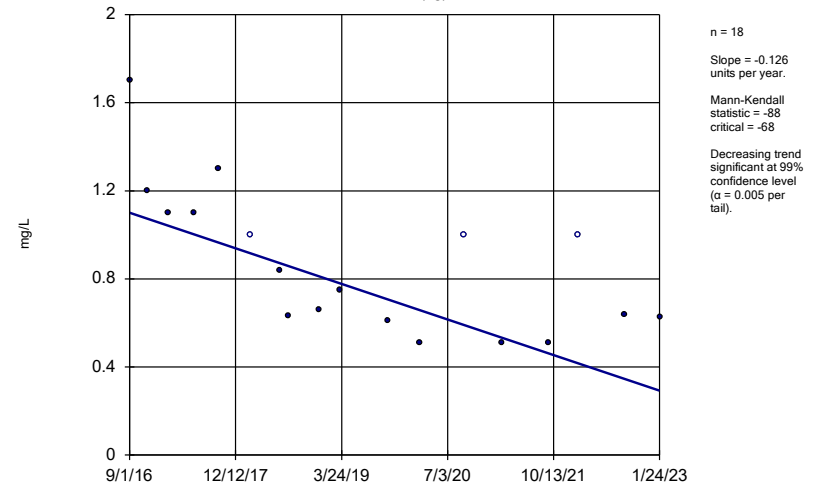
BRGWA-12I (bg)



Constituent: Sulfate Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

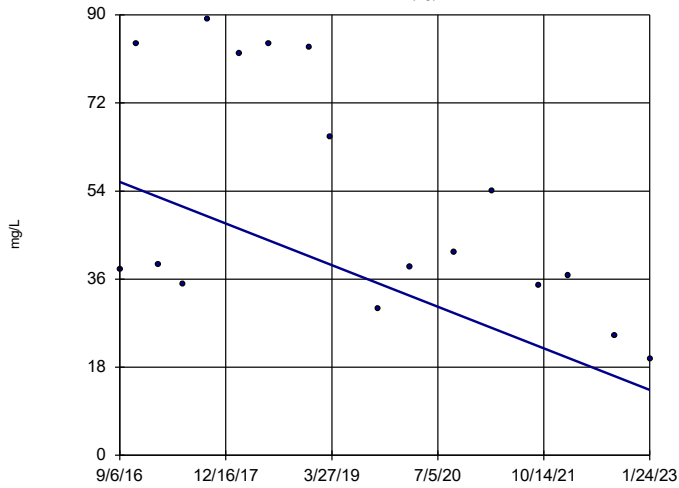
BRGWA-12S (bg)



Constituent: Sulfate Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

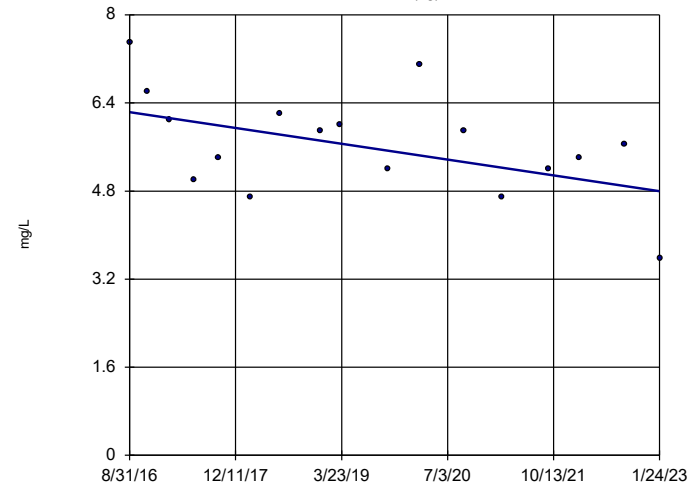


n = 17  
 Slope = -6.651  
 units per year.  
 Mann-Kendall  
 statistic = -58  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

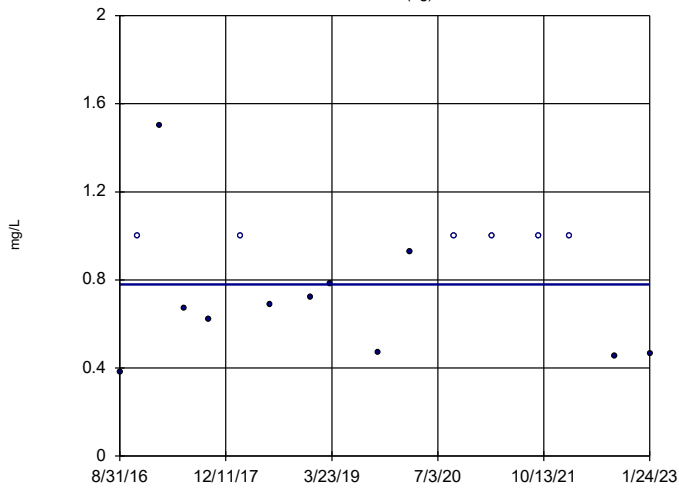


n = 17  
 Slope = -0.2241  
 units per year.  
 Mann-Kendall  
 statistic = -48  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

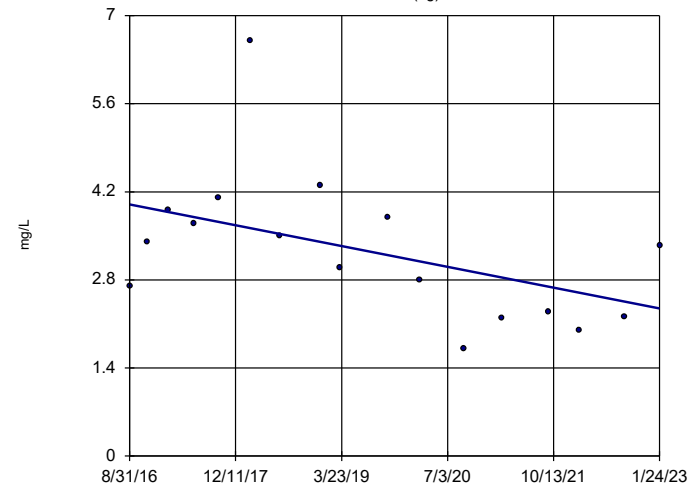


n = 17  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 5  
 critical = 63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:51 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)



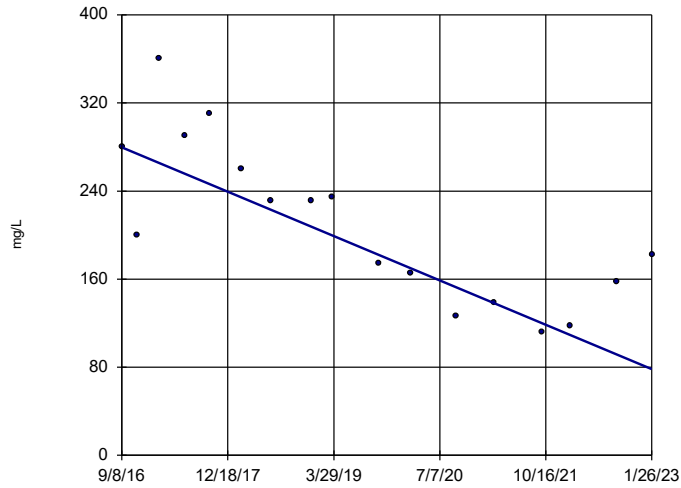
n = 17  
 Slope = -0.2579  
 units per year.  
 Mann-Kendall  
 statistic = -48  
 critical = -63  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

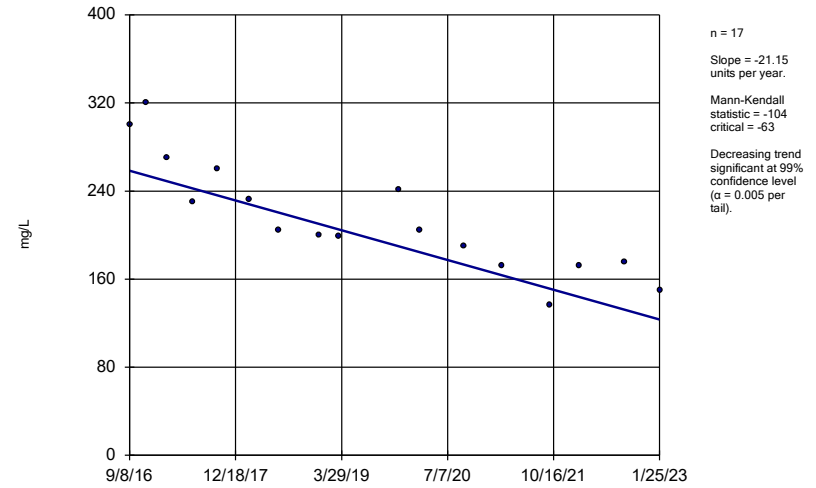
BRGWC-25I



Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

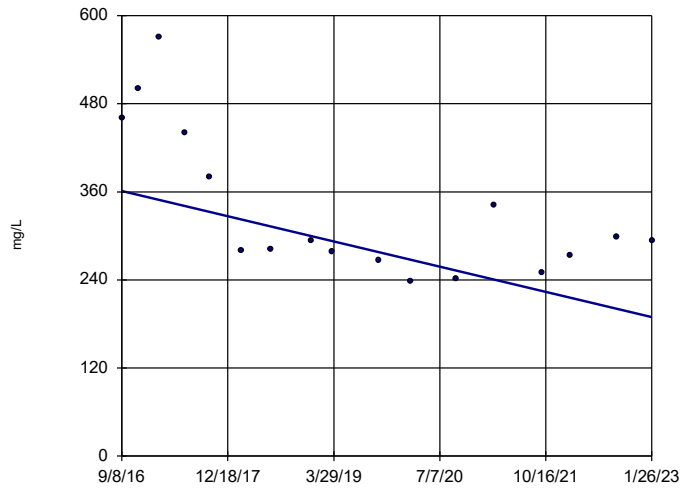
BRGWC-27I



Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

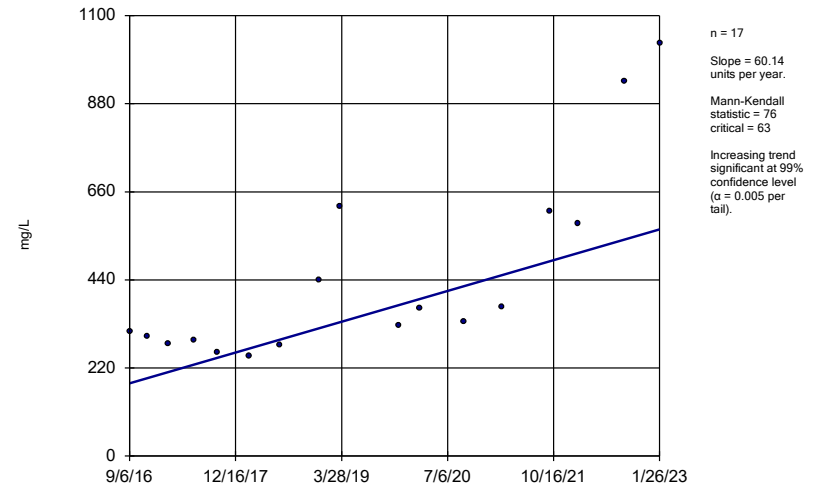
BRGWC-29I



Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

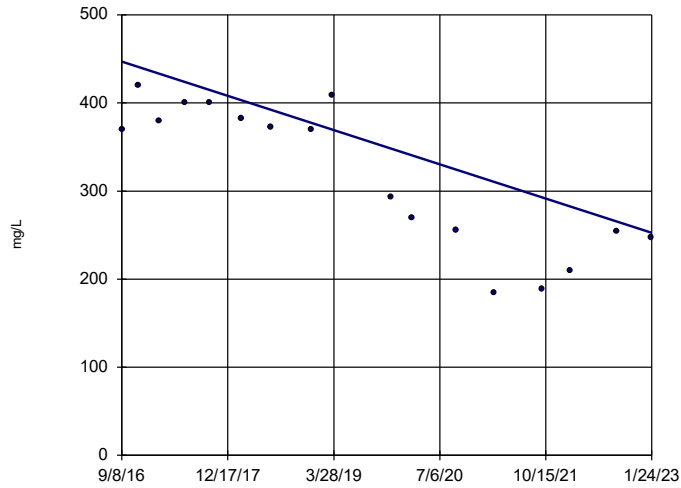
BRGWC-30I



Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-32S

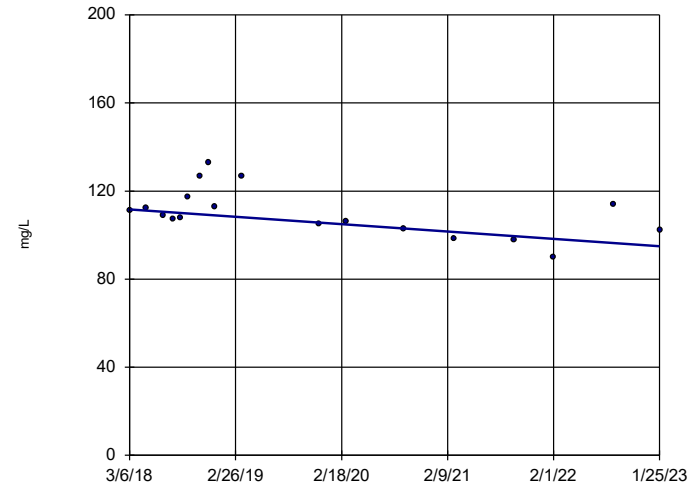


n = 17  
 Slope = -30.5  
 units per year.  
 Mann-Kendall  
 statistic = -84  
 critical = -63  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-45

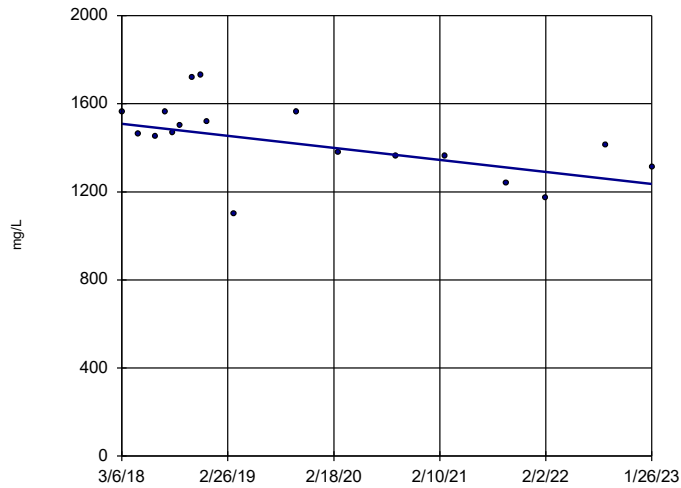


n = 18  
 Slope = -3.401  
 units per year.  
 Mann-Kendall  
 statistic = -56  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-47

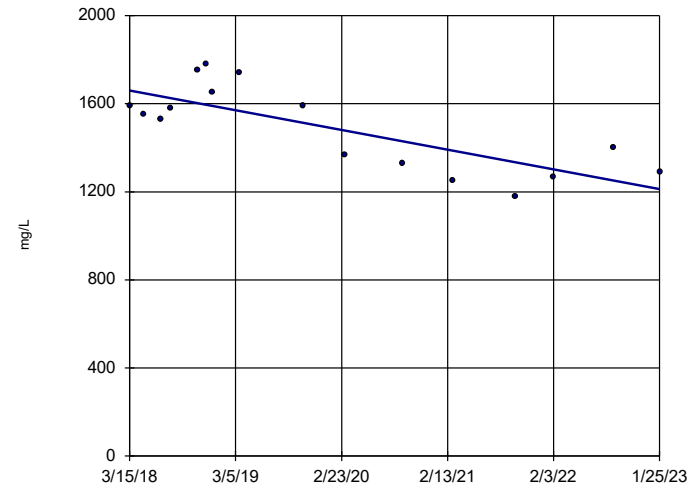


n = 18  
 Slope = -55.67  
 units per year.  
 Mann-Kendall  
 statistic = -61  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50

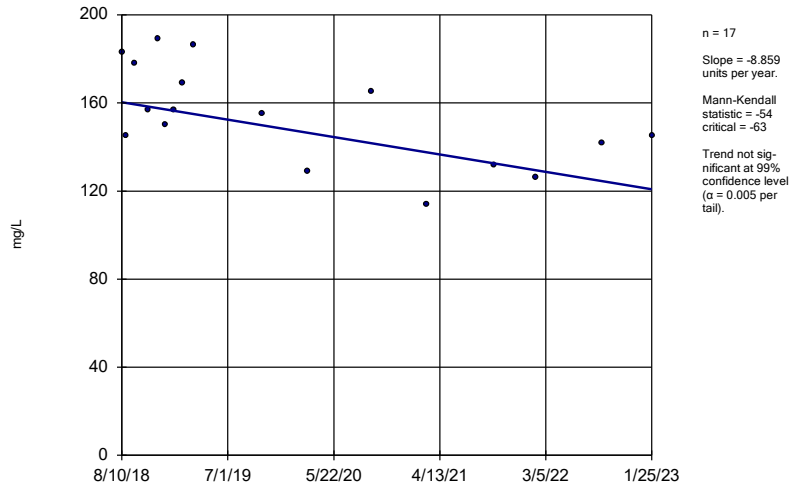


n = 16  
 Slope = -91.94  
 units per year.  
 Mann-Kendall  
 statistic = -53  
 critical = -58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

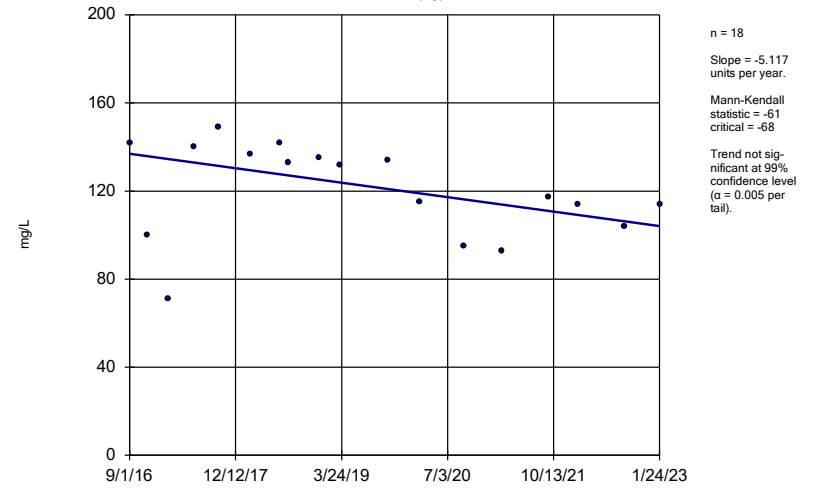
BRGWC-52I



Constituent: Sulfate Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

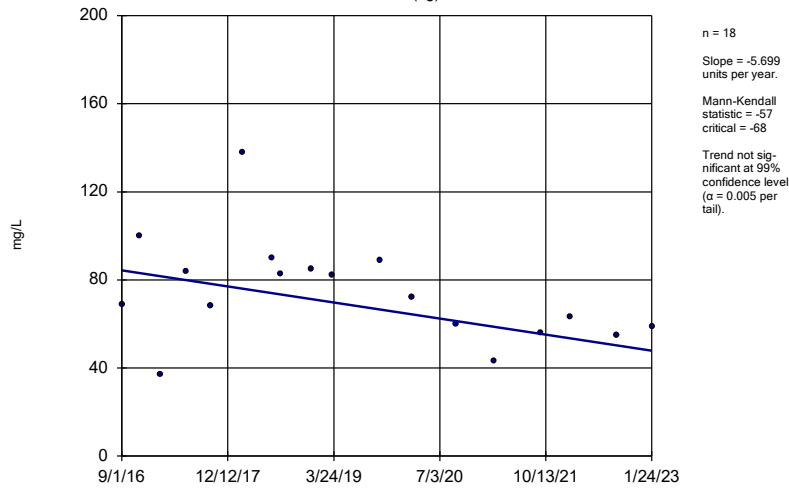
BRGWA-12I (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

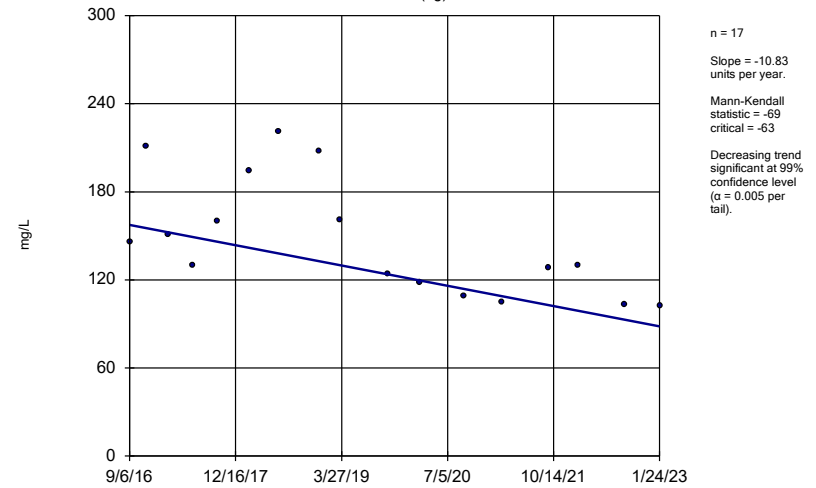
BRGWA-12S (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

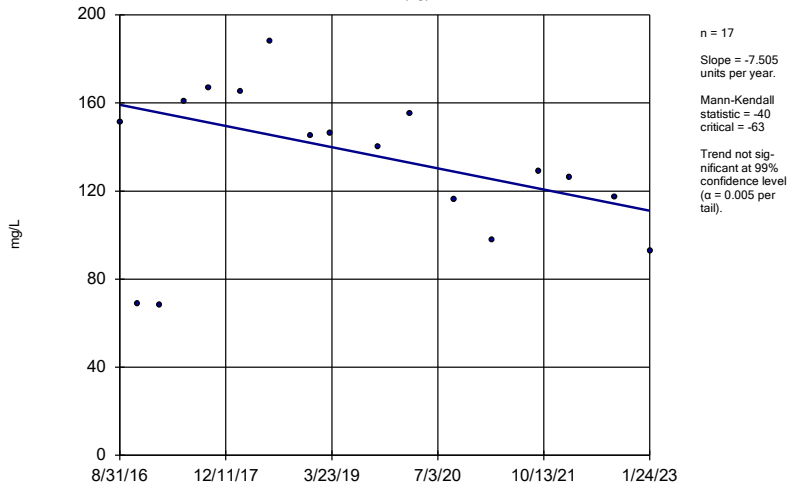
BRGWA-23S (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

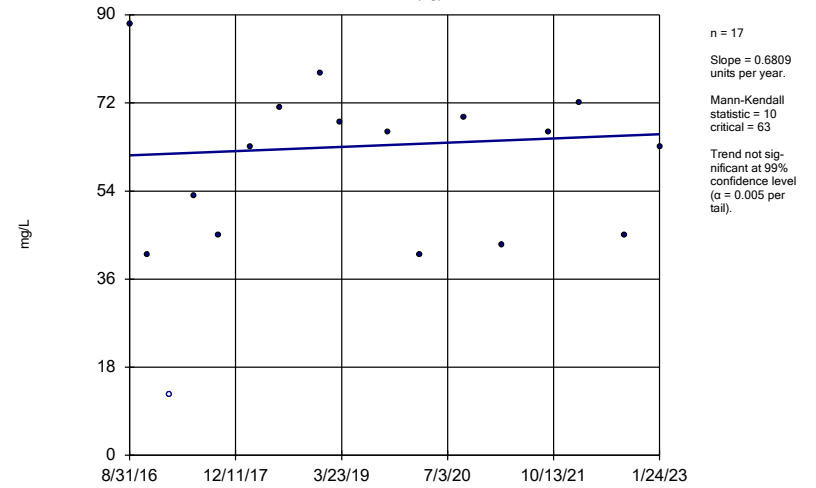
BRGWA-2I (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

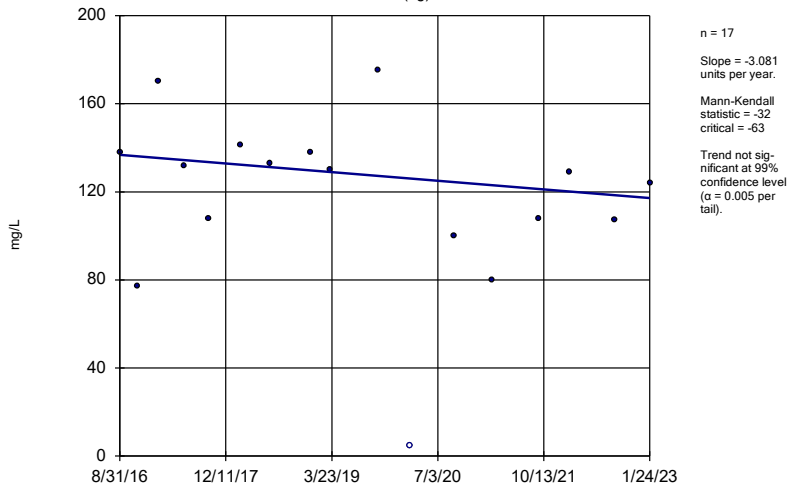
BRGWA-2S (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

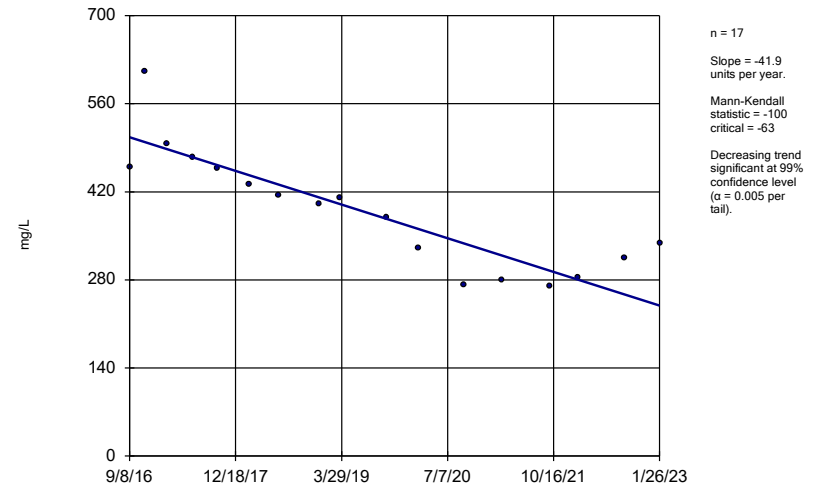
BRGWA-5I (bg)



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

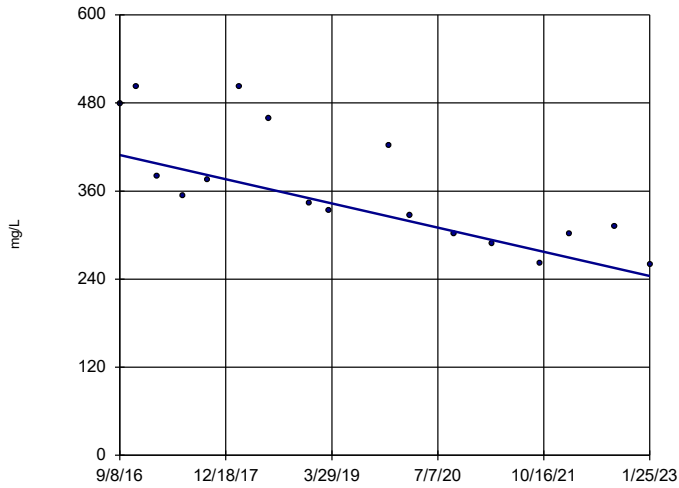
BRGWC-25I



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

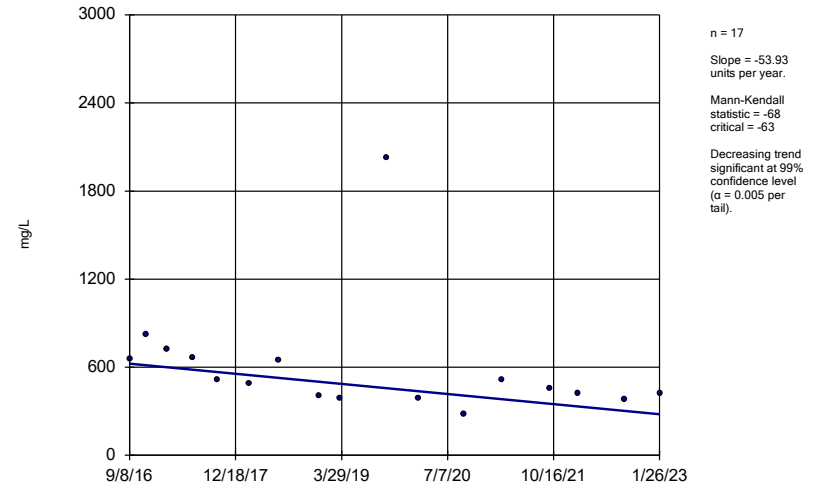
BRGWC-271



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

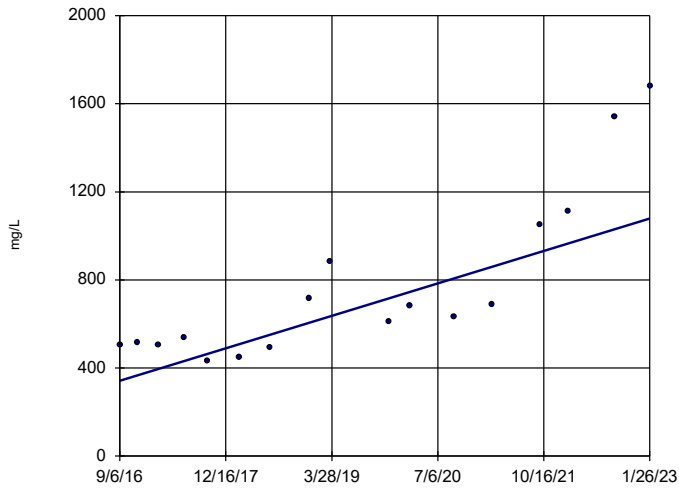
BRGWC-291



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

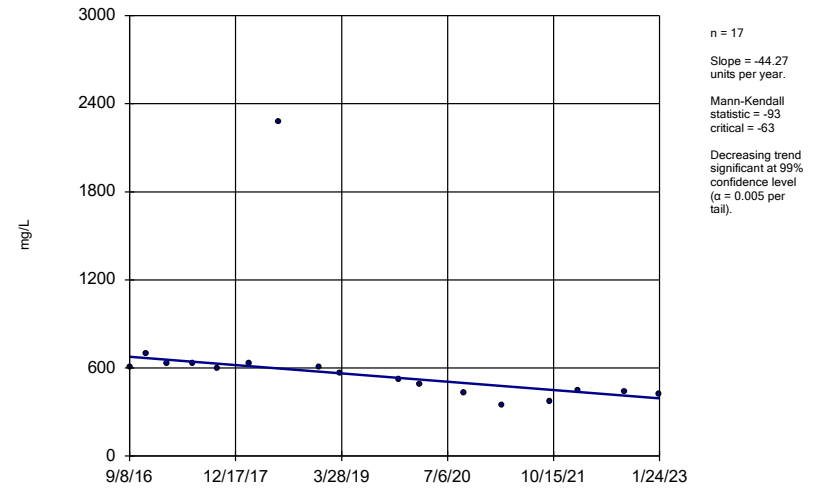
BRGWC-301



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

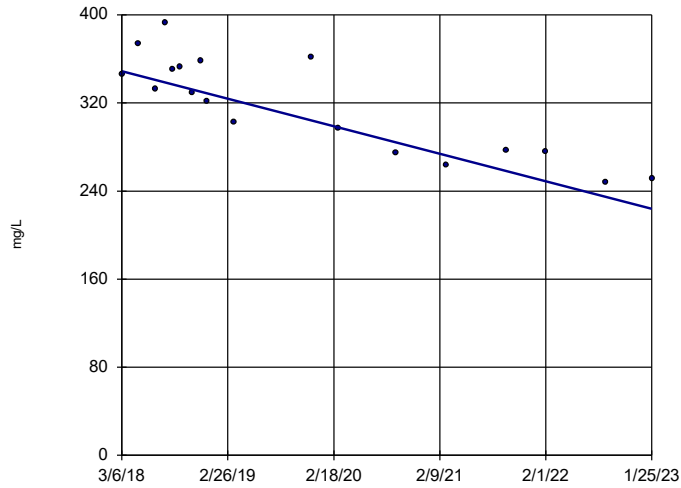
BRGWC-32S



Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-45

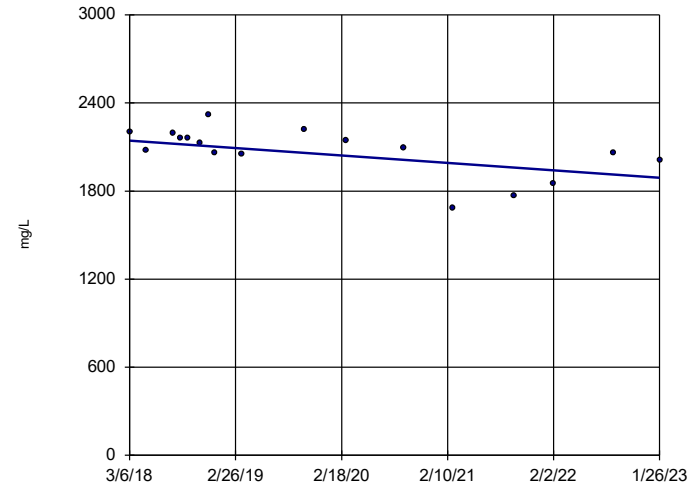


n = 18  
 Slope = -25.56 units per year.  
 Mann-Kendall statistic = -99  
 critical = -68  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-47

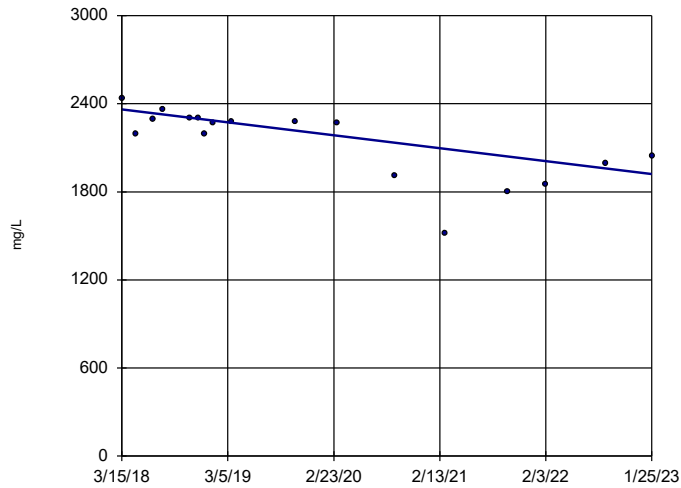


n = 17  
 Slope = -51.51 units per year.  
 Mann-Kendall statistic = -64  
 critical = -63  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50

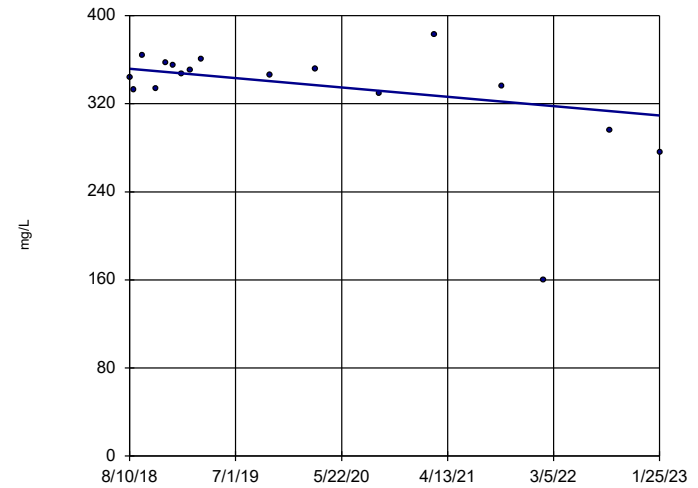


n = 17  
 Slope = -90.66 units per year.  
 Mann-Kendall statistic = -74  
 critical = -63  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-52I



n = 17  
 Slope = -9.523 units per year.  
 Mann-Kendall statistic = -38  
 critical = -63  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/27/2023 3:52 PM View: Pond BCD - Appendix III Tren  
 Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE F.

# Upper Tolerance Limits Summary Table

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 3/20/2023, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0245	n/a	n/a	n/a	n/a 144	n/a	n/a	82.64	n/a	n/a	0.0006197	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a 144	n/a	n/a	75.69	n/a	n/a	0.0006197	NP Inter(NDs)
Barium (mg/L)	n/a	0.13	n/a	n/a	n/a	n/a 144	n/a	n/a	0	n/a	n/a	0.0006197	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	n/a 144	n/a	n/a	100	n/a	n/a	0.0006197	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a 146	n/a	n/a	98.63	n/a	n/a	0.0005593	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	n/a 144	n/a	n/a	21.53	n/a	n/a	0.0006197	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0135	n/a	n/a	n/a	n/a 144	n/a	n/a	56.25	n/a	n/a	0.0006197	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	2.235	n/a	n/a	n/a	n/a 144	0.9087	0.2128	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.42	n/a	n/a	n/a	n/a 152	n/a	n/a	51.97	n/a	n/a	0.0004111	NP Inter(NDs)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 144	n/a	n/a	87.5	n/a	n/a	0.0006197	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	n/a	n/a	n/a	n/a 144	n/a	n/a	40.28	n/a	n/a	0.0006197	NP Inter(normality)
Mercury (mg/L)	n/a	0.00021	n/a	n/a	n/a	n/a 128	n/a	n/a	88.28	n/a	n/a	0.001408	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.008	n/a	n/a	n/a	n/a 141	n/a	n/a	76.6	n/a	n/a	0.0007228	NP Inter(NDs)
Selenium (mg/L)	n/a	0.006	n/a	n/a	n/a	n/a 144	n/a	n/a	91.67	n/a	n/a	0.0006197	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a 144	n/a	n/a	100	n/a	n/a	0.0006197	NP Inter(NDs)



FIGURE G.

<b>PLANT BRANCH POND BCD GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.025	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.13	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.016	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.014	0.014
Combined Radium, Total (pCi/L)	5		2.24	5
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.089	0.089
Mercury, Total (mg/L)	0.002		0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.008	0.1
Selenium, Total (mg/L)	0.05		0.006	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002

*\*Highlighted cells indicate Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residuals*

*\*GWPS = Groundwater Protection Standard*

*\*\*MCL used in lieu of Background limit for Antimony*

FIGURE H.

# Appendix IV Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	PZ-58I	0.0441	0.0175	0.004	Yes	4	0.0308	0.005859	0	None	No	0.01	Param.
Beryllium (mg/L)	PZ-60I	0.08372	0.05903	0.004	Yes	4	0.07138	0.00544	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-50	0.03111	0.01142	0.005	Yes	18	0.02652	0.02449	0	None	In(x)	0.01	Param.
Cadmium (mg/L)	PZ-60I	0.01772	0.01438	0.005	Yes	4	0.01605	0.0007371	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-50	1.42	1.35	0.014	Yes	18	1.393	0.06506	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	PZ-51I	0.0239	0.018	0.014	Yes	11	0.02245	0.006531	0	None	No	0.006	NP (normality)
Cobalt (mg/L)	PZ-58I	0.5978	0.3227	0.014	Yes	4	0.4603	0.06059	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-60I	3.76	3.295	0.014	Yes	4	3.528	0.1024	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-61I	0.6826	0.3804	0.014	Yes	4	0.5315	0.06656	0	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-32S	0.1777	0.08972	0.05	Yes	11	0.1337	0.0528	0	None	No	0.01	Param.

# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-29I	0.003	0.0007	0.006	No	18	0.002872	0.0005421	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-30I	0.003	0.0013	0.006	No	18	0.002906	0.0004007	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.006	No	18	0.002911	0.0003771	94.44	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-45	0.003	0.0014	0.006	No	19	0.002476	0.0008773	63.16	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-47	0.003	0.00035	0.006	No	19	0.002861	0.000608	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-50	0.003	0.00092	0.006	No	18	0.002603	0.0009186	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-52I	0.003	0.00091	0.006	No	18	0.002622	0.0008751	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	PZ-50D	0.003	0.00056	0.006	No	5	0.002512	0.001091	80	None	No	0.031	NP (NDs)
Antimony (mg/L)	PZ-51D	0.003	0.0013	0.006	No	5	0.00266	0.0007603	80	None	No	0.031	NP (NDs)
Antimony (mg/L)	PZ-51I	0.003	0.00079	0.006	No	9	0.00241	0.0009139	66.67	None	No	0.002	NP (NDs)
Antimony (mg/L)	PZ-51S	0.003	0.00043	0.006	No	9	0.002581	0.000899	77.78	None	No	0.002	NP (NDs)
Arsenic (mg/L)	BRGWC-25I	0.005	0.00091	0.01	No	18	0.004042	0.001846	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-27I	0.005	0.0014	0.01	No	18	0.004117	0.001705	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-29I	0.005	0.0015	0.01	No	18	0.003533	0.001934	61.11	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-30I	0.005	0.00283	0.01	No	18	0.004471	0.001281	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	18	0.004752	0.001054	94.44	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-45	0.005	0.00096	0.01	No	19	0.003807	0.001846	68.42	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-47	0.002151	0.001064	0.01	No	19	0.002922	0.00179	31.58	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	BRGWC-50	0.005	0.00236	0.01	No	18	0.004026	0.001678	72.22	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-52I	0.005	0.0026	0.01	No	18	0.003732	0.001464	44.44	None	No	0.01	NP (normality)
Arsenic (mg/L)	PZ-50D	0.002686	0.0005992	0.01	No	5	0.002314	0.001625	20	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51D	0.003427	0.0009382	0.01	No	5	0.002746	0.001463	20	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-51I	0.005	0.00222	0.01	No	9	0.004691	0.0009267	88.89	Kaplan-Meier	No	0.002	NP (NDs)
Arsenic (mg/L)	PZ-51S	0.005	0.002	0.01	No	9	0.004667	0.001	88.89	Kaplan-Meier	No	0.002	NP (NDs)
Arsenic (mg/L)	PZ-58I	0.005	0.00245	0.01	No	4	0.004362	0.001275	75	Kaplan-Meier	No	0.0625	NP (NDs)
Arsenic (mg/L)	PZ-60I	0.004558	0.001062	0.01	No	4	0.003905	0.001412	50	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	PZ-61I	0.003224	0.001776	0.01	No	4	0.003125	0.00129	25	Kaplan-Meier	No	0.01	Param.
Barium (mg/L)	BRGWC-25I	0.03448	0.0265	2	No	18	0.0307	0.006863	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-27I	0.01683	0.01509	2	No	18	0.01596	0.001436	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-29I	0.01913	0.01697	2	No	18	0.01805	0.001783	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-30I	0.0297	0.02273	2	No	18	0.02647	0.006136	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04095	0.02622	2	No	18	0.03358	0.01218	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-45	0.09258	0.07362	2	No	19	0.0831	0.0162	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-47	0.04219	0.03302	2	No	19	0.03761	0.007828	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-50	0.02087	0.01792	2	No	18	0.01939	0.00244	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-52I	0.02493	0.0166	2	No	18	0.02077	0.006881	0	None	No	0.01	Param.
Barium (mg/L)	PZ-50D	0.04389	0.02299	2	No	5	0.03344	0.006236	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51D	0.07996	0.04024	2	No	5	0.0601	0.01185	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51I	0.0161	0.01381	2	No	9	0.01496	0.001182	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51S	0.03369	0.02416	2	No	9	0.02892	0.004935	0	None	No	0.01	Param.
Barium (mg/L)	PZ-57I	0.024	0.0219	2	No	4	0.02248	0.001018	0	None	No	0.0625	NP (normality)
Barium (mg/L)	PZ-58I	0.01893	0.01497	2	No	4	0.01695	0.0008737	0	None	No	0.01	Param.
Barium (mg/L)	PZ-60I	0.02335	0.02035	2	No	4	0.02185	0.0006608	0	None	No	0.01	Param.
Barium (mg/L)	PZ-61I	0.03953	0.006803	2	No	4	0.01745	0.00777	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	BRGWC-27I	0.0005	0.0001	0.004	No	19	0.0002492	0.00018	31.58	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-29I	0.0012	0.00073	0.004	No	18	0.0009503	0.0002463	5.556	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-45	0.0005	0.000079	0.004	No	20	0.0004563	0.0001348	90	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-47	0.0005	0.000056	0.004	No	19	0.0004294	0.0001676	84.21	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-50	0.005961	0.003187	0.004	No	18	0.004574	0.002292	11.11	None	No	0.01	Param.
Beryllium (mg/L)	PZ-50D	0.0005	0.000059	0.004	No	5	0.0003656	0.0001984	60	None	No	0.031	NP (NDs)
Beryllium (mg/L)	PZ-51I	0.0005	0.000064	0.004	No	9	0.0002196	0.0002106	33.33	None	No	0.002	NP (normality)
Beryllium (mg/L)	PZ-57I	0.0009825	0.00003254	0.004	No	4	0.0005075	0.0002092	0	None	No	0.01	Param.
<b>Beryllium (mg/L)</b>	<b>PZ-58I</b>	<b>0.0441</b>	<b>0.0175</b>	<b>0.004</b>	<b>Yes</b>	<b>4</b>	<b>0.0308</b>	<b>0.005859</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Beryllium (mg/L)</b>	<b>PZ-60I</b>	<b>0.08372</b>	<b>0.05903</b>	<b>0.004</b>	<b>Yes</b>	<b>4</b>	<b>0.07138</b>	<b>0.00544</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Beryllium (mg/L)	PZ-61I	0.002163	0.001247	0.004	No	4	0.001705	0.0002016	0	None	No	0.01	Param.

# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cadmium (mg/L)	BRGWC-27I	0.001	0.00009	0.005	No	19	0.0009032	0.0002901	89.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-30I	0.001	0.00014	0.005	No	19	0.0009063	0.0002808	89.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-32S	0.001	0.00011	0.005	No	19	0.0008574	0.0003385	84.21	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-45	0.001	0.0002	0.005	No	20	0.0008274	0.0003546	80	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-47	0.001	0.00017	0.005	No	19	0.0005647	0.0004251	47.37	None	No	0.01	NP (normality)
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>0.03111</b>	<b>0.01142</b>	<b>0.005</b>	<b>Yes</b>	<b>18</b>	<b>0.02652</b>	<b>0.02449</b>	<b>0</b>	<b>None</b>	<b>In(x)</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-51I	0.008831	0.001307	0.005	No	11	0.006738	0.009827	0	None	In(x)	0.01	Param.
Cadmium (mg/L)	PZ-57I	0.001474	0.0002059	0.005	No	4	0.00092	0.0003081	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	PZ-58I	0.004998	0.003477	0.005	No	4	0.004238	0.0003351	0	None	No	0.01	Param.
<b>Cadmium (mg/L)</b>	<b>PZ-60I</b>	<b>0.01772</b>	<b>0.01438</b>	<b>0.005</b>	<b>Yes</b>	<b>4</b>	<b>0.01605</b>	<b>0.0007371</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-61I	0.001333	-0.0001695	0.005	No	4	0.0005815	0.0003308	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-25I	0.01	0.0016	0.1	No	18	0.009032	0.002819	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-27I	0.01	0.003	0.1	No	18	0.009111	0.00261	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-29I	0.02	0.01	0.1	No	18	0.01056	0.002357	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-30I	0.014	0.0051	0.1	No	18	0.00995	0.001533	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-32S	0.01	0.0014	0.1	No	18	0.004928	0.004182	38.89	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-45	0.01	0.0014	0.1	No	19	0.008575	0.003384	84.21	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-47	0.01	0.0018	0.1	No	19	0.008113	0.003761	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-50	0.01	0.00098	0.1	No	18	0.006708	0.004337	61.11	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-52I	0.01	0.0017	0.1	No	18	0.009539	0.001956	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	PZ-51I	0.01	0.0008	0.1	No	9	0.007976	0.004017	77.78	None	No	0.002	NP (NDs)
Chromium (mg/L)	PZ-51S	0.01	0.00042	0.1	No	9	0.007894	0.004178	77.78	None	No	0.002	NP (NDs)
Chromium (mg/L)	PZ-61I	0.01	0.0077	0.1	No	4	0.009425	0.00115	75	None	No	0.0625	NP (NDs)
Cobalt (mg/L)	BRGWC-25I	0.006179	0.003753	0.014	No	18	0.005129	0.002134	5.556	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BRGWC-27I	0.01045	0.007688	0.014	No	19	0.009069	0.002359	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-29I	0.009583	0.006654	0.014	No	18	0.008224	0.002547	5.556	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-30I	0.00163	0.0008	0.014	No	19	0.007289	0.01456	15.79	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-32S	0.0025	0.001	0.014	No	19	0.001079	0.0003441	89.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-45	0.01302	0.005847	0.014	No	20	0.01189	0.01421	0	None	In(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-47	0.001618	0.0004568	0.014	No	19	0.00208	0.00304	21.05	Kaplan-Meier	In(x)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>BRGWC-50</b>	<b>1.42</b>	<b>1.35</b>	<b>0.014</b>	<b>Yes</b>	<b>18</b>	<b>1.393</b>	<b>0.06506</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Cobalt (mg/L)	BRGWC-52I	0.0015	0.00063	0.014	No	18	0.001361	0.0009415	61.11	None	No	0.01	NP (NDs)
Cobalt (mg/L)	PZ-50D	0.4233	-0.0007998	0.014	No	6	0.1477	0.19	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	PZ-51D	0.001	0.000306	0.014	No	6	0.000686	0.0003459	50	None	No	0.0155	NP (normality)
<b>Cobalt (mg/L)</b>	<b>PZ-51I</b>	<b>0.0239</b>	<b>0.018</b>	<b>0.014</b>	<b>Yes</b>	<b>11</b>	<b>0.02245</b>	<b>0.006531</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.006</b>	<b>NP (normality)</b>
Cobalt (mg/L)	PZ-51S	0.006822	0.002294	0.014	No	10	0.004558	0.002538	0	None	No	0.01	Param.
Cobalt (mg/L)	PZ-57I	0.2078	-0.04814	0.014	No	4	0.07985	0.05637	0	None	No	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>PZ-58I</b>	<b>0.5978</b>	<b>0.3227</b>	<b>0.014</b>	<b>Yes</b>	<b>4</b>	<b>0.4603</b>	<b>0.06059</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>PZ-60I</b>	<b>3.76</b>	<b>3.295</b>	<b>0.014</b>	<b>Yes</b>	<b>4</b>	<b>3.528</b>	<b>0.1024</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>PZ-61I</b>	<b>0.6826</b>	<b>0.3804</b>	<b>0.014</b>	<b>Yes</b>	<b>4</b>	<b>0.5315</b>	<b>0.06656</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	BRGWC-25I	1.679	0.6269	5	No	18	1.254	1.056	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-27I	1.425	0.6104	5	No	18	1.085	0.7821	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-29I	1.713	1.211	5	No	18	1.462	0.4144	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-30I	1.473	0.6591	5	No	18	1.13	0.7702	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.211	0.5003	5	No	18	0.8557	0.5874	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-45	0.9217	0.4144	5	No	19	0.6681	0.4332	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-47	1.728	0.763	5	No	19	1.331	0.9148	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-50	2.167	1.237	5	No	18	1.838	1.105	0	None	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-52I	2.821	1.472	5	No	18	2.386	1.682	0	None	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-50D	3.072	0.5596	5	No	5	1.816	0.7498	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51D	4.007	1.469	5	No	5	2.738	0.757	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51I	11.7	0.625	5	No	9	2.349	3.534	0	None	No	0.002	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-51S	5.233	0.04967	5	No	9	2.831	5.432	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-57I	4.471	-2.318	5	No	4	1.077	1.495	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-58I	5.52	0.1711	5	No	4	2.045	1.34	0	None	sqrt(x)	0.01	Param.

# Appendix IV Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	PZ-60I	6.405	0.625	5	No	4	3.515	1.273	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-61I	4.614	-0.409	5	No	4	2.103	1.106	0	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-25I	0.27	0.15	4	No	19	0.2104	0.1297	5.263	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-27I	0.2562	0.1628	4	No	19	0.2095	0.07973	10.53	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-29I	0.2074	0.0983	4	No	19	0.1745	0.1191	10.53	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-30I	0.3248	0.1385	4	No	19	0.2572	0.2083	5.263	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.11	0.09	4	No	19	0.1063	0.03698	57.89	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BRGWC-45	0.163	0.067	4	No	20	0.1757	0.225	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-47	0.28	0.1	4	No	20	0.2276	0.2515	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-50	0.7597	0.3559	4	No	19	0.6063	0.434	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-52I	0.2275	0.1358	4	No	18	0.1817	0.07574	5.556	None	No	0.01	Param.
Fluoride (mg/L)	PZ-50D	0.2446	0.08577	4	No	6	0.1595	0.06324	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-51D	0.3501	0.2139	4	No	6	0.282	0.04959	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51I	0.12	0.1	4	No	10	0.1029	0.02145	70	None	No	0.011	NP (NDs)
Fluoride (mg/L)	PZ-51S	0.1145	0.05779	4	No	9	0.08614	0.02936	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-57I	0.4156	-0.05908	4	No	4	0.1783	0.1045	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-58I	2.101	0.4237	4	No	4	1.263	0.3694	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-60I	2.66	0.7799	4	No	4	1.72	0.4141	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-61I	0.2137	-0.003234	4	No	4	0.1135	0.04975	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BRGWC-25I	0.002	0.00011	0.015	No	18	0.001895	0.0004455	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-27I	0.002	0.000063	0.015	No	18	0.001892	0.0004566	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-29I	0.002	0.00029	0.015	No	17	0.0007594	0.0007169	23.53	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-30I	0.002	0.00011	0.015	No	18	0.001895	0.0004455	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-45	0.002	0.000595	0.015	No	19	0.001638	0.0007266	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-47	0.002	0.00012	0.015	No	19	0.001697	0.0007202	84.21	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-50	0.002	0.0001	0.015	No	18	0.001192	0.0009359	55.56	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-52I	0.002	0.000042	0.015	No	18	0.001891	0.0004615	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	PZ-50D	0.002	0.000056	0.015	No	5	0.001611	0.0008694	80	None	No	0.031	NP (NDs)
Lead (mg/L)	PZ-51D	0.002	0.00013	0.015	No	5	0.001626	0.0008363	80	None	No	0.031	NP (NDs)
Lead (mg/L)	PZ-51I	0.002	0.00017	0.015	No	9	0.001614	0.0007665	77.78	None	No	0.002	NP (NDs)
Lead (mg/L)	PZ-58I	0.005	0.000894	0.015	No	4	0.002947	0.00237	50	None	No	0.0625	NP (normality)
Lead (mg/L)	PZ-61I	0.002056	-0.001726	0.015	No	4	0.001758	0.000421	50	Kaplan-Meier	x^6	0.01	Param.
Lithium (mg/L)	BRGWC-27I	0.0021	0.0012	0.089	No	18	0.003378	0.003651	22.22	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-29I	0.003589	0.003039	0.089	No	18	0.003314	0.0004547	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-30I	0.01838	0.01247	0.089	No	18	0.01565	0.005183	0	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	BRGWC-32S	0.0043	0.0021	0.089	No	18	0.00515	0.007326	11.11	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-45	0.003703	0.002923	0.089	No	18	0.003313	0.0006443	5.556	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-47	0.0448	0.04093	0.089	No	19	0.04286	0.003305	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-50	0.04481	0.03861	0.089	No	18	0.04183	0.005319	0	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	BRGWC-52I	0.008377	0.003492	0.089	No	18	0.007144	0.006372	5.556	None	ln(x)	0.01	Param.
Lithium (mg/L)	PZ-50D	0.02919	0.01717	0.089	No	5	0.02318	0.003586	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-51D	0.01013	-0.004012	0.089	No	5	0.008306	0.002317	0	None	x^6	0.01	Param.
Lithium (mg/L)	PZ-51I	0.02379	0.01886	0.089	No	9	0.02132	0.002554	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-51S	0.01	0.0012	0.089	No	9	0.009022	0.002933	88.89	None	No	0.002	NP (NDs)
Lithium (mg/L)	PZ-57I	0.04285	0.008651	0.089	No	4	0.02575	0.007531	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-58I	0.06221	0.03084	0.089	No	4	0.04653	0.00691	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-60I	0.1204	0.08824	0.089	No	4	0.1033	0.007274	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	PZ-61I	0.01379	0.007175	0.089	No	4	0.01048	0.001457	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-25I	0.0002	0.000083	0.002	No	16	0.0001827	0.00004795	87.5	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-27I	0.0002	0.00005	0.002	No	16	0.0001811	0.00005175	87.5	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-29I	0.0002	0.000098	0.002	No	16	0.0001755	0.00005373	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-30I	0.0002	0.000082	0.002	No	16	0.0001745	0.00005539	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0002	0.0001	0.002	No	16	0.0001795	0.0000442	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	PZ-51I	0.0002	0.000099	0.002	No	9	0.0001888	0.00003367	88.89	None	No	0.002	NP (NDs)
Molybdenum (mg/L)	BRGWC-25I	0.01	0.00092	0.1	No	17	0.006269	0.004597	58.82	None	No	0.01	NP (NDs)

# Appendix IV Confidence Intervals - All Results

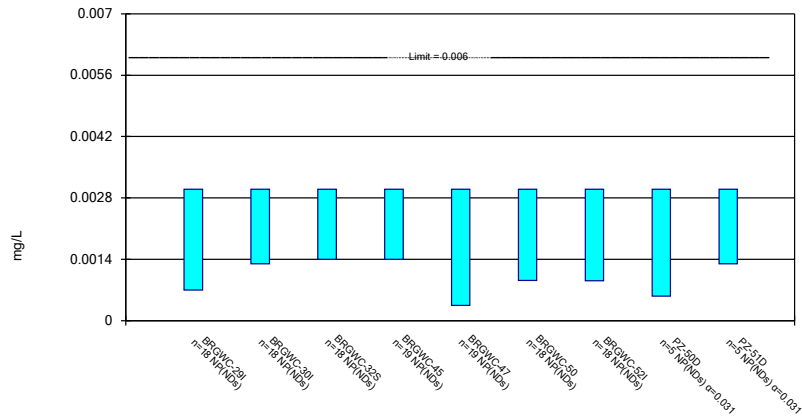
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/21/2023, 3:26 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	BRGWC-30I	0.01	0.0014	0.1	No	17	0.006941	0.004279	64.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-45	0.01	0.00076	0.1	No	18	0.008429	0.003614	83.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-47	0.01	0.000296	0.1	No	18	0.00892	0.003142	88.89	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-50	0.0022	0.001	0.1	No	17	0.001206	0.0006129	88.24	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-52I	0.01	0.001	0.1	No	17	0.005734	0.004082	41.18	None	No	0.01	NP (normality)
Molybdenum (mg/L)	PZ-50D	0.002242	0.0005211	0.1	No	5	0.001381	0.0005134	0	None	No	0.01	Param.
Molybdenum (mg/L)	PZ-51D	0.006741	-0.001157	0.1	No	5	0.002792	0.002356	0	None	No	0.01	Param.
Molybdenum (mg/L)	PZ-51I	0.01	0.000283	0.1	No	9	0.007844	0.004278	77.78	None	No	0.002	NP (NDs)
Selenium (mg/L)	BRGWC-25I	0.005	0.0021	0.05	No	18	0.004839	0.0006835	94.44	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-27I	0.005	0.0025	0.05	No	18	0.003906	0.00124	38.89	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-29I	0.005	0.0042	0.05	No	18	0.004839	0.001308	55.56	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-30I	0.005	0.0045	0.05	No	18	0.004639	0.0008452	77.78	None	No	0.01	NP (NDs)
<b>Selenium (mg/L)</b>	<b>BRGWC-32S</b>	<b>0.1777</b>	<b>0.08972</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0.1337</b>	<b>0.0528</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Selenium (mg/L)	BRGWC-45	0.005	0.0029	0.05	No	19	0.004889	0.0004818	94.74	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-47	0.005	0.002	0.05	No	19	0.004032	0.001486	68.42	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-50	0.005	0.002	0.05	No	18	0.003603	0.001415	44.44	None	No	0.01	NP (normality)
Selenium (mg/L)	PZ-58I	0.004763	0.0008017	0.05	No	4	0.002783	0.0008725	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-60I	0.006049	0.001336	0.05	No	4	0.003693	0.001038	0	None	No	0.01	Param.
Selenium (mg/L)	PZ-61I	0.009924	-0.0002686	0.05	No	4	0.004828	0.002245	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-29I	0.002	0.00017	0.002	No	18	0.0006844	0.0008396	27.78	None	No	0.01	NP (normality)



### Non-Parametric Confidence Interval

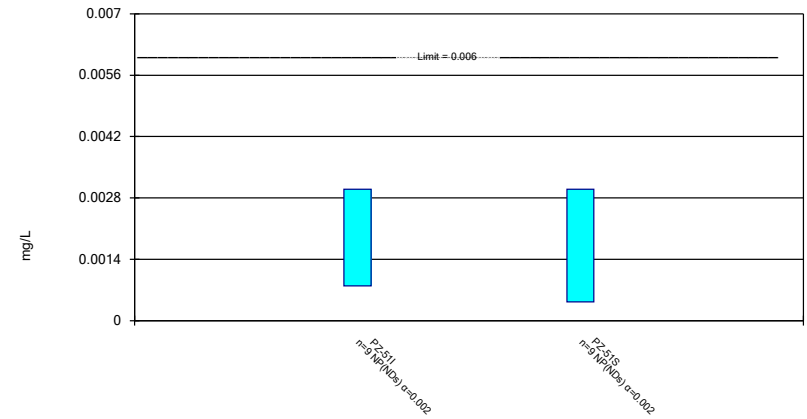
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Antimony Analysis Run 3/21/2023 3:23 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

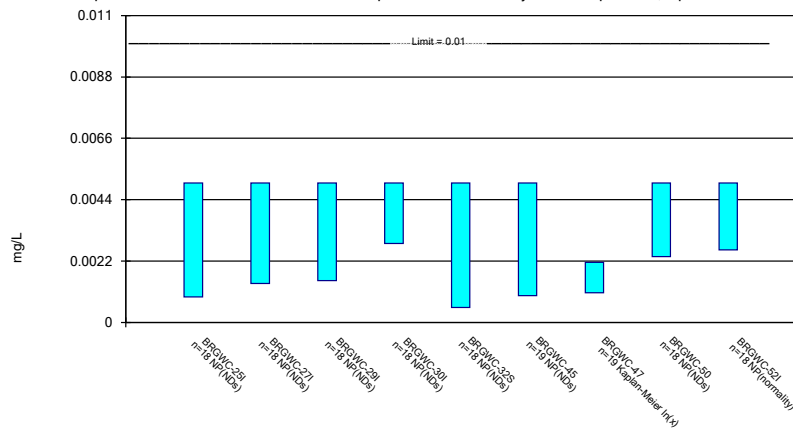
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 3/21/2023 3:23 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

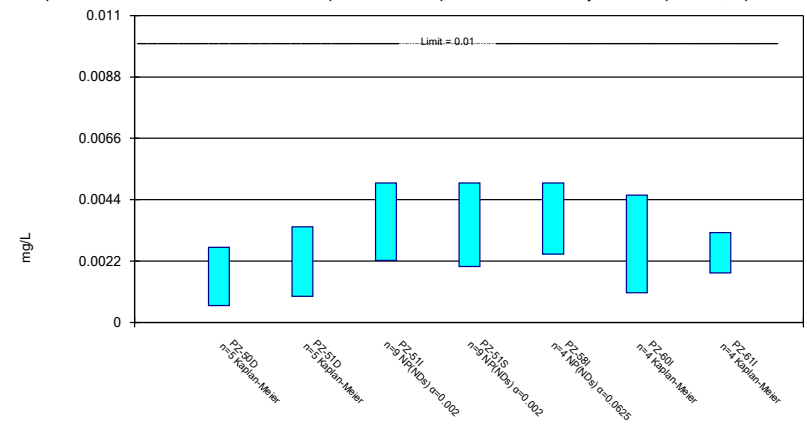
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 3/21/2023 3:23 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

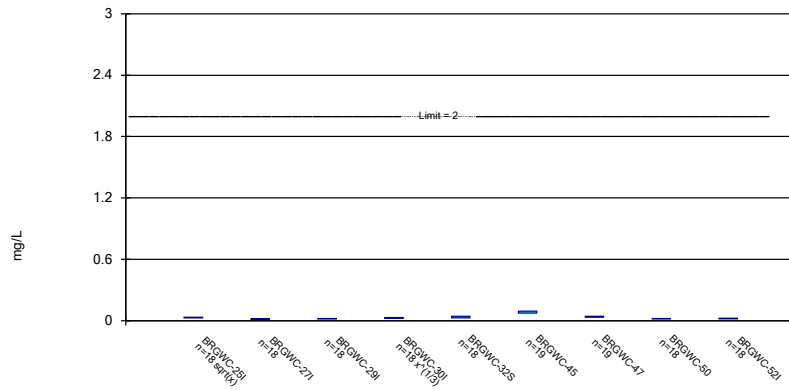
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 3/21/2023 3:23 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

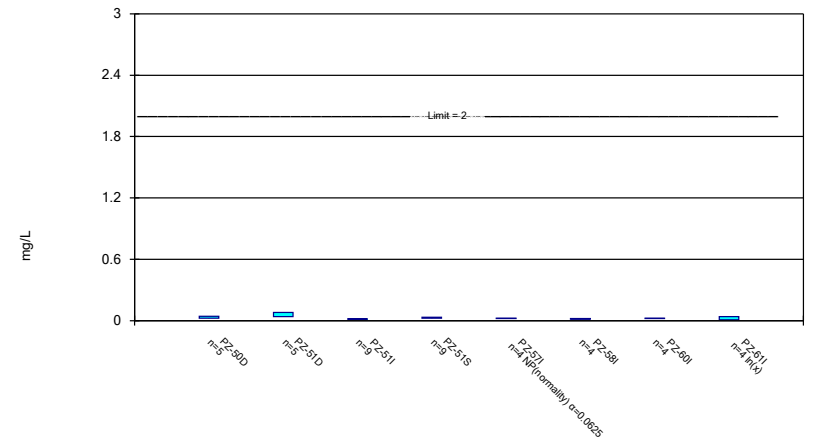
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/21/2023 3:23 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

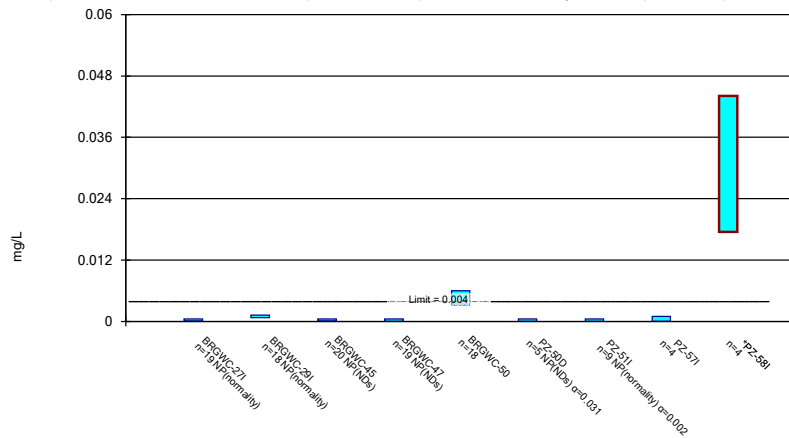
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 3/21/2023 3:23 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

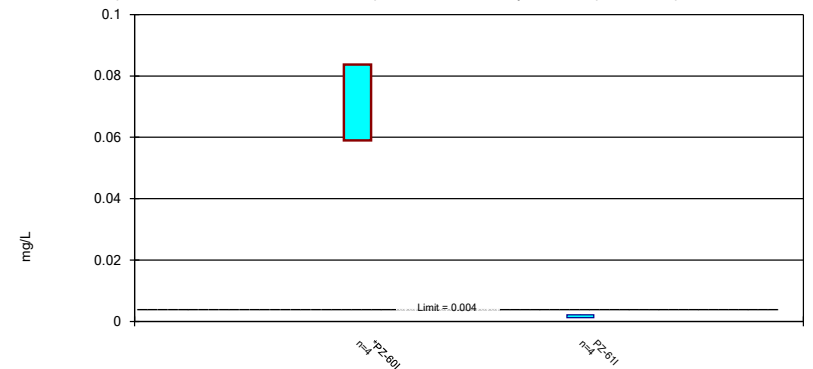
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

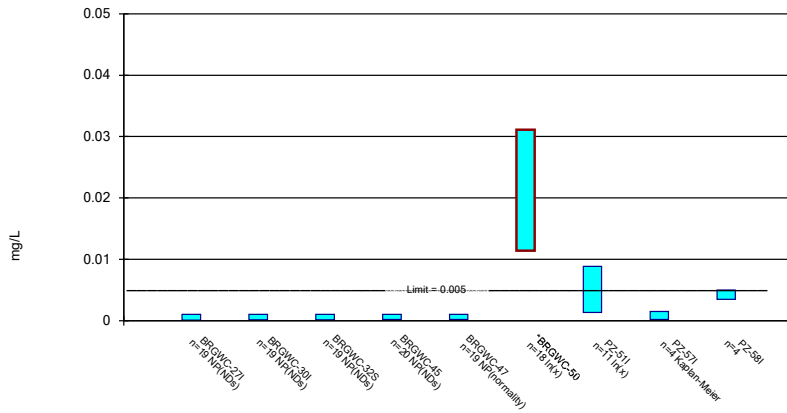
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

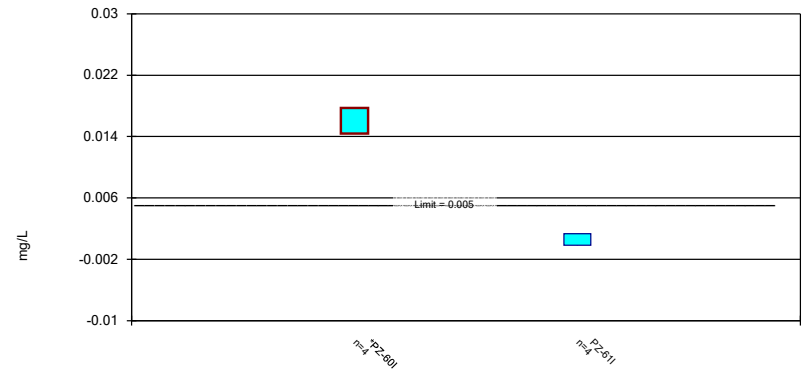
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

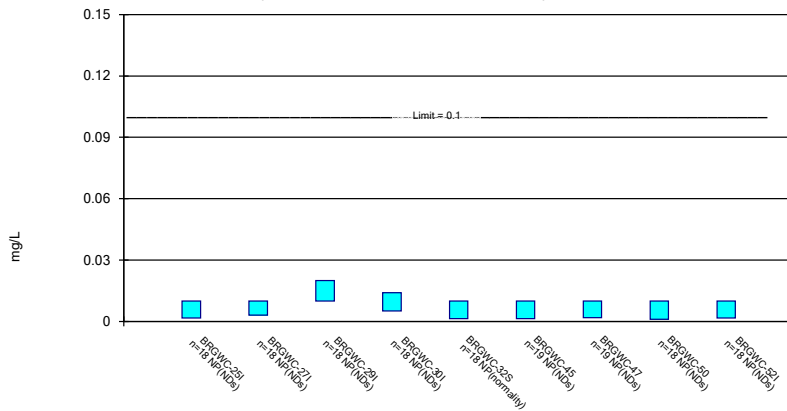
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

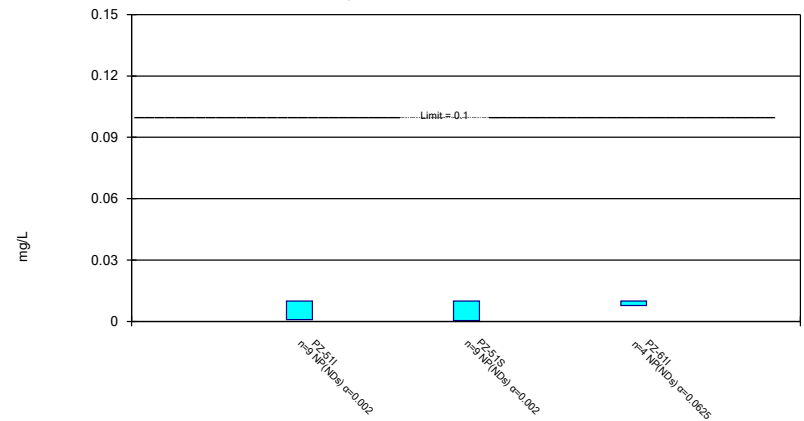
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Inter  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

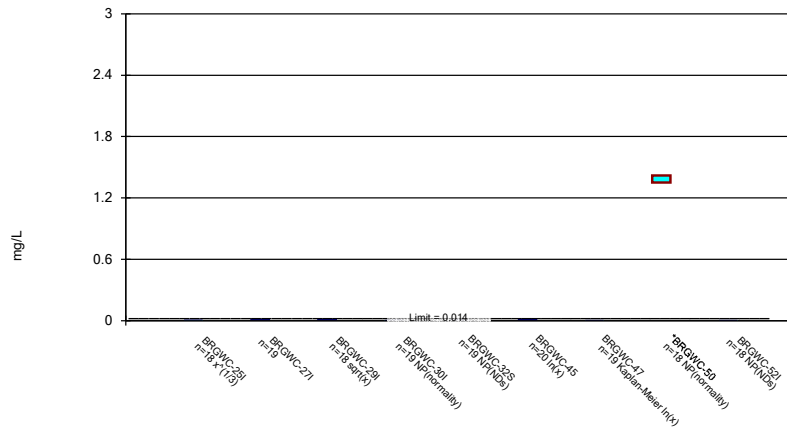
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Inter  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

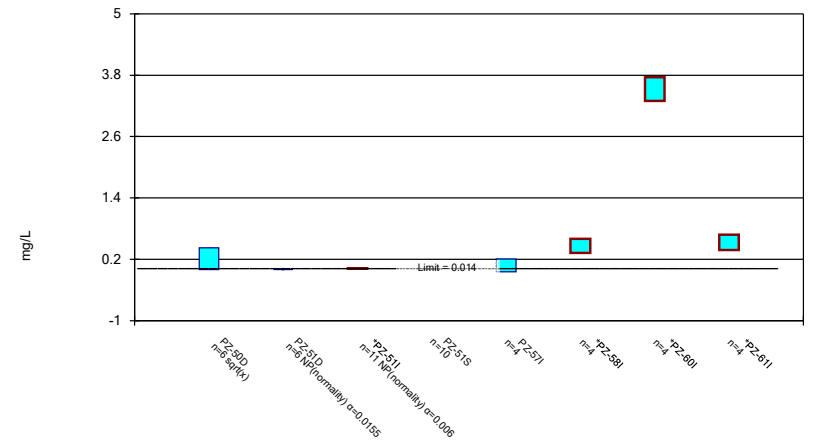
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

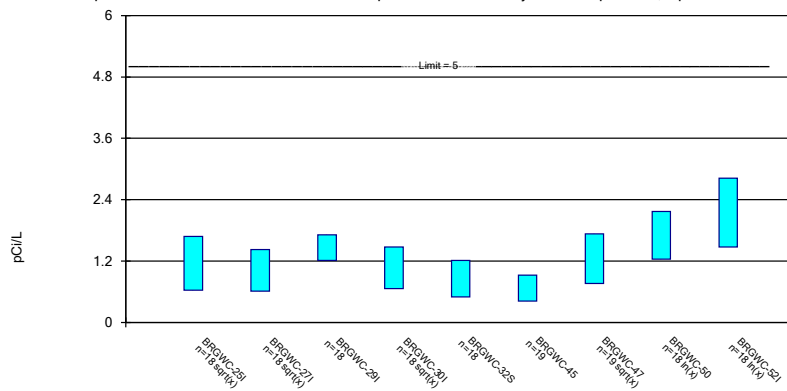
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

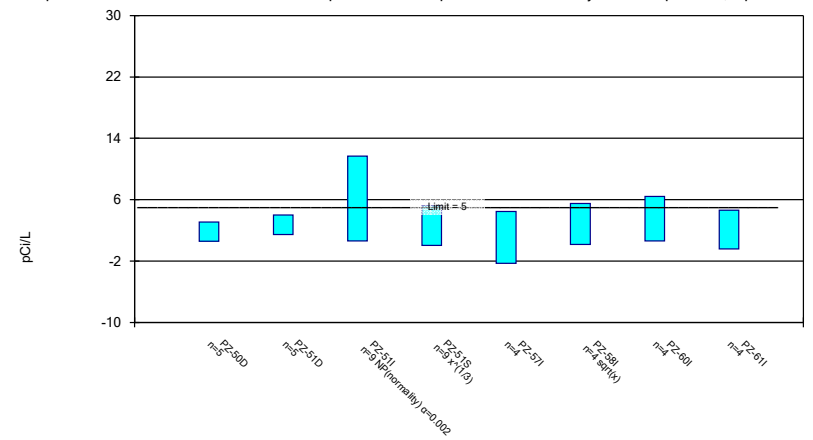
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

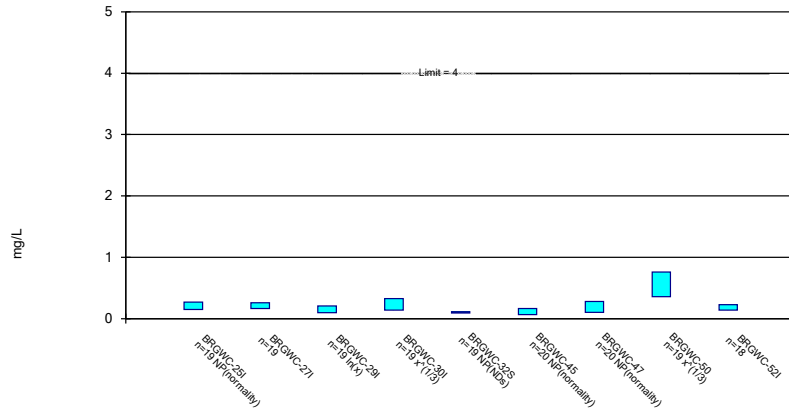
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

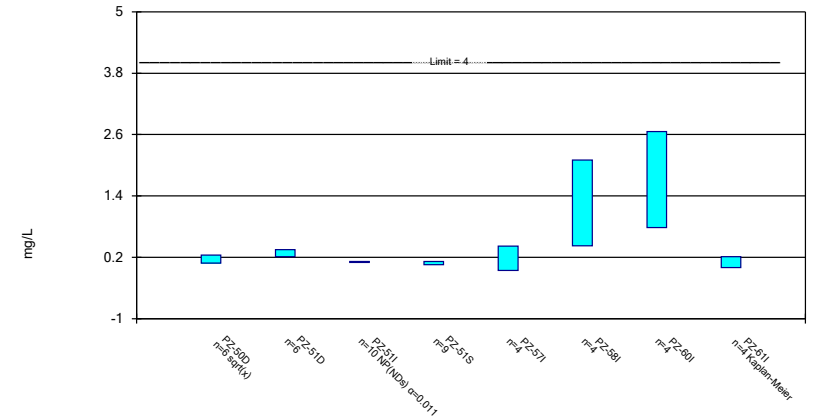
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

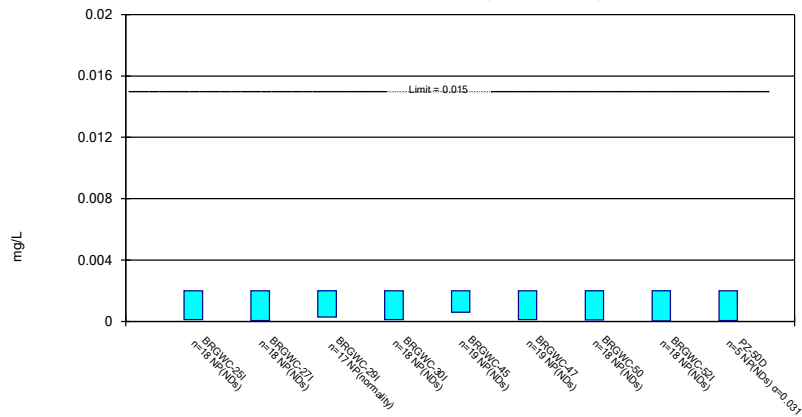
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

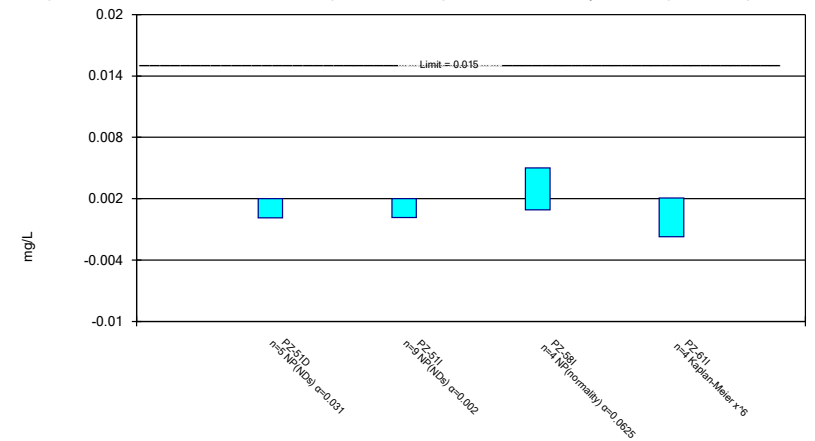
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

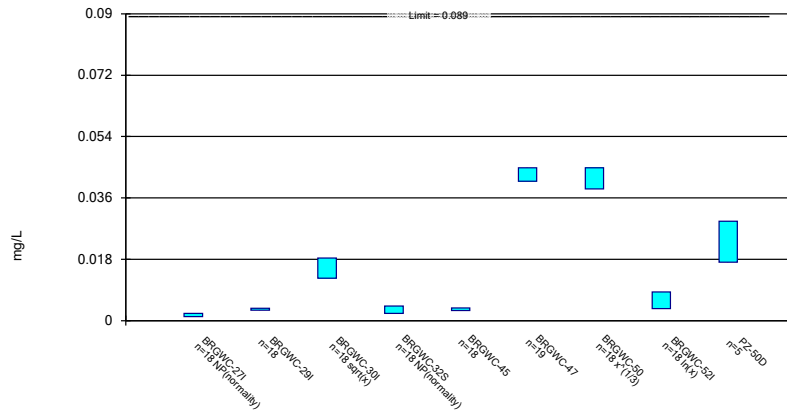
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

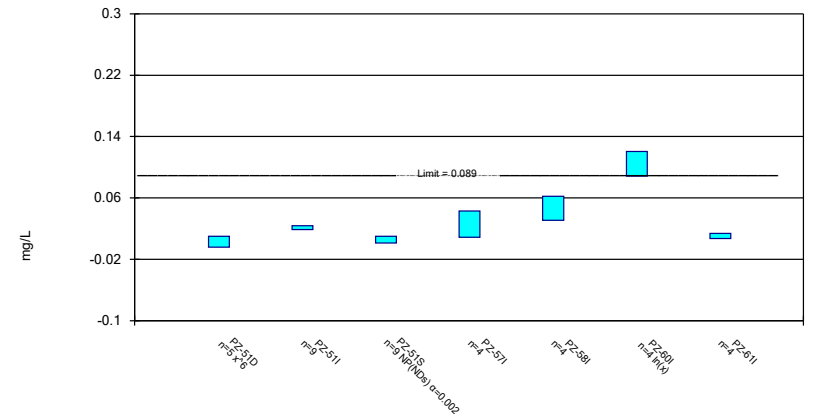
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

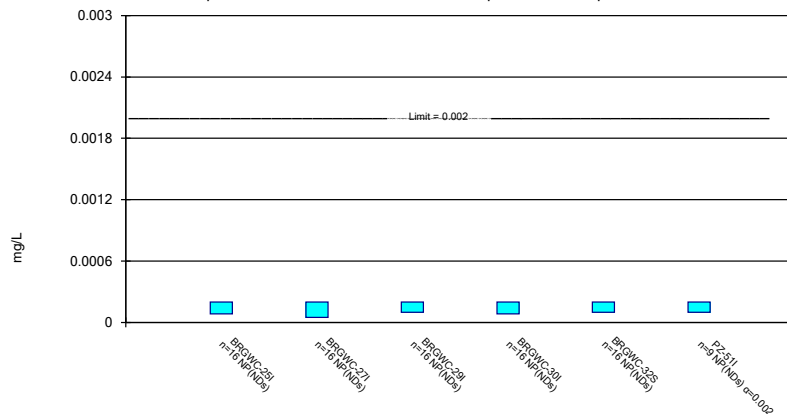
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

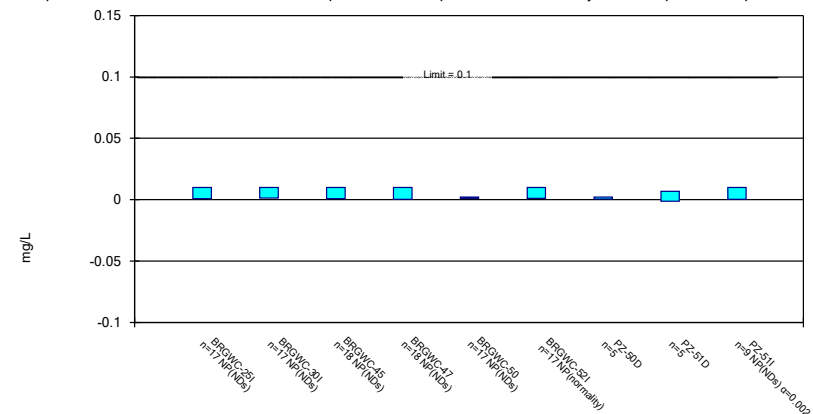
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

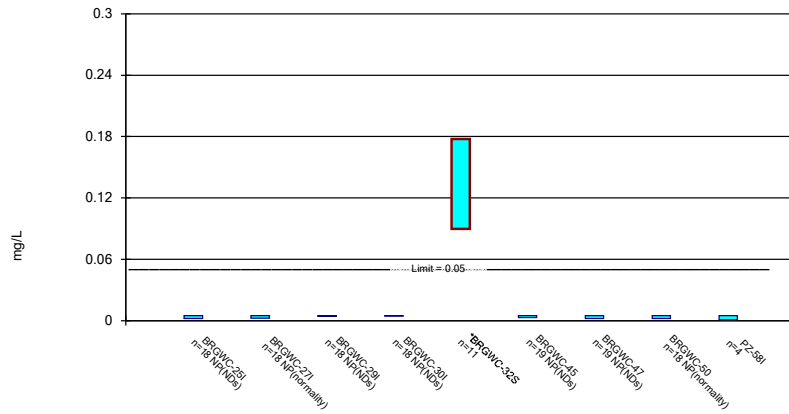
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interval  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

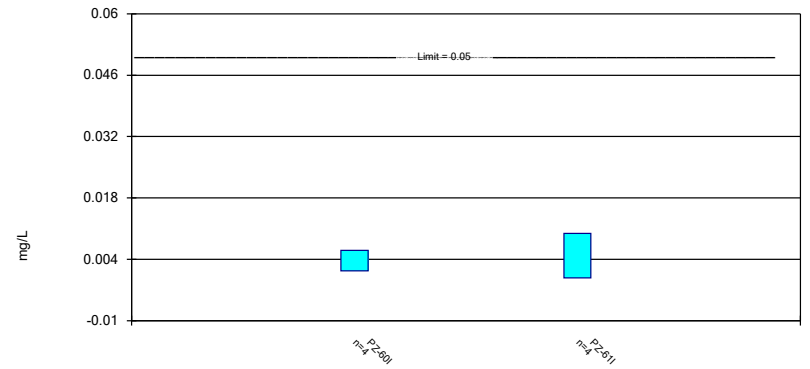
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

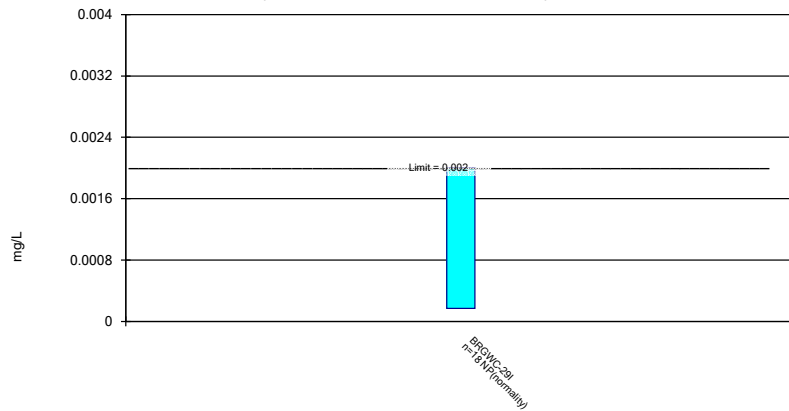
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interv  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 3/21/2023 3:24 PM View: Pond BCD Appendix IV - Confidence Interva  
Plant Branch Client: Southern Company Data: Plant Branch AP

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D
9/6/2016		<0.003							
9/8/2016	<0.003		<0.003						
11/21/2016	<0.003	<0.003	<0.003						
2/22/2017	<0.003	<0.003	<0.003						
6/14/2017	0.0007 (J)	<0.003	<0.003						
9/27/2017	<0.003	<0.003	<0.003						
2/14/2018	<0.003	<0.003	<0.003						
3/6/2018				<0.003	<0.003				
3/15/2018						<0.003			
5/1/2018				<0.003	<0.003 (D)	<0.003			
6/27/2018	<0.003		<0.003		<0.003				
6/28/2018		<0.003		<0.003		<0.003			
7/31/2018				<0.003					
8/1/2018					<0.003	<0.003			
8/10/2018							<0.003		
8/23/2018				<0.003	<0.003		0.00085 (J)		
9/19/2018				<0.003	<0.003		<0.003		
10/29/2018				<0.003	<0.003	<0.003	<0.003		
11/28/2018				<0.003	<0.003	<0.003	<0.003		
12/18/2018	<0.003	<0.003							
12/19/2018			<0.003		<0.003	<0.003			
12/20/2018				0.0024 (J)			<0.003		
1/16/2019						<0.003			
1/17/2019							<0.003		
2/13/2019							<0.003		
8/27/2019		<0.003	<0.003						
8/28/2019	<0.003			0.00046 (J)	<0.003				
8/29/2019						0.00052 (J)	<0.003		
10/16/2019	<0.003				<0.003	<0.003	<0.003		
12/3/2019				0.00088 (J)					
12/4/2019		<0.003	<0.003						
3/4/2020	<0.003				<0.003	<0.003	0.00043 (J)		
3/5/2020		<0.003	0.0014 (J)	0.0016 (J)					
8/19/2020	<0.003	<0.003	<0.003						
8/20/2020				0.0031	<0.003	<0.003	<0.003		
9/15/2020	<0.003								
9/16/2020		<0.003	<0.003	0.0012 (J)	0.00035 (J)				
9/17/2020						0.00041 (J)	<0.003		
3/2/2021				0.0014 (J)	<0.003				
3/3/2021	<0.003	<0.003							0.0013 (J)
3/4/2021			<0.003			0.00092 (J)	0.00091 (J)		
3/5/2021								0.00056 (J)	
9/23/2021				<0.003	<0.003				
9/27/2021						<0.003			
9/28/2021	<0.003	<0.003	<0.003				<0.003	<0.003	<0.003
2/2/2022		0.0013 (J)	<0.003	<0.003	<0.003		<0.003		
2/3/2022	<0.003					<0.003		<0.003	<0.003
8/23/2022					<0.003				
8/24/2022	<0.003	<0.003				<0.003			<0.003
8/25/2022			<0.003	<0.003			<0.003	<0.003	
1/24/2023			<0.003						
1/25/2023				<0.003		<0.003	<0.003		



# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D
1/26/2023	<0.003	<0.003			<0.003				<0.003
1/27/2023								<0.003	
Mean	0.002872	0.002906	0.002911	0.002476	0.002861	0.002603	0.002622	0.002512	0.00266
Std. Dev.	0.0005421	0.0004007	0.0003771	0.0008773	0.000608	0.0009186	0.0008751	0.001091	0.0007603
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0007	0.0013	0.0014	0.0014	0.00035	0.00092	0.00091	0.00056	0.0013

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-511	PZ-51S
1/18/2019		<0.003
1/19/2019	<0.003	
10/18/2019	<0.003	<0.003
8/20/2020	0.0017 (J)	<0.003
9/17/2020	<0.003	0.00043 (J)
3/3/2021		0.0018 (J)
3/4/2021	0.00079 (J)	
9/27/2021	0.0012 (J)	<0.003
2/2/2022	<0.003	<0.003
8/24/2022	<0.003	<0.003
1/26/2023	<0.003	
1/30/2023		<0.003
Mean	0.00241	0.002581
Std. Dev.	0.0009139	0.000899
Upper Lim.	0.003	0.003
Lower Lim.	0.00079	0.00043

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016				<0.005					
9/8/2016	<0.005	<0.005	<0.005		<0.005				
11/17/2016	<0.005								
11/18/2016		<0.005							
11/21/2016			0.0019 (J)	<0.005	<0.005				
2/21/2017	<0.005	<0.005							
2/22/2017			<0.005	<0.005	<0.005				
6/13/2017	0.0006 (J)	0.0009 (J)							
6/14/2017			0.002 (J)	<0.005	<0.005				
9/27/2017	<0.005	0.0007 (J)	0.0016 (J)	<0.005	<0.005				
2/14/2018	<0.005	<0.005	<0.005	<0.005	<0.005				
3/6/2018						<0.005 (X)	<0.005 (X)		
3/15/2018								0.0014 (J)	
5/1/2018						0.0021 (J)	0.0018 (JD)	<0.005	
6/26/2018	0.00072 (J)								
6/27/2018		<0.005	<0.005		<0.005		0.0016 (J)		
6/28/2018				<0.005 (X)		<0.005 (X)		<0.005	
7/31/2018						<0.005			
8/1/2018							0.0028 (J)	0.00074 (J)	
8/10/2018									<0.005
8/23/2018						0.00075 (J)	<0.005		<0.005
9/19/2018						<0.005	<0.005		0.0013 (J)
10/29/2018						<0.005	0.0012 (J)	<0.005	0.0038 (J)
11/28/2018						0.00096 (J)	0.0019 (J)	<0.005	0.0016 (J)
12/18/2018	0.00091 (J)		<0.005	<0.005					
12/19/2018					<0.005		0.00075 (J)	<0.005	
12/20/2018		<0.005				<0.005			0.0032 (J)
1/16/2019								<0.005	
1/17/2019									0.0032 (J)
2/13/2019									<0.005
8/27/2019	<0.005			<0.005	<0.005				
8/28/2019		0.0014 (J)	0.00051 (J)			0.00058 (J)	0.0018 (J)		
8/29/2019								<0.005	0.00067 (J)
10/15/2019	0.00052 (J)								
10/16/2019			0.00065 (J)				<0.005	<0.005	0.0026 (J)
12/3/2019						0.0007 (J)			
12/4/2019		0.0011 (J)		0.00056 (J)	0.00053 (J)				
3/4/2020	<0.005	<0.005	0.00044 (J)				0.00049 (J)	0.00046 (J)	0.0047 (J)
3/5/2020				<0.005	<0.005	<0.005			
8/19/2020	<0.005	<0.005	<0.005	<0.005	<0.005				
8/20/2020						<0.005	0.00089 (J)	<0.005	0.0031 (J)
9/15/2020	<0.005		<0.005						
9/16/2020		<0.005		<0.005	<0.005	<0.005	<0.005		
9/17/2020								<0.005	<0.005
3/2/2021	<0.005					<0.005	<0.005		
3/3/2021		<0.005	0.0015 (J)	<0.005					
3/4/2021					<0.005			<0.005	0.003 (J)
9/23/2021						<0.005	0.002 (J)		
9/27/2021								<0.005	
9/28/2021	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
2/2/2022	<0.005			<0.005	<0.005	<0.005	0.0056		<0.005
2/3/2022			<0.005					<0.005	

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
2/4/2022		<0.005							
8/23/2022	<0.005						0.00228 (J)		
8/24/2022			<0.005	0.00283 (J)				0.0025 (J)	
8/25/2022		<0.005			<0.005	<0.005			<0.005
1/24/2023					<0.005				
1/25/2023		<0.005				0.00225 (J)		0.00236 (J)	<0.005
1/26/2023	<0.005		<0.005	0.00208 (J)			0.0024 (J)		
Mean	0.004042	0.004117	0.003533	0.004471	0.004752	0.003807	0.002922	0.004026	0.003732
Std. Dev.	0.001846	0.001705	0.001934	0.001281	0.001054	0.001846	0.00179	0.001678	0.001464
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.002151	0.005	0.005
Lower Lim.	0.00091	0.0014	0.0015	0.00283	0.00053	0.00096	0.001064	0.00236	0.0026

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-50D	PZ-51D	PZ-51I	PZ-51S	PZ-58I	PZ-60I	PZ-61I
1/18/2019				<0.005			
1/19/2019			<0.005				
10/18/2019			<0.005	<0.005			
8/20/2020			<0.005	<0.005			
9/17/2020			<0.005	<0.005			
3/3/2021		0.0014 (J)		<0.005			
3/4/2021			<0.005				
3/5/2021	0.00087 (J)						
9/27/2021			<0.005	<0.005			0.0023 (J)
9/28/2021	<0.005	<0.005			<0.005	<0.005	
2/2/2022			<0.005	0.002 (J)			<0.005
2/3/2022	0.0012 (J)	0.0015 (J)			<0.005	<0.005	
8/24/2022		0.00308 (J)	0.00222 (J)	<0.005	0.00245 (J)	0.00358 (J)	0.00295 (J)
8/25/2022	0.00235 (J)						
1/26/2023		0.00275 (J)	<0.005		<0.005	0.00204 (J)	0.00225 (J)
1/27/2023	0.00215 (J)						
1/30/2023				<0.005			
Mean	0.002314	0.002746	0.004691	0.004667	0.004362	0.003905	0.003125
Std. Dev.	0.001625	0.001463	0.0009267	0.001	0.001275	0.001412	0.00129
Upper Lim.	0.002686	0.003427	0.005	0.005	0.005	0.004558	0.003224
Lower Lim.	0.0005992	0.0009382	0.00222	0.002	0.00245	0.001062	0.001776

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016				0.0206					
9/8/2016	0.0378	0.0184	0.0199		0.0593				
11/17/2016	0.0448								
11/18/2016		0.0173							
11/21/2016			0.0221 (J)	0.0237 (J)	0.0532 (BR)				
2/21/2017	0.0447	0.015							
2/22/2017			0.0179	0.0219	0.0498				
6/13/2017	0.0351	0.0143							
6/14/2017			0.0157	0.0197	0.0421				
9/27/2017	0.0383	0.017	0.0165	0.0213	0.0411				
2/14/2018	0.0327	0.0166	0.0163	0.0236	0.0417				
3/6/2018						0.1	0.0519		
3/15/2018								0.021	
5/1/2018						0.084	0.057 (D)	0.024	
6/26/2018	0.031								
6/27/2018		0.015	0.017		0.038		0.046		
6/28/2018				0.023		0.067		0.021	
7/31/2018						0.087 (J+X)			
8/1/2018							0.043 (J+X)	0.02 (J+X)	
8/10/2018									0.038
8/23/2018						0.084	0.038		0.03 (JX)
9/19/2018						0.086	0.036		0.03
10/29/2018						0.098 (J+X)	0.041 (J+X)	0.019 (J+X)	0.025 (J+X)
11/28/2018						0.11	0.039	0.02	0.017
12/18/2018	0.03		0.017	0.029					
12/19/2018					0.036		0.04	0.02	
12/20/2018		0.015				0.093			0.013
1/16/2019								0.02	
1/17/2019									0.017
2/13/2019									0.025
8/27/2019	0.027			0.027	0.032				
8/28/2019		0.019	0.02			0.11	0.035		
8/29/2019								0.018	0.017
10/15/2019	0.027								
10/16/2019			0.019				0.032	0.017	0.015
12/3/2019						0.099			
12/4/2019		0.016		0.021	0.028				
3/4/2020	0.026	0.015	0.018				0.038	0.019	0.022
3/5/2020				0.025	0.026	0.078			
8/19/2020	0.027	0.016	0.019	0.026	0.025				
8/20/2020						0.083	0.035	0.019	0.017
9/15/2020	0.024		0.017						
9/16/2020		0.016		0.022	0.024	0.085	0.028		
9/17/2020								0.02	0.02
3/2/2021	0.026					0.061	0.036		
3/3/2021		0.016	0.021	0.028					
3/4/2021					0.024			0.025	0.019
9/23/2021						0.064	0.031		
9/27/2021								0.017	
9/28/2021	0.023	0.013	0.017	0.035	0.02				0.013
2/2/2022	0.023			0.031	0.023	0.063	0.028		0.013
2/3/2022			0.016					0.016	

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
2/4/2022		0.015							
8/23/2022	0.0259						0.0285		
8/24/2022			0.0175	0.0389				0.0166	
8/25/2022		0.0161			0.0231	0.0574			0.0179
1/24/2023					0.0182				
1/25/2023		0.0166				0.0695		0.0165	0.0249
1/26/2023	0.0293		0.018	0.0397			0.0311		
Mean	0.0307	0.01596	0.01805	0.02647	0.03358	0.0831	0.03761	0.01939	0.02077
Std. Dev.	0.006863	0.001436	0.001783	0.006136	0.01218	0.0162	0.007828	0.00244	0.006881
Upper Lim.	0.03448	0.01683	0.01913	0.0297	0.04095	0.09258	0.04219	0.02087	0.02493
Lower Lim.	0.0265	0.01509	0.01697	0.02273	0.02622	0.07362	0.03302	0.01792	0.0166

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-50D	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
1/18/2019				0.031				
1/19/2019			0.017					
10/18/2019			0.014	0.032				
8/20/2020			0.013	0.03				
9/17/2020			0.015	0.033				
3/3/2021		0.08		0.037				
3/4/2021			0.016					
3/5/2021	0.043							
9/27/2021			0.014	0.025				0.029
9/28/2021	0.034	0.057			0.022	0.017	0.022	
2/2/2022			0.015	0.027				0.015
2/3/2022	0.033	0.057				0.016	0.021	
2/4/2022					0.024			
8/24/2022		0.0584	0.0154	0.0223		0.0181	0.0226	0.0133
8/25/2022	0.0257				0.0219			
1/26/2023		0.0481	0.0152			0.0167	0.0218	0.0125
1/27/2023	0.0315							
1/30/2023				0.023	0.022			
Mean	0.03344	0.0601	0.01496	0.02892	0.02248	0.01695	0.02185	0.01745
Std. Dev.	0.006236	0.01185	0.001182	0.004935	0.001018	0.0008737	0.0006608	0.00777
Upper Lim.	0.04389	0.07996	0.0161	0.03369	0.024	0.01893	0.02335	0.03953
Lower Lim.	0.02299	0.04024	0.01381	0.02416	0.0219	0.01497	0.02035	0.006803



# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-45	BRGWC-47	BRGWC-50	PZ-50D	PZ-51I	PZ-57I	PZ-58I
9/8/2016	0.0002 (J)	0.0011 (J)							
11/18/2016	0.0002 (J)								
11/21/2016		0.0012 (J)							
2/21/2017	0.0002 (J)								
2/22/2017		0.0014 (J)							
6/13/2017	0.0002 (J)								
6/14/2017		0.0012 (J)							
9/27/2017	0.0001 (J)	0.001 (J)							
2/14/2018	<0.0005	<0.003							
3/6/2018			<0.0005	<0.0005					
3/15/2018					<0.003				
5/1/2018			<0.0005	<0.0005 (D)	<0.003				
6/27/2018	0.00014 (J)	0.0008 (J)		<0.0005					
6/28/2018			<0.0005		0.003 (J)				
7/31/2018			<0.0005						
8/1/2018				<0.0005	0.0025 (J)				
8/23/2018			7.9E-05 (J)	5.5E-05 (J)					
9/19/2018			<0.0005	<0.0005					
10/29/2018			<0.0005	<0.0005	0.0042				
11/28/2018			<0.0005	5.6E-05 (J)	0.0029 (J)				
12/18/2018		0.00071 (J)							
12/19/2018				<0.0005 (X)	0.0043				
12/20/2018	<0.0005 (X)		<0.0005						
1/16/2019					0.0038				
1/19/2019							6.4E-05 (J)		
8/28/2019	0.00012 (J)	0.0008 (J)	<0.0005	<0.0005					
8/29/2019					0.0029 (J)				
10/16/2019		0.00072 (J)		<0.0005	0.0027 (J)				
10/17/2019	<0.0005		<0.0005						
10/18/2019							<0.0005		
12/3/2019			<0.0005						
12/4/2019	0.00012 (J)								
3/4/2020	0.00012 (J)	0.00073 (J)		<0.0005	0.0052				
3/5/2020			<0.0005						
8/19/2020	9.9E-05 (J)	0.00074 (J)							
8/20/2020			4.6E-05 (J)	4.7E-05 (J)	0.0044		7.7E-05 (J)		
9/15/2020		0.00071 (J)							
9/16/2020	0.00011 (J)		<0.0005	<0.0005					
9/17/2020					0.0065		9.6E-05 (J)		
3/2/2021			<0.0005	<0.0005					
3/3/2021	7.1E-05 (J)	0.00094							
3/4/2021					0.0059		9.7E-05 (J)		
3/5/2021						<0.0005			
9/23/2021			<0.0005	<0.0005					
9/27/2021					0.006		7.1E-05 (J)		
9/28/2021	<0.0005	0.00079				5.9E-05 (J)		0.00031 (J)	0.025
2/2/2022			<0.0005	<0.0005			7.1E-05 (J)		
2/3/2022		0.00083			0.0071	<0.0005			0.027
2/4/2022	5.4E-05 (J)							0.00054	
8/23/2022				<0.0005					
8/24/2022		0.000845			0.00831		<0.0005		0.0335
8/25/2022	<0.0005		<0.0005			0.000269 (J)		0.000393 (J)	

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-45	BRGWC-47	BRGWC-50	PZ-50D	PZ-51I	PZ-57I	PZ-58I
1/25/2023	<0.0005		<0.0005		0.00962				
1/26/2023		0.00109		<0.0005			<0.0005		0.0377
1/27/2023						<0.0005			
1/30/2023								0.000787	
Mean	0.0002492	0.0009503	0.0004563	0.0004294	0.004574	0.0003656	0.0002196	0.0005075	0.0308
Std. Dev.	0.00018	0.0002463	0.0001348	0.0001676	0.002292	0.0001984	0.0002106	0.0002092	0.005859
Upper Lim.	0.0005	0.0012	0.0005	0.0005	0.005961	0.0005	0.0005	0.0009825	0.0441
Lower Lim.	0.0001	0.00073	7.9E-05	5.6E-05	0.003187	5.9E-05	6.4E-05	3.254E-05	0.0175

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-601	PZ-611
9/27/2021		0.0017
9/28/2021	0.065	
2/2/2022		0.0015
2/3/2022	0.072	
8/24/2022	0.0703	0.00198
1/26/2023	0.0782	0.00164
Mean	0.07138	0.001705
Std. Dev.	0.00544	0.0002016
Upper Lim.	0.08372	0.002163
Lower Lim.	0.05903	0.001247

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	PZ-51I	PZ-57I	PZ-58I
9/6/2016		<0.001							
9/8/2016	7E-05 (J)		<0.001						
11/18/2016	9E-05 (J)								
11/21/2016		8E-05 (J)	8E-05 (J)						
2/21/2017	<0.001								
2/22/2017		<0.001	0.0001 (J)						
6/13/2017	<0.001								
6/14/2017		<0.001	<0.001						
9/27/2017	<0.001	<0.001	<0.001						
2/14/2018	<0.001	<0.001	<0.001						
3/6/2018				<0.001	<0.001				
3/15/2018						0.038			
5/1/2018				<0.001	<0.001 (D)	0.011			
6/27/2018	<0.001		0.00011 (J)		0.00014 (J)				
6/28/2018		<0.001		<0.001		0.087			
7/31/2018				<0.001					
8/1/2018					0.00011 (J)	0.042			
8/3/2018							0.0015		
8/23/2018				<0.001	0.00018 (J)				
9/19/2018				<0.001	0.00015 (J)				
10/29/2018				9.8E-05 (J)	0.00019 (J)	0.083			
11/28/2018				<0.001	0.00022 (J)	0.031			
12/18/2018		<0.001							
12/19/2018			<0.001 (X)		<0.001	0.042			
12/20/2018	<0.001			<0.001 (X)					
1/16/2019						0.028			
1/19/2019							0.0016		
8/27/2019		<0.001	<0.001						
8/28/2019	<0.001			<0.001	0.00017 (J)				
8/29/2019						0.0071			
10/16/2019					0.00018 (J)	0.014			
10/17/2019	<0.001	<0.001	<0.001	<0.001					
10/18/2019							0.00083 (J)		
12/3/2019				0.00011 (J)					
12/4/2019	<0.001	<0.001	<0.001						
3/4/2020	<0.001				0.00024 (J)	0.013			
3/5/2020		<0.001	<0.001	<0.001					
8/19/2020	<0.001	<0.001	<0.001						
8/20/2020				0.00014 (J)	<0.001	0.0079	0.0019 (J)		
9/16/2020	<0.001	<0.001	<0.001	<0.001	<0.001				
9/17/2020						0.021	0.033		
10/27/2020							0.0051		
3/2/2021				0.0002 (J)	<0.001				
3/3/2021	<0.001	<0.001							
3/4/2021			<0.001			0.019	0.017		
9/23/2021				<0.001	<0.001				
9/27/2021						0.0095	0.0031		
9/28/2021	<0.001	<0.001	<0.001					0.00064	0.0042
2/2/2022		0.00014 (J)	<0.001	<0.001	0.00015 (J)		0.0043		
2/3/2022						0.0085			0.0038
2/4/2022	<0.001							0.00072	
8/23/2022					<0.001				

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	PZ-51I	PZ-57I	PZ-58I
8/24/2022		<0.001				0.00818	0.00478		0.0046
8/25/2022	<0.001		<0.001	<0.001				<0.001	
1/24/2023			<0.001						
1/25/2023	<0.001			<0.001		0.00726			
1/26/2023		<0.001			<0.001		0.00101		0.00435
1/30/2023								0.00132	
Mean	0.0009032	0.0009063	0.0008574	0.0008274	0.0005647	0.02652	0.006738	0.00092	0.004238
Std. Dev.	0.0002901	0.0002808	0.0003385	0.0003546	0.0004251	0.02449	0.009827	0.0003081	0.0003351
Upper Lim.	0.001	0.001	0.001	0.001	0.001	0.03111	0.008831	0.001474	0.004998
Lower Lim.	9E-05	0.00014	0.00011	0.0002	0.00017	0.01142	0.001307	0.0002059	0.003477

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-60I	PZ-61I
9/27/2021		0.00081
9/28/2021	0.016	
2/2/2022		0.00014 (J)
2/3/2022	0.016	
8/24/2022	0.017	0.000859 (J)
1/26/2023	0.0152	0.000517 (J)
Mean	0.01605	0.0005815
Std. Dev.	0.0007371	0.0003308
Upper Lim.	0.01772	0.001333
Lower Lim.	0.01438	-0.0001695

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016				<0.01					
9/8/2016	<0.01	0.001 (J)	<0.01		<0.01				
11/17/2016	<0.01								
11/18/2016		<0.01							
11/21/2016			<0.01	<0.01	<0.01				
2/21/2017	<0.01	<0.01							
2/22/2017			<0.01	<0.01	0.0012 (J)				
6/13/2017	<0.01	<0.01							
6/14/2017			<0.01	<0.01	0.0009 (J)				
9/27/2017	<0.01	<0.01	<0.01	<0.01	0.0011 (J)				
2/14/2018	<0.01	<0.01	<0.01	<0.01	<0.01				
3/6/2018						<0.01	<0.01		
3/15/2018								<0.01	
5/1/2018						<0.01	<0.01 (D)	<0.01	
6/26/2018	<0.01								
6/27/2018		<0.01	<0.01		<0.01		<0.01		
6/28/2018				<0.01		<0.01		0.0023 (J)	
7/31/2018						<0.01			
8/1/2018							<0.01	0.0046 (J)	
8/10/2018									0.0017 (J)
8/23/2018						<0.01	<0.01		<0.01
9/19/2018						<0.01	<0.01		<0.01
10/29/2018						<0.01	<0.01	<0.01	<0.01
11/28/2018						<0.01	<0.01	<0.01	<0.01
12/18/2018	<0.01		<0.01	<0.01					
12/19/2018					<0.01		0.0018 (J)	<0.01	
12/20/2018		0.003 (J)				<0.01			<0.01
1/16/2019								<0.01	
1/17/2019									<0.01
2/13/2019									<0.01
8/27/2019	0.0016 (J)			0.0051 (J)	0.0019 (J)				
8/28/2019		<0.01	<0.01			<0.01	0.00092 (J)		
8/29/2019								<0.01	<0.01
10/15/2019	0.00098 (J)								
10/16/2019			<0.01				<0.01	0.0005 (J)	<0.01
12/3/2019						<0.01			
12/4/2019		<0.01		<0.01	0.0014 (J)				
3/4/2020	<0.01	<0.01	0.02				0.00078 (J)	0.00071 (J)	<0.01
3/5/2020				<0.01	0.0014 (J)	0.00053 (J)			
8/19/2020	<0.01	<0.01	<0.01	<0.01	0.0021 (J)				
8/20/2020						0.001 (J)	0.00064 (J)	0.00065 (J)	<0.01
9/15/2020	<0.01		<0.01						
9/16/2020		<0.01		0.014	0.0025 (J)	0.0014 (J)	<0.01		
9/17/2020								0.00098 (J)	<0.01
3/2/2021	<0.01					<0.01	<0.01		
3/3/2021		<0.01	<0.01	<0.01					
3/4/2021					0.002 (J)			0.001 (J)	<0.01
9/23/2021						<0.01	<0.01		
9/27/2021								<0.01	
9/28/2021	<0.01	<0.01	<0.01	<0.01	0.0021 (J)				<0.01
2/2/2022	<0.01			<0.01	0.0021 (J)	<0.01	<0.01		<0.01
2/3/2022			<0.01					<0.01	

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
2/4/2022		<0.01							
8/23/2022	<0.01						<0.01		
8/24/2022			<0.01	<0.01				<0.01	
8/25/2022		<0.01			<0.01	<0.01			<0.01
1/24/2023					<0.01				
1/25/2023		<0.01				<0.01		<0.01	<0.01
1/26/2023	<0.01		<0.01	<0.01			<0.01		
Mean	0.009032	0.009111	0.01056	0.00995	0.004928	0.008575	0.008113	0.006708	0.009539
Std. Dev.	0.002819	0.00261	0.002357	0.001533	0.004182	0.003384	0.003761	0.004337	0.001956
Upper Lim.	0.01	0.01	0.02	0.014	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.0016	0.003	0.01	0.0051	0.0014	0.0014	0.0018	0.00098	0.0017



# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-511	PZ-51S	PZ-611
1/18/2019		<0.01	
1/19/2019	<0.01		
10/18/2019	<0.01	0.00042 (J)	
8/20/2020	<0.01	0.00063 (J)	
9/17/2020	0.00098 (J)	<0.01	
3/3/2021		<0.01	
3/4/2021	0.0008 (J)		
9/27/2021	<0.01	<0.01	0.0077
2/2/2022	<0.01	<0.01	<0.01
8/24/2022	<0.01	<0.01	<0.01
1/26/2023	<0.01		<0.01
1/30/2023		<0.01	
Mean	0.007976	0.007894	0.009425
Std. Dev.	0.004017	0.004178	0.00115
Upper Lim.	0.01	0.01	0.01
Lower Lim.	0.0008	0.00042	0.0077

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016				0.0006 (J)					
9/8/2016	0.0073 (J)	0.0149	0.0122		0.0025 (J)				
11/17/2016	0.0086 (J)								
11/18/2016		0.0131							
11/21/2016			0.0122	<0.04	0.001 (J)				
2/21/2017	0.0079 (J)	0.0099 (J)							
2/22/2017			0.0136	0.0016 (J)	<0.001				
6/13/2017	0.0083 (J)	0.0094 (J)							
6/14/2017			0.0113	0.0015 (J)	<0.001				
9/27/2017	0.0087 (J)	0.0095 (J)	0.0094 (J)	0.0007 (J)	<0.001				
2/14/2018	<0.01	0.0112	<0.01	<0.04	<0.001				
3/6/2018						0.0162	<0.001		
3/15/2018								1.3	
5/1/2018						0.015	0.0125 (D)	1.4	
6/26/2018	0.006 (J)								
6/27/2018		0.0093 (J)	0.0069 (J)		<0.001		0.0076 (J)		
6/28/2018				0.00078 (J)		0.01		1.3	
7/31/2018						0.0098 (J)			
8/1/2018							0.004 (J)	1.4	
8/10/2018									0.0043 (J)
8/23/2018						0.0093 (J)	0.0016 (J)		0.0026 (J)
9/19/2018						0.0084 (J)	0.0018 (J)		0.0028 (J)
10/29/2018						0.0064 (J)	0.0014 (J)	1.4	0.0015 (J)
11/28/2018						0.0071 (J)	0.0016 (J)	1.4	0.0012 (J)
12/18/2018	0.0055 (J)		0.0067 (J)	0.0011 (J)					
12/19/2018					<0.001		0.0014 (J)	1.5	
12/20/2018		0.0081 (J)				0.069			<0.001
1/16/2019								1.4	
1/17/2019									<0.001
2/13/2019									<0.001
8/27/2019	0.0042 (J)			0.0014 (J)	<0.001				
8/28/2019		0.01	0.0061			0.011	0.00037 (J)		
8/29/2019								1.3	0.00063 (J)
10/15/2019	0.0043 (J)								
10/16/2019			0.0058				0.00032 (J)	1.4	<0.001
10/17/2019		0.011 (J)		<0.04	<0.001	0.0098 (J)			
12/3/2019						0.0076			
12/4/2019		0.0086		0.0012 (J)	<0.001				
3/4/2020	0.0039 (J)	0.008	0.007				0.0011 (J)	1.5	<0.001
3/5/2020				0.0011 (J)	<0.001	0.0091			
8/19/2020	0.0039 (J)	0.0078	0.0065	0.0008 (J)	<0.001				
8/20/2020						0.022	0.00043 (J)	1.4	<0.001
9/15/2020	0.0035 (J)		0.0064						
9/16/2020		0.008		0.0008 (J)	<0.001	0.0049 (J)	0.00053 (J)		
9/17/2020								1.4	0.00046 (J)
3/2/2021	0.003 (J)					0.0057	0.0005 (J)		
3/3/2021		0.0062	0.0095	0.0015 (J)					
3/4/2021					<0.001			1.4	<0.001
9/23/2021						0.0049 (J)	<0.001		
9/27/2021								1.3	
9/28/2021	0.0029 (J)	0.0047 (J)	0.0069	0.001 (J)	<0.001				<0.001
2/2/2022	0.0027 (J)			0.0012 (J)	<0.001	0.0054	<0.001		<0.001

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
2/3/2022			0.0077					1.5	
2/4/2022		0.0076							
8/23/2022	0.00342						<0.001		
8/24/2022			0.0066	0.00163				1.42	
8/25/2022		0.0079			<0.001	0.00357			<0.001
1/24/2023					<0.001				
1/25/2023		0.00711				0.00258		1.35	<0.001
1/26/2023	0.0032		0.00823	0.00158			0.000376 (J)		
Mean	0.005129	0.009069	0.008224	0.007289	0.001079	0.01189	0.00208	1.393	0.001361
Std. Dev.	0.002134	0.002359	0.002547	0.01456	0.0003441	0.01421	0.00304	0.06506	0.0009415
Upper Lim.	0.006179	0.01045	0.009583	0.00163	0.0025	0.01302	0.001618	1.42	0.0015
Lower Lim.	0.003753	0.007688	0.006654	0.0008	0.001	0.005847	0.0004568	1.35	0.00063

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-50D	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
8/2/2018				0.0079 (J)				
8/3/2018			0.041					
1/18/2019				0.0082 (J)				
1/19/2019			0.018					
10/18/2019			0.017	0.0063				
8/20/2020			0.02	0.0039 (J)				
9/17/2020			0.022	0.0062				
10/27/2020	0.0037 (J)	0.00041 (J)	0.02					
3/3/2021		0.0004 (J)		0.005				
3/4/2021			0.019					
3/5/2021	0.0038 (J)							
9/27/2021			0.02	0.0022 (J)				0.45
9/28/2021	0.2	<0.001			0.055	0.39	3.5	
2/2/2022			0.023	0.0028 (J)				0.51
2/3/2022	0.1	<0.001				0.43	3.4	
2/4/2022					0.094			
8/24/2022		0.000306 (J)	0.0239	0.00193		0.503	3.57	0.562
8/25/2022	0.506				0.0194			
1/26/2023		<0.001	0.0231			0.518	3.64	0.604
1/27/2023	0.0728							
1/30/2023				0.00115	0.151			
Mean	0.1477	0.000686	0.02245	0.004558	0.07985	0.4603	3.528	0.5315
Std. Dev.	0.19	0.0003459	0.006531	0.002538	0.05637	0.06059	0.1024	0.06656
Upper Lim.	0.4233	0.001	0.0239	0.006822	0.2078	0.5978	3.76	0.6826
Lower Lim.	-0.0007998	0.000306	0.018	0.002294	-0.04814	0.3227	3.295	0.3804

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016				1.01 (U)					
9/8/2016	0.862 (U)	1.74	1.13		0.706 (U)				
11/17/2016	1.2 (U)								
11/18/2016		0.571 (U)							
11/21/2016			1.59	0.201 (U)	0.0569 (U)				
2/21/2017	1.31	1.28 (U)							
2/22/2017			1.64	0.57 (U)	1.07 (U)				
6/13/2017	0.738 (U)	0.521 (U)							
6/14/2017			1.32	0.726 (U)	0.459 (U)				
9/27/2017	0.583 (U)	0.595 (U)	1.7	0.884 (U)	0.807 (U)				
2/14/2018	1.41 (J+X)	1.18 (U)	1.89 (J+X)	1.14 (U)	1.67 (J+X)				
3/6/2018						1.25 (U)	1.75 (J+X)		
3/15/2018								1.31	
5/1/2018						0.423 (U)	2.02 (J+XD)	1.69 (J+X)	
6/26/2018	0.968 (U)								
6/27/2018		1.3 (U)	1.66 (J+X)		1.34 (UX)		0.878 (U)		
6/28/2018				1.4 (UX)		0.283 (U)		1.04 (U)	
7/31/2018						0.243 (U)			
8/1/2018							0.638 (U)	1.67	
8/10/2018									1.91
8/23/2018						1.1 (U)	1.14 (U)		1.86 (J+X)
9/19/2018						0.369 (U)	1.45 (UX)		1.64 (UX)
10/29/2018						0.401 (U)	1.09 (U)	0.992 (U)	1.36 (U)
11/28/2018						0.901 (U)	1.67 (UX)	1.76 (UX)	1.07 (U)
12/18/2018	1.13 (U)		0.759 (U)	0.661 (U)					
12/19/2018					1.21 (U)		1.3	2.15 (J+X)	
12/20/2018		0.527 (U)				0.657 (U)			0.892 (U)
1/16/2019								1.39	
1/17/2019									1.1 (U)
2/13/2019									1.68
8/27/2019	0.91 (U)			1.35	0.86 (U)				
8/28/2019		0.643 (U)	1.76			0.528 (U)	0.804 (U)		
8/29/2019								1.33	1.44
10/15/2019	1.06 (U)								
10/16/2019			1.69 (U)				1.28 (U)	2.51	2.13
10/17/2019		1.07 (U)		1.25 (U)	1.2 (U)	0.977 (U)			
3/4/2020	1.34	1.18	1.23				0.862 (U)	1.73	2.3
3/5/2020				1.35	0.483 (U)	0.921 (U)			
8/19/2020	0.467 (U)	0.684 (U)	0.876 (U)	1 (U)	0.482 (U)				
8/20/2020						0.501 (U)	1.64	2.78	2.97
9/15/2020	0.205 (U)		1.23 (U)						
9/16/2020		0.175 (U)		0.43 (U)	0.195 (U)	0.254 (U)	0.51 (U)		
9/17/2020								0.717 (U)	2.04
3/2/2021	0.161 (U)					0.107 (U)	0.571 (U)		
3/3/2021		0.829 (U)	1.31 (U)	0.415 (U)					
3/4/2021					0.32 (U)			1.22	2.04
9/23/2021						0.619 (U)	0.527 (U)		
9/27/2021								2.07	
9/28/2021	4.44	3.58	1.49	0.749 (U)	0.947 (U)				3.28
2/2/2022	0.64 (U)			1.21 (U)	0.0265 (U)	0.219 (U)	0.145 (U)		2.33
2/3/2022			0.798 (U)					1.15	
2/4/2022		0.335 (U)							

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/23/2022	1.9						3.74		
8/24/2022			1.97	3.26				1.87	
8/25/2022		1.79			1.32	1.65			4.97
1/24/2023					2.25				
1/25/2023		1.53 (U)				1.29 (U)		5.71	7.94
1/26/2023	3.24		2.27 (U)	2.73 (U)			3.28		
Mean	1.254	1.085	1.462	1.13	0.8557	0.6681	1.331	1.838	2.386
Std. Dev.	1.056	0.7821	0.4144	0.7702	0.5874	0.4332	0.9148	1.105	1.682
Upper Lim.	1.679	1.425	1.713	1.473	1.211	0.9217	1.728	2.167	2.821
Lower Lim.	0.6269	0.6104	1.211	0.6591	0.5003	0.4144	0.763	1.237	1.472

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-50D	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
1/18/2019				1.22				
1/19/2019			1.86					
10/18/2019			11.7 (U)	17.1 (U)				
8/20/2020			0.937 (U)	1.19				
9/17/2020			1.76	0.952 (U)				
3/3/2021		2.54		0.599 (U)				
3/4/2021			0.966 (U)					
3/5/2021	2.11							
9/27/2021			0.771 (U)	0.00107 (U)				1.14 (U)
9/28/2021	1.05	1.89			0.0352 (U)	1.66	2.79	
2/2/2022			0.992 (U)	0.0266 (U)				1.16
2/3/2022	1	2.23				1.33	2.46	
2/4/2022					0.229 (U)			
8/24/2022		3.33	0.625	1.2		1.16	3.5	2.91
8/25/2022	2.26				0.773			
1/26/2023		3.7	1.53 (U)			4.03	5.31	3.2
1/27/2023	2.66 (U)							
1/30/2023				3.19	3.27			
Mean	1.816	2.738	2.349	2.831	1.077	2.045	3.515	2.103
Std. Dev.	0.7498	0.757	3.534	5.432	1.495	1.34	1.273	1.106
Upper Lim.	3.072	4.007	11.7	5.233	4.471	5.52	6.405	4.614
Lower Lim.	0.5596	1.469	0.625	0.04967	-2.318	0.1711	0.625	-0.409

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
9/6/2016				0.43					
9/8/2016	0.14 (J)	0.31	0.2 (J)		0.15 (J)				
11/17/2016	0.27 (J)								
11/18/2016		0.19 (J)							
11/21/2016			0.37	0.24 (J)	0.04 (J)				
2/21/2017	0.6	0.35							
2/22/2017			0.37	0.2 (J)	0.08 (J)				
6/13/2017	0.19 (J)	0.19 (J)							
6/14/2017			0.38	0.15 (J)	0.09 (J)				
9/27/2017	0.5	0.4	0.4	0.41	<0.1				
2/14/2018	<0.3	<0.3	<0.3	<0.3	<0.1				
3/6/2018						0.94	1.1		
3/15/2018								0.84 (JX)	
5/1/2018						<0.1	0.595 (D)	0.91	
6/26/2018	0.15 (J)								
6/27/2018		0.26 (J)	0.085 (J)		<0.1		0.27 (J)		
6/28/2018				0.93 (J+X)		0.69 (J+X)		1.1 (J+X)	
7/31/2018						<0.1			
8/1/2018							0.48	2	
8/10/2018									1.6 (O)
8/23/2018						<0.1	0.34		0.32
9/19/2018						<0.1	0.23 (J)		0.22 (J)
10/29/2018						<0.1	<0.1	0.24 (J)	0.14 (J)
11/28/2018						<0.1	0.063 (J)	0.41	0.24 (J)
12/18/2018	0.29 (J)		0.26 (J)	0.54					
12/19/2018					0.23 (J)		0.28 (J)	0.54	
12/20/2018		0.26 (J)				0.12 (J)			0.3
1/16/2019								1.1	
1/17/2019									0.23 (J)
2/13/2019									<0.3
3/19/2019		0.2 (J)					<0.1		
3/20/2019	0.17 (JD)		0.091 (J)	0.31	<0.1	0.066 (J)		0.21 (J)	0.135 (JD)
8/27/2019	0.15 (J)			0.12 (J)	<0.1				
8/28/2019		0.074 (J)	0.055 (J)			<0.1	<0.1		
8/29/2019								0.41	0.087 (J)
10/15/2019	0.16 (J)								
10/16/2019			0.11 (J)				0.076 (J)	0.39	0.22 (J)
12/3/2019						0.19 (J)			
12/4/2019		0.18 (J)		0.26 (J)	0.11 (J)				
3/4/2020	0.07 (J)	<0.3	<0.3				<0.1	0.14 (J)	0.1 (J)
3/5/2020				0.051 (J)	<0.1	<0.1			
8/19/2020	0.17	0.19	0.12	0.14	<0.1				
8/20/2020						<0.1	<0.1	0.39	0.23
9/15/2020	0.15		0.057 (J)						
9/16/2020		0.15		0.13	<0.1	0.052 (J)	<0.1		
9/17/2020								0.46	0.074 (J)
3/2/2021	0.15					0.067 (J)	<0.1		
3/3/2021		0.24	0.13	0.13					
3/4/2021					<0.1			0.6	0.28
9/23/2021						0.06 (J)	<0.1		
9/27/2021								0.43	
9/28/2021	0.15	0.16	0.081 (J)	0.11	<0.1				0.12



# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
2/2/2022	0.15			0.1	<0.1	<0.1	<0.1		0.098 (J)
2/3/2022			0.11					0.42	
2/4/2022		0.14							
8/23/2022	0.186						<0.1		
8/24/2022			0.103	0.318				0.497	
8/25/2022		0.234			0.138	0.166			0.157
1/24/2023					0.082 (J)				
1/25/2023		0.152				0.163		0.432	0.169
1/26/2023	0.202		0.0935 (J)	0.167			0.117		
Mean	0.2104	0.2095	0.1745	0.2572	0.1063	0.1757	0.2276	0.6063	0.1817
Std. Dev.	0.1297	0.07973	0.1191	0.2083	0.03698	0.225	0.2515	0.434	0.07574
Upper Lim.	0.27	0.2562	0.2074	0.3248	0.11	0.163	0.28	0.7597	0.2275
Lower Lim.	0.15	0.1628	0.0983	0.1385	0.09	0.067	0.1	0.3559	0.1358

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-50D	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
1/18/2019				0.13 (J)				
1/19/2019			<0.1					
10/18/2019			<0.1	0.09 (J)				
8/20/2020			<0.1	0.056 (J)				
9/17/2020			<0.1	0.062 (J)				
10/27/2020	0.28	0.21	<0.1					
3/3/2021		0.28		0.083 (J)				
3/4/2021			0.061 (J)					
3/5/2021	0.16							
9/27/2021			<0.1	0.072 (J)				0.067 (J)
9/28/2021	0.11	0.26			0.085 (J)	0.97	1.6	
2/2/2022			<0.1	0.053 (J)				<0.1
2/3/2022	0.15	0.27				1.8	2.3	
2/4/2022					0.096 (J)			
8/24/2022		0.318	0.148	0.131		1.09	1.32	0.103
8/25/2022	0.106				0.235			
1/26/2023		0.354	0.12			1.19	1.66	0.184
1/27/2023	0.151 (J)							
1/30/2023				0.0983 (J)	0.297			
Mean	0.1595	0.282	0.1029	0.08614	0.1783	1.263	1.72	0.1135
Std. Dev.	0.06324	0.04959	0.02145	0.02936	0.1045	0.3694	0.4141	0.04975
Upper Lim.	0.2446	0.3501	0.12	0.1145	0.4156	2.101	2.66	0.2137
Lower Lim.	0.08577	0.2139	0.1	0.05779	-0.05908	0.4237	0.7799	-0.003234

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016				<0.002					
9/8/2016	<0.002	<0.002	0.0004 (J)						
11/17/2016	<0.002								
11/18/2016		<0.002							
11/21/2016			0.0006 (J)	<0.002					
2/21/2017	<0.002	<0.002							
2/22/2017			0.0005 (J)	<0.002					
6/13/2017	<0.002	<0.002							
6/14/2017			0.0004 (J)	<0.002					
9/27/2017	<0.002	<0.002	0.0006 (J)	<0.002					
2/14/2018	<0.002	<0.002	<0.005 (o)	<0.002					
3/6/2018					<0.002	<0.002			
3/15/2018							<0.002		
5/1/2018					<0.002	<0.002 (D)	<0.002		
6/26/2018	<0.002								
6/27/2018		<0.002	0.00032 (J)			<0.002			
6/28/2018				<0.002	<0.002		0.00054 (J)		
7/31/2018					<0.002				
8/1/2018						<0.002	<0.002		
8/10/2018								<0.002	
8/23/2018					<0.002	<0.002		<0.002	
9/19/2018					<0.002	<0.002		<0.002	
10/29/2018					<0.002	<0.002	0.0003 (J)	<0.002	
11/28/2018					<0.002	<0.002	<0.002	<0.002	
12/18/2018	<0.002		0.00038 (J)	<0.002					
12/19/2018						<0.002	<0.002		
12/20/2018		<0.002			<0.002			<0.002	
1/16/2019							<0.002		
1/17/2019								<0.002	
2/13/2019								<0.002	
8/27/2019	0.00011 (J)			<0.002					
8/28/2019		<0.002	0.00027 (J)		<0.002	<0.002			
8/29/2019							4.9E-05 (J)	<0.002	
10/15/2019	<0.002								
10/16/2019			0.00027 (J)			<0.002	8.5E-05 (J)	<0.002	
12/3/2019					<0.002				
12/4/2019		6.3E-05 (J)		<0.002					
3/4/2020	<0.002	<0.002	0.0003 (J)			0.00012 (J)	0.0001 (J)	<0.002	
3/5/2020				<0.002	0.00026 (J)				
8/19/2020	<0.002	<0.002	0.00025 (J)	<0.002					
8/20/2020					0.00021 (J)	4.8E-05 (J)	6.7E-05 (J)	<0.002	
9/15/2020	<0.002		0.00029 (J)						
9/16/2020		<0.002		0.00011 (J)	5.3E-05 (J)	6.6E-05 (J)			
9/17/2020							0.00015 (J)	<0.002	
3/2/2021	<0.002				<0.002	<0.002			
3/3/2021		<0.002	0.00033 (J)	<0.002					
3/4/2021							0.00016 (J)	4.2E-05 (J)	
3/5/2021									5.6E-05 (J)
9/23/2021					<0.002	<0.002			
9/27/2021							<0.002		
9/28/2021	<0.002	<0.002	<0.002	<0.002				<0.002	<0.002
2/2/2022	<0.002			<0.002	<0.002	<0.002		<0.002	

# Confidence Interval

Constituent: Lead (mg/L)    Analysis Run 3/21/2023 3:26 PM    View: Pond BCD Appendix IV - Confidence Intervals  
 Plant Branch    Client: Southern Company    Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
2/3/2022			<0.002				<0.002		<0.002
2/4/2022		<0.002							
8/23/2022	<0.002					<0.002			
8/24/2022			<0.002	<0.002			<0.002		
8/25/2022		<0.002			<0.002			<0.002	<0.002
1/25/2023		<0.002			0.000595 (J)		<0.002	<0.002	
1/26/2023	<0.002		<0.002	<0.002		<0.002			
1/27/2023									<0.002
Mean	0.001895	0.001892	0.0007594	0.001895	0.001638	0.001697	0.001192	0.001891	0.001611
Std. Dev.	0.0004455	0.0004566	0.0007169	0.0004455	0.0007266	0.0007202	0.0009359	0.0004615	0.0008694
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Lower Lim.	0.00011	6.3E-05	0.00029	0.00011	0.000595	0.00012	0.0001	4.2E-05	5.6E-05

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-58I	PZ-61I
1/19/2019		<0.002		
10/18/2019		<0.002		
8/20/2020		<0.002		
9/17/2020		0.00036 (J)		
3/3/2021	0.00013 (J)			
3/4/2021		0.00017 (J)		
9/27/2021		<0.002		0.0019
9/28/2021	<0.002		<0.005	
2/2/2022		<0.002		<0.002
2/3/2022	<0.002		<0.005	
8/24/2022	<0.002	<0.002	0.000894 (J)	0.00113 (J)
1/26/2023	<0.002	<0.002	0.000895 (J)	<0.002
Mean	0.001626	0.001614	0.002947	0.001758
Std. Dev.	0.0008363	0.0007665	0.00237	0.000421
Upper Lim.	0.002	0.002	0.005	0.002056
Lower Lim.	0.00013	0.00017	0.000894	-0.001726

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
9/6/2016			0.0117 (J)						
9/8/2016	0.0021 (J)	0.004 (J)		<0.05					
11/18/2016	<0.01								
11/21/2016		0.0039 (J)	0.0108 (J)	<0.05					
2/21/2017	<0.01								
2/22/2017		0.0043 (J)	0.0103 (J)	0.0023 (J)					
6/13/2017	0.0017 (J)								
6/14/2017		0.0036 (J)	0.0101 (J)	0.0022 (J)					
9/27/2017	0.0016 (J)	0.0038 (J)	0.0116 (J)	0.0021 (J)					
2/14/2018	0.0018 (J)	0.0034 (J)	0.0115 (J)	0.0023 (J)					
3/6/2018					0.0031 (J)	0.0399 (J)			
3/15/2018							0.038 (J)		
5/1/2018					0.0038 (J)	0.0475 (JD)	0.042 (J)		
6/27/2018	0.0016 (J)	0.0034 (J)		0.0023 (J)		0.044 (J)			
6/28/2018			0.013 (J)		0.0028 (J)		0.04 (J)		
7/31/2018					<0.25 (o)				
8/1/2018						0.039 (J)	0.036 (J)		
8/10/2018								0.0087 (J)	
8/23/2018					0.0033 (J)	0.044 (J)		0.0089 (J)	
9/19/2018					0.0033 (J)	0.043 (J)		0.005 (J)	
10/29/2018					0.003 (J)	0.039 (J)	0.041 (J)	0.0048 (J)	
11/28/2018					0.0035 (J)	0.044 (J)	0.041 (J)	0.0052 (J)	
12/18/2018		0.0032 (J)	0.014 (J)						
12/19/2018				0.0018 (J)		0.043 (J)	0.043 (J)		
12/20/2018	0.0015 (J)				0.003 (J)			0.0042 (J)	
1/16/2019							0.042 (J)		
1/17/2019								0.0039 (J)	
2/13/2019								<0.05	
8/27/2019			0.016 (J)	0.0022 (J)					
8/28/2019	0.0016 (J)	0.0033 (J)			0.0034 (J)	0.044			
8/29/2019							0.039	0.0052 (J)	
10/16/2019		0.0029 (J)				0.038	0.034	0.0023 (J)	
12/3/2019					0.0033 (J)				
12/4/2019	0.0014 (J)		0.013 (J)	0.0022 (J)					
3/4/2020	0.0014 (J)	0.0029 (J)				0.042	0.042	0.002 (J)	
3/5/2020			0.016 (J)	0.0022 (J)	0.003 (J)				
8/19/2020	0.0014 (J)	0.0029 (J)	0.018 (J)	0.002 (J)					
8/20/2020					0.0034 (J)	0.044	0.04	0.0022 (J)	
9/15/2020		0.003 (J)							
9/16/2020	0.0014 (J)		0.016 (J)	0.0022 (J)	0.0036 (J)	0.039			
9/17/2020							0.052	0.0058 (J)	
3/2/2021					0.0043 (J)	0.044			
3/3/2021	0.0012 (J)	0.0032 (J)	0.014 (J)						
3/4/2021				0.002 (J)			0.05	0.003 (J)	
3/5/2021									0.019 (J)
9/23/2021					0.0023 (J)	0.042			
9/27/2021							0.038		
9/28/2021	0.0011 (J)	0.0029 (J)	0.023 (J)	0.0021 (J)				0.0035 (J)	0.02 (J)
2/2/2022			0.021 (J)	0.0035 (J)	0.0022 (J)	0.04		0.0041 (J)	
2/3/2022		0.0026 (J)					0.038		0.024 (J)
2/4/2022	0.001 (J)								
8/23/2022						0.0474			

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D
8/24/2022		0.00304 (J)	0.0238				0.0428		
8/25/2022	<0.01			0.0043 (J)	<0.01			0.0162	0.0255
1/24/2023				0.007 (J)					
1/25/2023	<0.01				0.00333 (J)		0.0542	0.0186	
1/26/2023		0.00331 (J)	0.0279			0.0506			
1/27/2023									0.0274
Mean	0.003378	0.003314	0.01565	0.00515	0.003313	0.04286	0.04183	0.007144	0.02318
Std. Dev.	0.003651	0.0004547	0.005183	0.007326	0.0006443	0.003305	0.005319	0.006372	0.003586
Upper Lim.	0.0021	0.003589	0.01838	0.0043	0.003703	0.0448	0.04481	0.008377	0.02919
Lower Lim.	0.0012	0.003039	0.01247	0.0021	0.002923	0.04093	0.03861	0.003492	0.01717

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
1/18/2019			0.0012 (J)				
1/19/2019		0.019 (J)					
10/18/2019		0.019 (J)	<0.01				
8/20/2020		0.019 (J)	<0.01				
9/17/2020		0.021 (J)	<0.01				
3/3/2021	0.0093 (J)		<0.01				
3/4/2021		0.026 (J)					
9/27/2021		0.02 (J)	<0.01				0.0095 (J)
9/28/2021	0.0096 (J)			0.018 (J)	0.041	0.1	
2/2/2022		0.021 (J)	<0.01				0.011 (J)
2/3/2022	0.0096 (J)				0.041	0.098	
2/4/2022				0.026 (J)			
8/24/2022	0.0042 (J)	0.0222	<0.01		0.0488	0.101	0.00913 (J)
8/25/2022				0.0231			
1/26/2023	0.00883 (J)	0.0247			0.0553	0.114	0.0123
1/30/2023			<0.01	0.0359			
Mean	0.008306	0.02132	0.009022	0.02575	0.04653	0.1033	0.01048
Std. Dev.	0.002317	0.002554	0.002933	0.007531	0.00691	0.007274	0.001457
Upper Lim.	0.01013	0.02379	0.01	0.04285	0.06221	0.1204	0.01379
Lower Lim.	-0.004012	0.01886	0.0012	0.008651	0.03084	0.08824	0.007175



# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	PZ-511
9/6/2016				<0.0002		
9/8/2016	<0.0002	<0.0002	<0.0002		<0.0002	
11/17/2016	<0.0002					
11/18/2016		<0.0002				
11/21/2016			<0.0002	<0.0002	<0.0002	
2/21/2017	<0.0002	<0.0002				
2/22/2017			<0.0002	<0.0002	<0.0002	
6/13/2017	<0.0002	5E-05 (J)				
6/14/2017			7E-05 (J)	7E-05 (J)	9E-05 (J)	
9/27/2017	4E-05 (J)	4.7E-05 (J)	4E-05 (J)	4E-05 (J)	0.0001 (J)	
2/14/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
6/26/2018	<0.0002					
6/27/2018		<0.0002	<0.0002		<0.0002	
6/28/2018				<0.0002		
12/18/2018	<0.0002		<0.0002	<0.0002		
12/19/2018					<0.0002	
12/20/2018		<0.0002				
1/19/2019						<0.0002
8/27/2019	<0.0002			<0.0002	<0.0002	
8/28/2019		<0.0002	<0.0002			
10/18/2019						<0.0002
8/19/2020	8.3E-05 (J)	<0.0002	9.8E-05 (J)	8.2E-05 (J)	8.2E-05 (J)	
8/20/2020						9.9E-05 (J)
9/15/2020	<0.0002		<0.0002			
9/16/2020		<0.0002		<0.0002	<0.0002	
9/17/2020						<0.0002
3/2/2021	<0.0002					
3/3/2021		<0.0002	<0.0002	<0.0002		
3/4/2021					<0.0002	<0.0002
9/27/2021						<0.0002
9/28/2021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
2/2/2022	<0.0002			<0.0002	<0.0002	<0.0002
2/3/2022			<0.0002			
2/4/2022		<0.0002				
8/23/2022	<0.0002					
8/24/2022			<0.0002	<0.0002		<0.0002
8/25/2022		<0.0002			<0.0002	
1/24/2023					<0.0002	
1/25/2023		<0.0002				
1/26/2023	<0.0002		<0.0002	<0.0002		<0.0002
Mean	0.0001827	0.0001811	0.0001755	0.0001745	0.0001795	0.0001888
Std. Dev.	4.795E-05	5.175E-05	5.373E-05	5.539E-05	4.42E-05	3.367E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	8.3E-05	5E-05	9.8E-05	8.2E-05	0.0001	9.9E-05

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-30I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
9/6/2016		<0.01							
9/8/2016	<0.01								
11/17/2016	<0.01								
11/21/2016		<0.01							
2/21/2017	<0.01								
2/22/2017		<0.01							
6/13/2017	<0.01								
6/14/2017		<0.01							
9/27/2017	<0.01	<0.01							
2/14/2018	<0.01	<0.01							
3/6/2018			<0.01	<0.01					
3/15/2018					<0.001				
5/1/2018			<0.01	<0.01 (D)	0.0022 (J)				
6/26/2018	<0.01								
6/27/2018				<0.01					
6/28/2018		<0.01	<0.01		<0.001				
7/31/2018			<0.01						
8/1/2018				<0.01	0.0033 (J)				
8/10/2018						0.0032 (J)			
8/23/2018			<0.01	<0.01		0.005 (J)			
9/19/2018			<0.01	<0.01		0.0061 (J)			
10/29/2018			<0.01	<0.01	<0.001	0.0065 (J)			
11/28/2018			<0.01	<0.01	<0.001	0.0027 (J)			
12/18/2018	<0.01	<0.01							
12/19/2018				<0.01	<0.001				
12/20/2018			<0.01			<0.01			
1/16/2019					<0.001				
1/17/2019						<0.01			
1/19/2019									<0.01
2/13/2019						<0.01			
8/27/2019	<0.01	<0.01							
8/28/2019			<0.01	<0.01					
8/29/2019					<0.001	<0.01			
10/15/2019	<0.01								
10/16/2019				<0.01	<0.001	<0.01			
10/18/2019									<0.01
12/3/2019			<0.01						
12/4/2019		<0.01							
8/19/2020	0.00081 (J)	0.00078 (J)							
8/20/2020			0.00076 (J)	<0.01	<0.001	0.0012 (J)			<0.01
9/15/2020	0.0008 (J)								
9/16/2020		0.0022 (J)	<0.01	<0.01					
9/17/2020					<0.001	0.0007 (J)			<0.01
3/2/2021	0.001 (J)		<0.01	<0.01					
3/3/2021		<0.01						0.0068 (J)	
3/4/2021					<0.001	0.001 (J)			<0.01
3/5/2021							0.0017 (J)		
9/23/2021			<0.01	<0.01					
9/27/2021					<0.001				<0.01
9/28/2021	0.00089 (J)	0.001 (J)				<0.01	0.0021 (J)	0.0029 (J)	
2/2/2022	0.0011 (J)	0.0012 (J)	<0.01	<0.01		<0.01			<0.01
2/3/2022					<0.001		0.0012 (J)	0.0017 (J)	

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-30I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I	PZ-50D	PZ-51D	PZ-51I
8/23/2022	0.00105			0.000296 (J)					
8/24/2022		0.00141			<0.001			0.00171	0.000313 (J)
8/25/2022			0.000424 (J)			0.000471 (J)	0.00109		
1/25/2023			0.000545 (J)		<0.001	0.000609 (J)			
1/26/2023	0.00092 (J)	0.0014		0.00027 (J)				0.00085 (J)	0.000283 (J)
1/27/2023							0.000817 (J)		
Mean	0.006269	0.006941	0.008429	0.00892	0.001206	0.005734	0.001381	0.002792	0.007844
Std. Dev.	0.004597	0.004279	0.003614	0.003142	0.0006129	0.004082	0.0005134	0.002356	0.004278
Upper Lim.	0.01	0.01	0.01	0.01	0.0022	0.01	0.002242	0.006741	0.01
Lower Lim.	0.00092	0.0014	0.00076	0.000296	0.001	0.001	0.0005211	-0.001157	0.000283

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	PZ-58I
9/6/2016				<0.005					
9/8/2016	<0.005	0.0043 (J)	0.0039 (J)		<0.01				
11/17/2016	<0.005								
11/18/2016		0.0047 (J)							
11/21/2016			0.0058 (J)	<0.005	<0.01				
2/21/2017	<0.005	0.0025 (J)							
2/22/2017			0.005 (J)	<0.005	0.0017 (J)				
6/13/2017	<0.005	0.0036 (J)							
6/14/2017			0.0074 (J)	0.0045 (J)	<0.01				
9/27/2017	<0.005	0.004 (J)	0.0068 (J)	0.0034 (J)	0.0019 (J)				
2/14/2018	<0.005	<0.005	<0.005	<0.005	<0.01				
3/6/2018						<0.005	<0.005		
3/15/2018								<0.005	
5/1/2018						<0.005	<0.005 (D)	<0.005	
6/26/2018	<0.005								
6/27/2018		0.0014 (J)	<0.005		0.0017 (J)		<0.005		
6/28/2018				<0.005		<0.005		<0.005	
7/31/2018						<0.005			
8/1/2018							0.0015 (J)	0.0031 (J)	
8/23/2018						<0.005	<0.005 (X)		
9/19/2018						<0.005	0.002 (J)		
10/29/2018						<0.005	<0.005	0.002 (J)	
11/28/2018						<0.005	<0.005	0.0017 (J)	
12/18/2018	<0.005		<0.005	<0.005					
12/19/2018					0.0059 (J)		<0.005	<0.005	
12/20/2018		<0.005				<0.005			
1/16/2019									<0.005
8/27/2019	<0.005			0.0038 (J)	0.057				
8/28/2019		0.0017 (J)	<0.005			<0.005	<0.005		
8/29/2019									<0.005
10/15/2019	<0.005								
10/16/2019			<0.005				0.0017 (J)	0.002 (J)	
12/3/2019						0.0029 (J)			
12/4/2019		0.0036 (J)		0.0018 (J)	0.1				
3/4/2020	<0.005	0.0022 (J)	0.0018 (J)				<0.005	0.0026 (J)	
3/5/2020				<0.005	0.1	<0.005			
5/12/2020					0.0989				
8/19/2020	<0.005	<0.005	<0.005	<0.005	0.099				
8/20/2020						<0.005	0.0016 (J)	0.0037 (J)	
9/15/2020	<0.005		<0.005						
9/16/2020		0.0042 (J)		<0.005	0.12	<0.005	0.002 (J)		
9/17/2020								<0.005	
3/2/2021	0.0021 (J)					<0.005	0.0028 (J)		
3/3/2021		0.0031 (J)	0.0042 (J)	<0.005					
3/4/2021					0.14			0.0039 (J)	
9/23/2021						<0.005	<0.005		
9/27/2021								0.0022 (J)	
9/28/2021	<0.005	<0.005	0.0022 (J)	<0.005	0.13				0.0034 (J)
2/2/2022	<0.005			<0.005	0.21	<0.005	<0.005		
2/3/2022			<0.005					<0.005	0.0016 (J)
2/4/2022		<0.005							
8/23/2022	<0.005						<0.005		

# Confidence Interval

Constituent: Selenium (mg/L)    Analysis Run 3/21/2023 3:26 PM    View: Pond BCD Appendix IV - Confidence Intervals  
 Plant Branch    Client: Southern Company    Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I	BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	PZ-58I
8/24/2022			<0.005	<0.005				0.00176 (J)	0.00348 (J)
8/25/2022		<0.005			0.218	<0.005			
1/24/2023					0.198				
1/25/2023		<0.005				<0.005		0.00189 (J)	
1/26/2023	<0.005		<0.005	<0.005			<0.005		0.00265 (J)
Mean	0.004839	0.003906	0.004839	0.004639	0.1337	0.004889	0.004032	0.003603	0.002783
Std. Dev.	0.0006835	0.00124	0.001308	0.0008452	0.0528	0.0004818	0.001486	0.001415	0.0008725
Upper Lim.	0.005	0.005	0.005	0.005	0.1777	0.005	0.005	0.005	0.004763
Lower Lim.	0.0021	0.0025	0.0042	0.0045	0.08972	0.0029	0.002	0.002	0.0008017

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-60I	PZ-61I
9/27/2021		0.0079
9/28/2021	0.0049 (J)	
2/2/2022		0.0031 (J)
2/3/2022	0.0026 (J)	
8/24/2022	0.00417 (J)	0.0051
1/26/2023	0.0031 (J)	0.00321 (J)
Mean	0.003693	0.004828
Std. Dev.	0.001038	0.002245
Upper Lim.	0.006049	0.009924
Lower Lim.	0.001336	-0.0002686

# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 3/21/2023 3:26 PM View: Pond BCD Appendix IV - Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-29I
9/8/2016	<0.002
11/21/2016	0.0002 (J)
2/22/2017	0.0002 (J)
6/14/2017	0.0002 (J)
9/27/2017	0.0002 (J)
2/14/2018	0.00018 (J)
6/27/2018	0.00017 (J)
12/18/2018	0.00017 (J)
8/28/2019	0.00017 (J)
10/16/2019	0.00017 (J)
3/4/2020	0.00016 (J)
8/19/2020	0.00016 (J)
9/15/2020	0.00016 (J)
3/3/2021	0.00018 (J)
9/28/2021	<0.002
2/3/2022	<0.002
8/24/2022	<0.002
1/26/2023	<0.002
Mean	0.0006844
Std. Dev.	0.0008396
Upper Lim.	0.002
Lower Lim.	0.00017

FIGURE I.



# Appendix IV Trend Tests - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cadmium (mg/L)	BRGWC-50	-0.007206	-84	-68	Yes	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12I (bg)	-0.001337	-106	-74	Yes	19	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12S (bg)	-0.001337	-106	-74	Yes	19	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0003644	-88	-68	Yes	18	11.11	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWC-32S	0.03391	121	74	Yes	19	21.05	n/a	n/a	0.01	NP

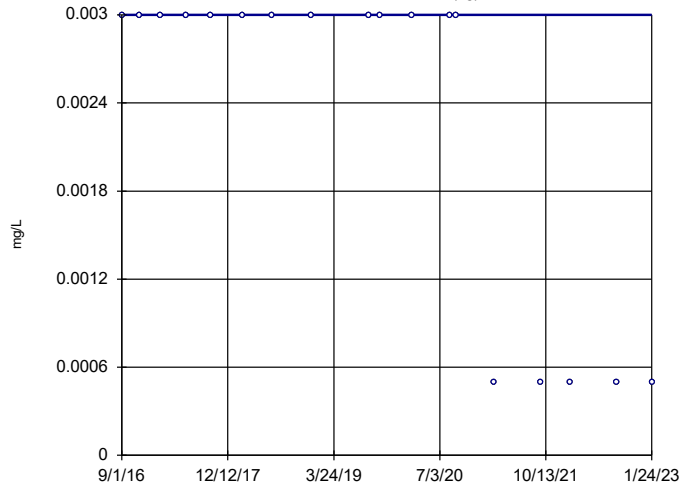
# Appendix IV Trend Tests - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 3/20/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-12I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-12S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-23S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	PZ-58I	0.009724	6	8	No	4	0	n/a	n/a	0.01	NP
Beryllium (mg/L)	PZ-60I	0.008136	4	8	No	4	0	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12I (bg)	0	-1	-74	No	19	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12S (bg)	0	-1	-74	No	19	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-23S (bg)	0	0	68	No	18	88.89	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2I (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2S (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5I (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5S (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-6S (bg)	0	-3	-68	No	18	100	n/a	n/a	0.01	NP
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>-0.007206</b>	<b>-84</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cadmium (mg/L)	PZ-60I	-0.000301	-1	-8	No	4	0	n/a	n/a	0.01	NP
<b>Cobalt (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.001337</b>	<b>-106</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>BRGWA-12S (bg)</b>	<b>-0.001337</b>	<b>-106</b>	<b>-74</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-23S (bg)	-0.0006334	-66	-68	No	18	16.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	-0.001432	-61	-68	No	18	66.67	n/a	n/a	0.01	NP
<b>Cobalt (mg/L)</b>	<b>BRGWA-2S (bg)</b>	<b>-0.0003644</b>	<b>-88</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>11.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Cobalt (mg/L)	BRGWA-5I (bg)	-0.000106	-52	-58	No	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	-19	-68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	-0.001237	-50	-68	No	18	72.22	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-50	0	24	68	No	18	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-51I	0.001261	18	34	No	11	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-58I	0.1052	6	8	No	4	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-60I	0.1351	4	8	No	4	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-61I	0.1073	6	8	No	4	0	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-12S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-23S (bg)	-0.0006266	-42	-68	No	18	33.33	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-2S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5I (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-5S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
Selenium (mg/L)	BRGWA-6S (bg)	0	-65	-68	No	18	100	n/a	n/a	0.01	NP
<b>Selenium (mg/L)</b>	<b>BRGWC-32S</b>	<b>0.03391</b>	<b>121</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>21.05</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

### Sen's Slope Estimator

BRGWA-12I (bg)

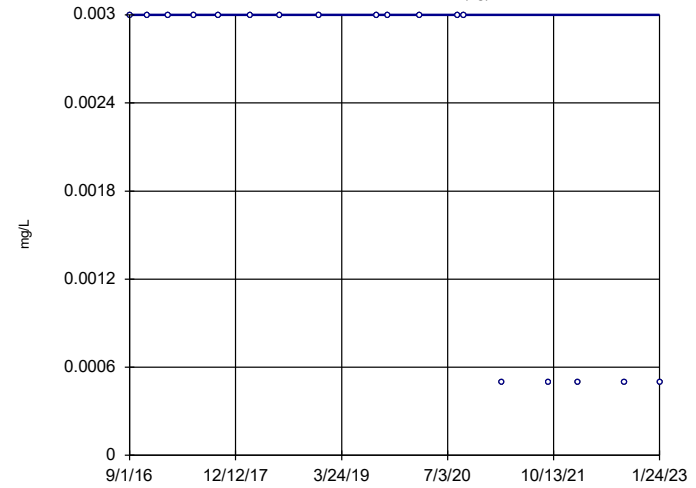


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

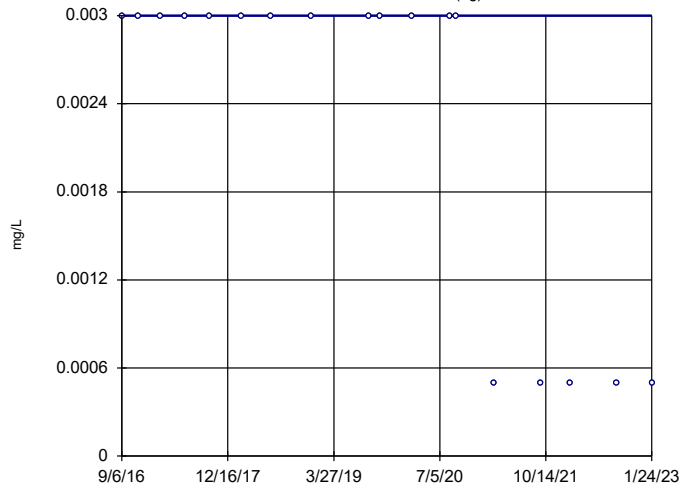


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

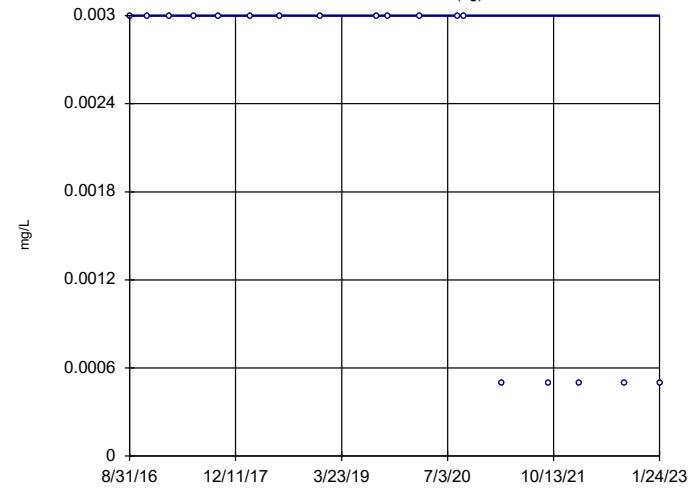


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

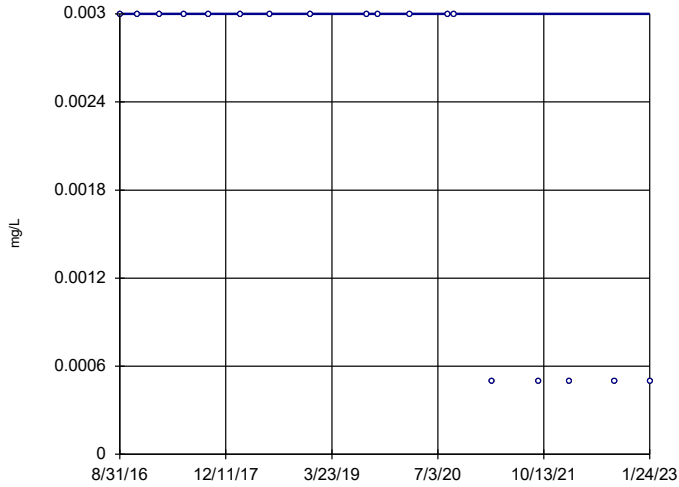


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

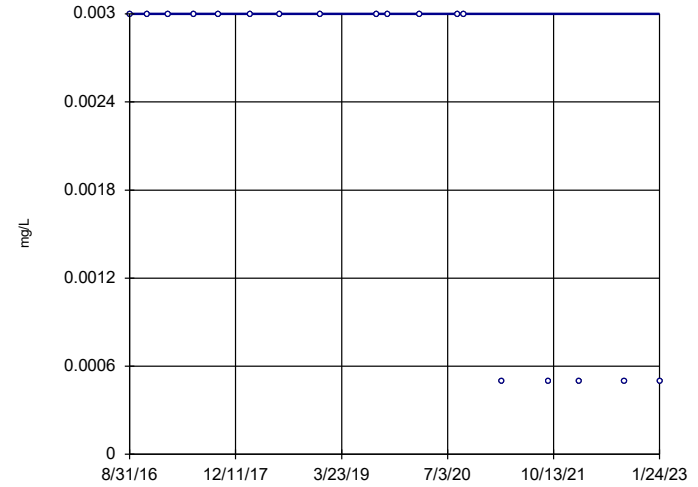


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

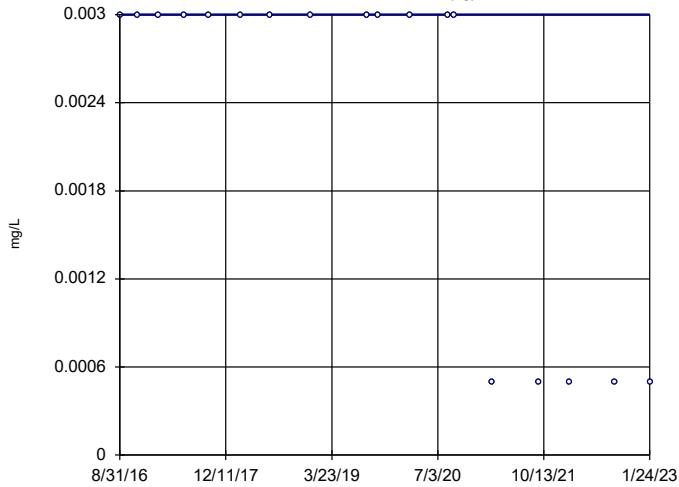


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

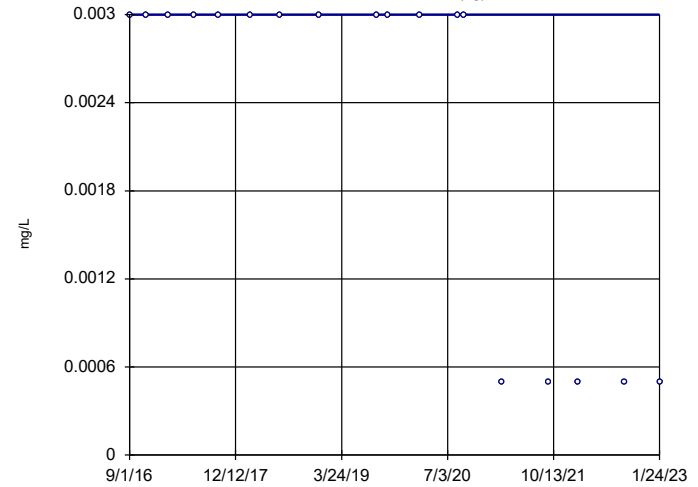


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

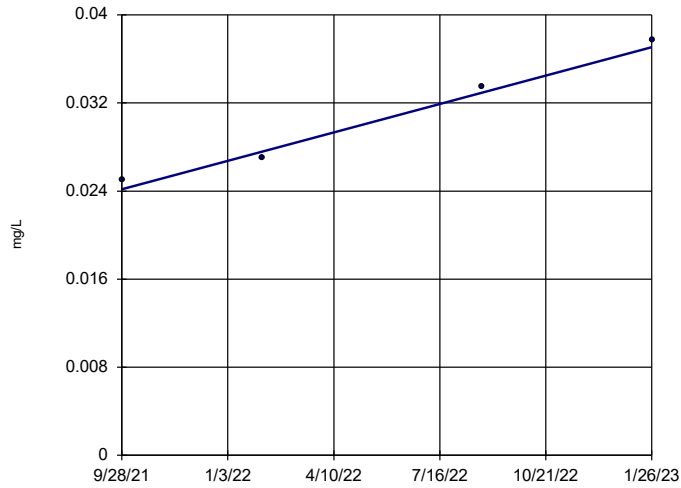


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

PZ-58I

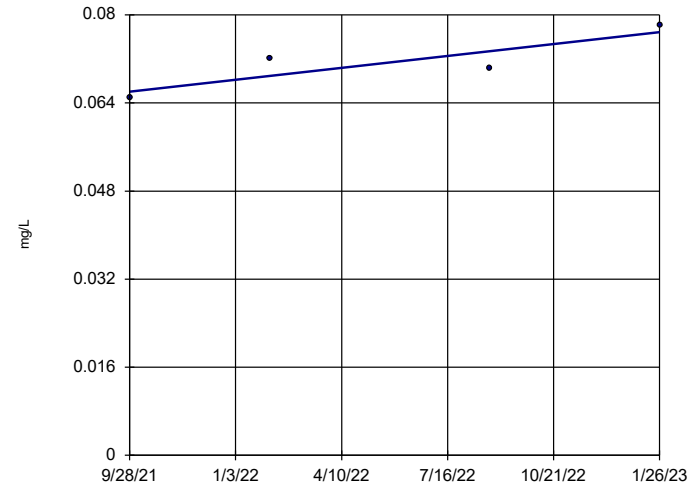


n = 4  
 Slope = 0.009724 units per year.  
 Mann-Kendall statistic = 6  
 critical = 8  
 Trend not significant at 99% confidence level (α = 0.005 per tail).  
 With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

PZ-60I

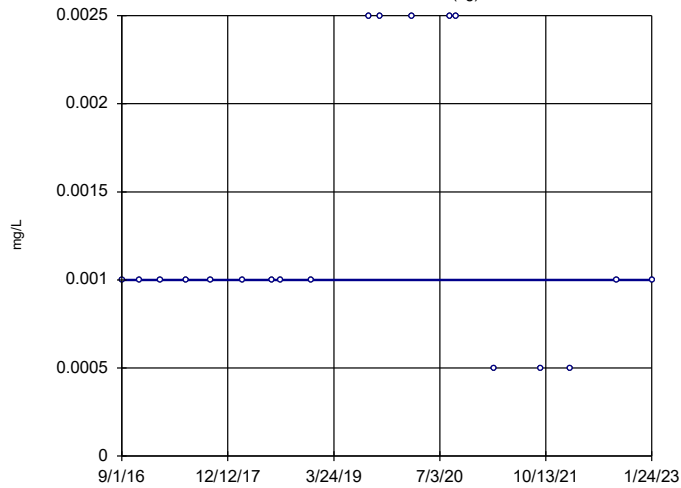


n = 4  
 Slope = 0.008136 units per year.  
 Mann-Kendall statistic = 4  
 critical = 8  
 Trend not significant at 99% confidence level (α = 0.005 per tail).  
 With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Beryllium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12I (bg)

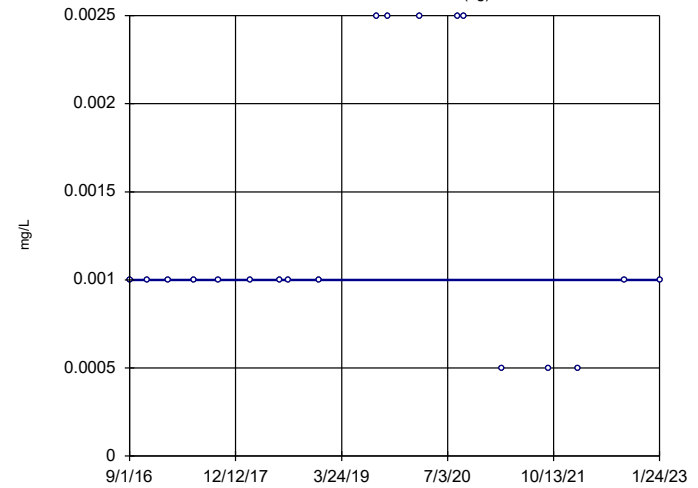


n = 19  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -1  
 critical = -74  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

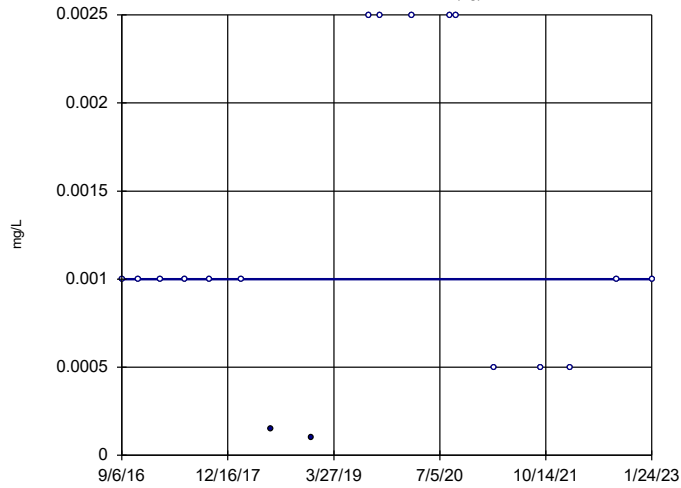


n = 19  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -1  
 critical = -74  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

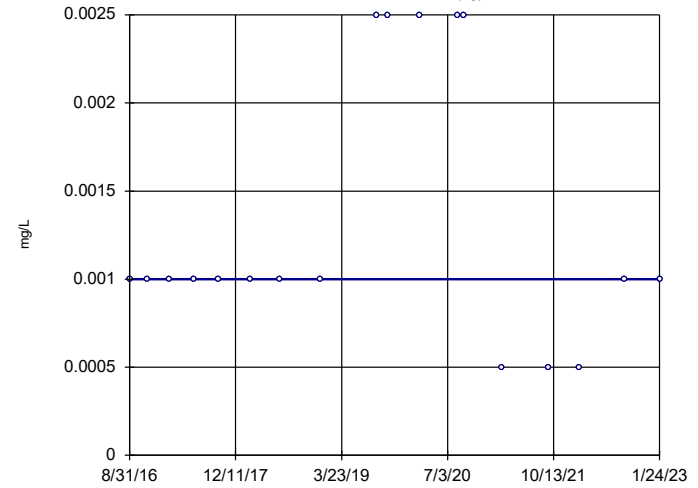


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

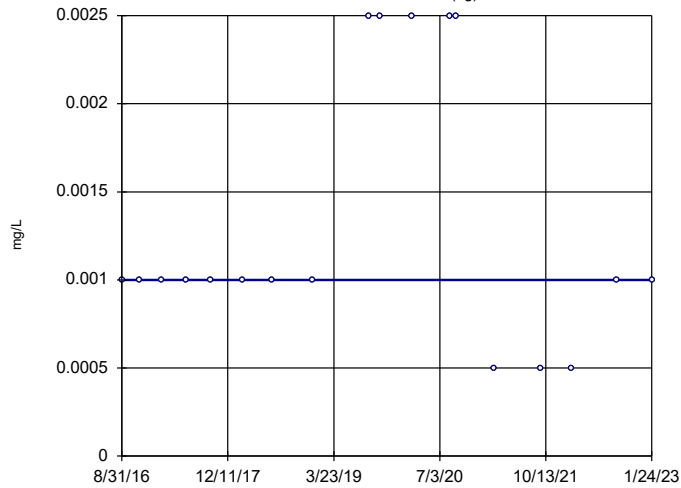


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -3  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

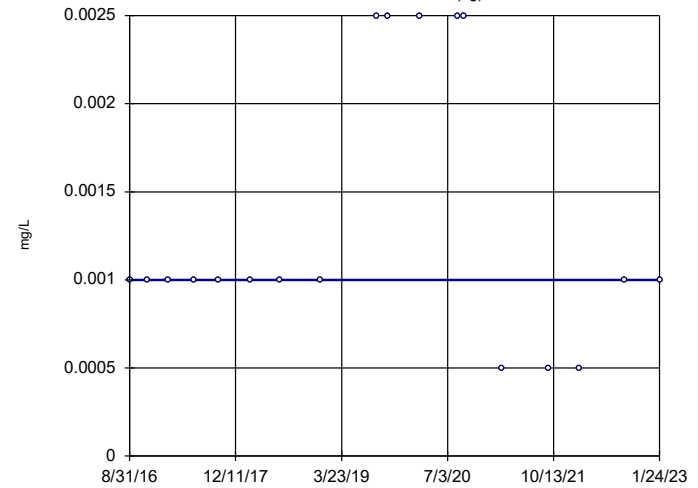


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -3  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

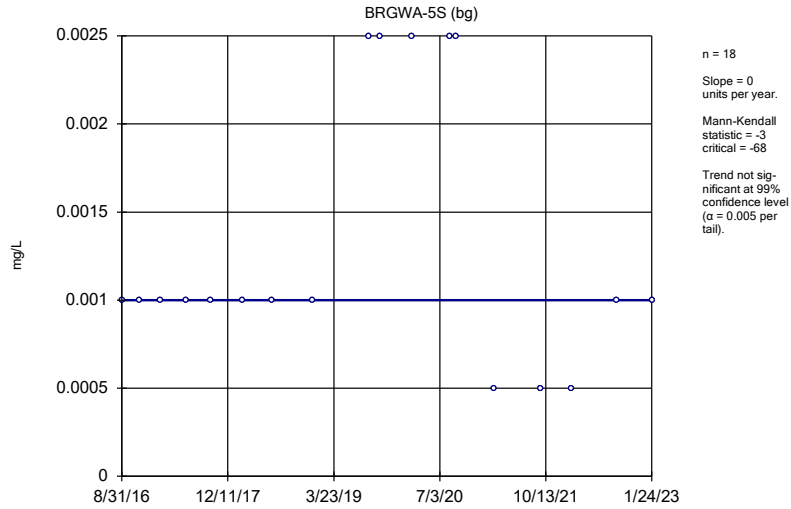
BRGWA-5I (bg)



n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -3  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

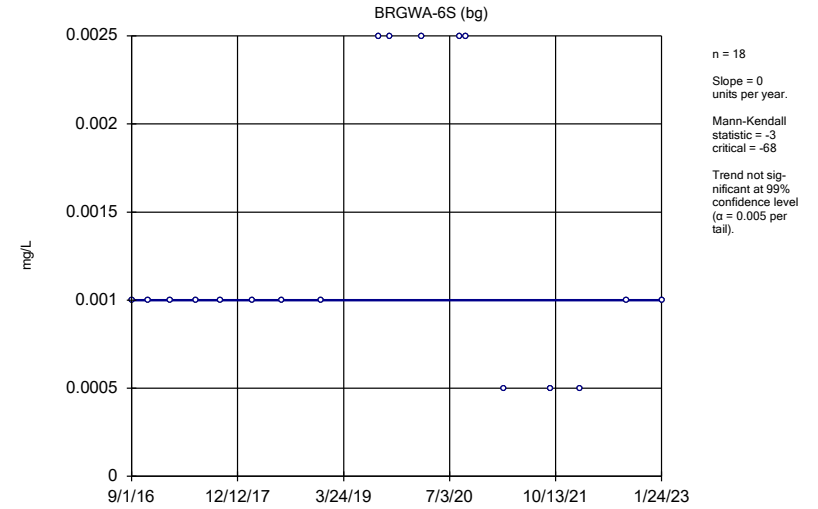
Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator



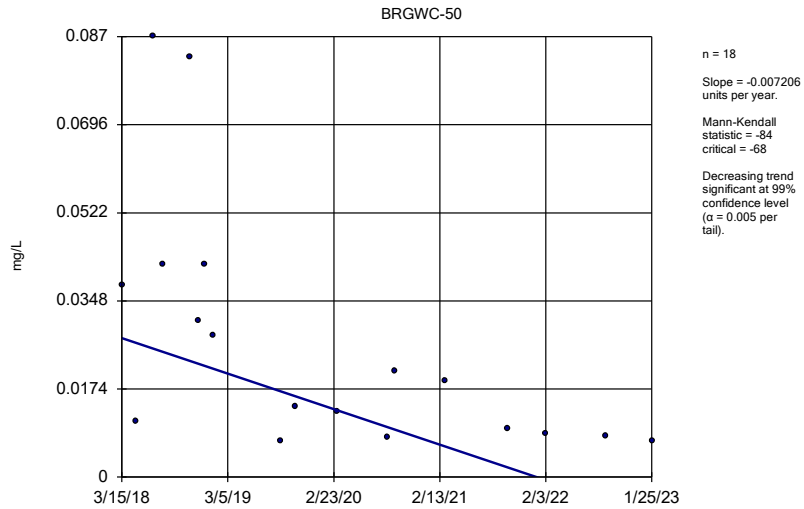
Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator



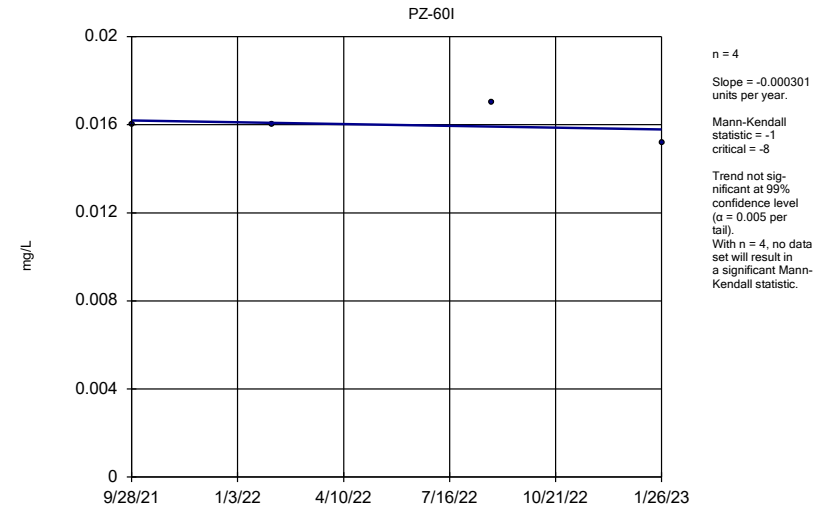
Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator



Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

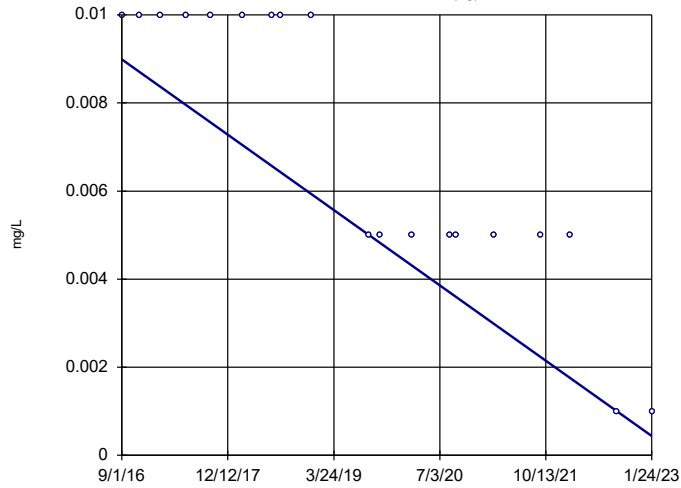
Sen's Slope Estimator



Constituent: Cadmium Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12I (bg)

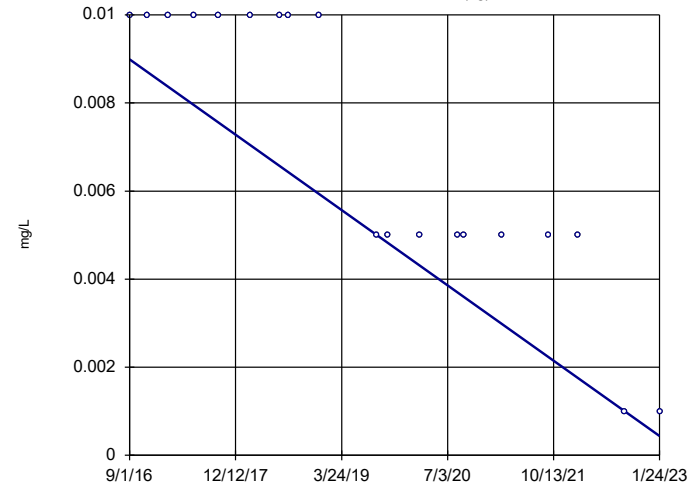


n = 19  
Slope = -0.001337  
units per year.  
Mann-Kendall  
statistic = -106  
critical = -74  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

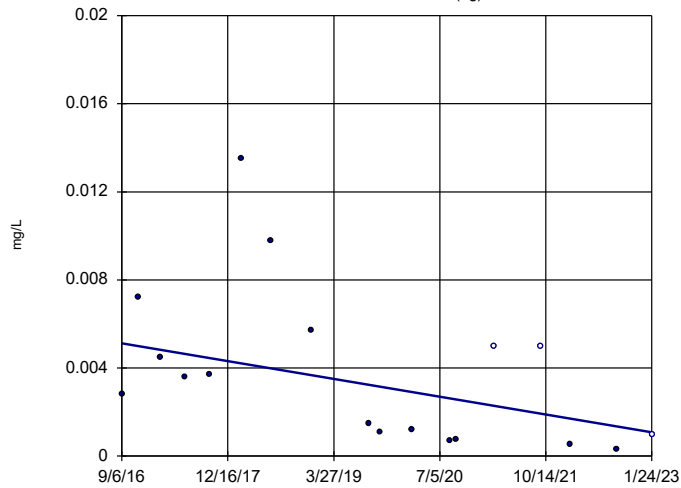


n = 19  
Slope = -0.001337  
units per year.  
Mann-Kendall  
statistic = -106  
critical = -74  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

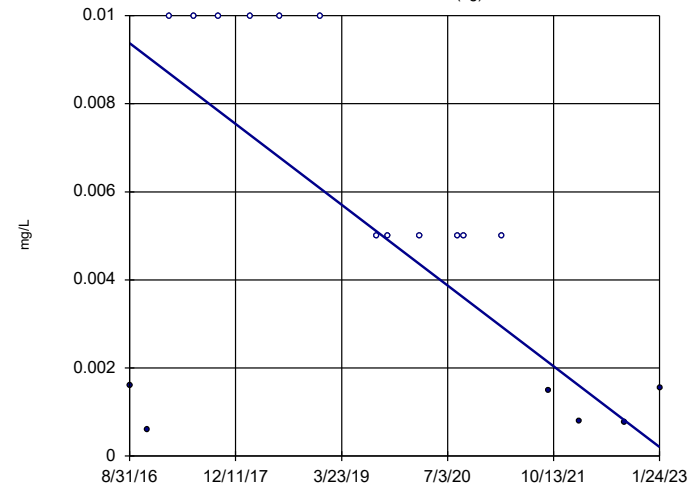


n = 18  
Slope = -0.0006334  
units per year.  
Mann-Kendall  
statistic = -66  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)



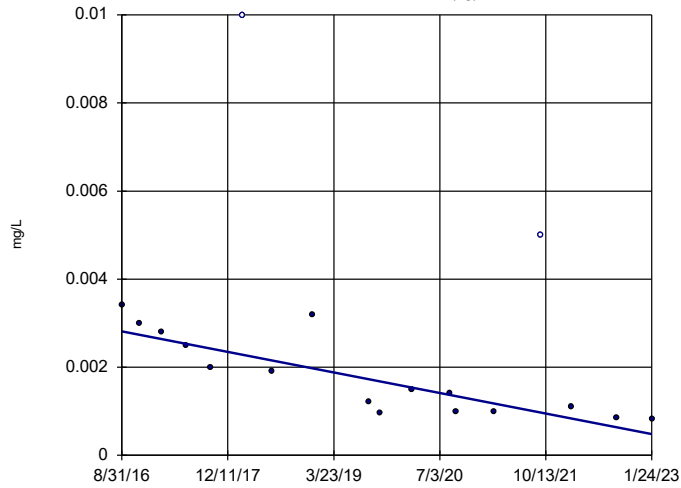
n = 18  
Slope = -0.001432  
units per year.  
Mann-Kendall  
statistic = -61  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWA-2S (bg)

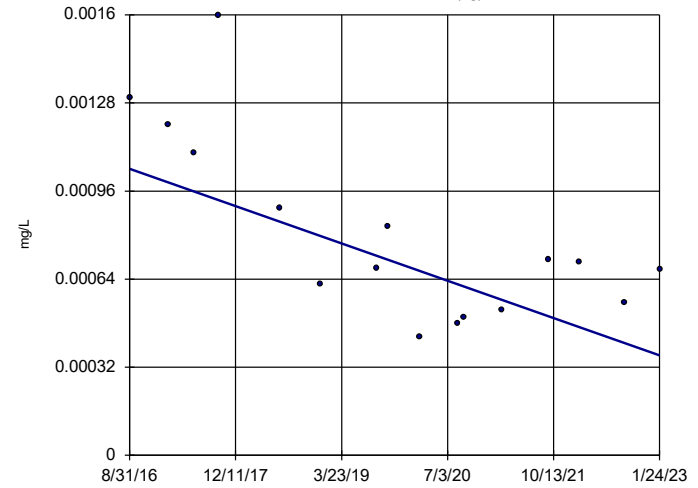


n = 18  
Slope = -0.0003644  
units per year.  
Mann-Kendall  
statistic = -88  
critical = -68  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

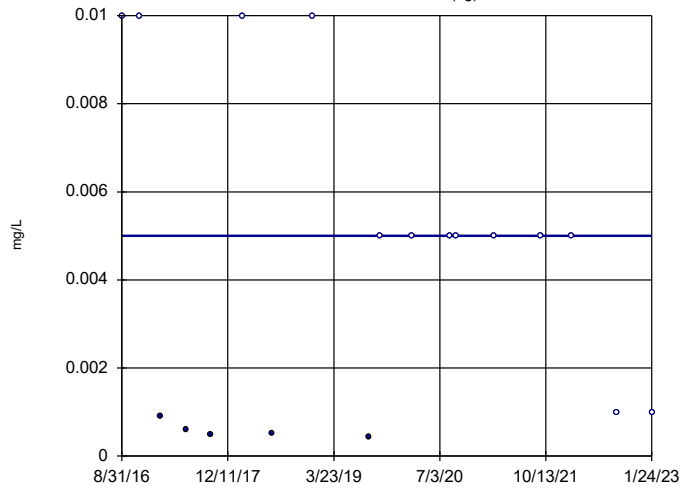


n = 16  
Slope = -0.000106  
units per year.  
Mann-Kendall  
statistic = -52  
critical = -58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:14 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

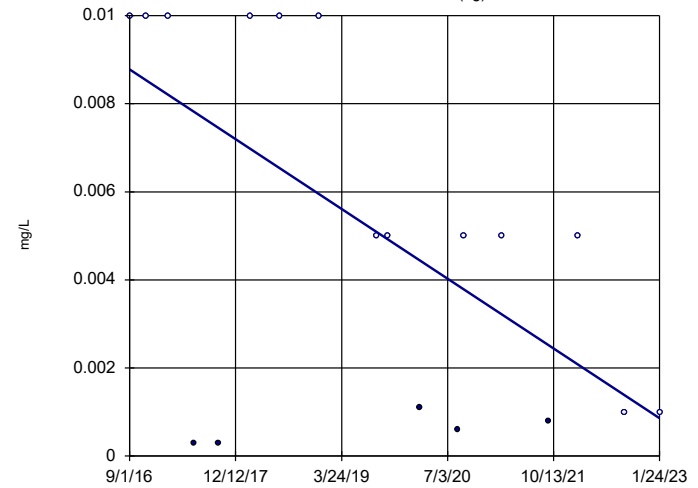


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -19  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

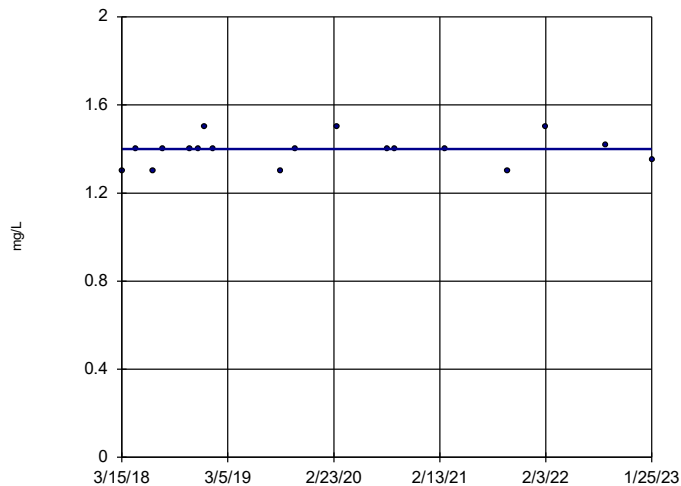


n = 18  
Slope = -0.001237  
units per year.  
Mann-Kendall  
statistic = -50  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

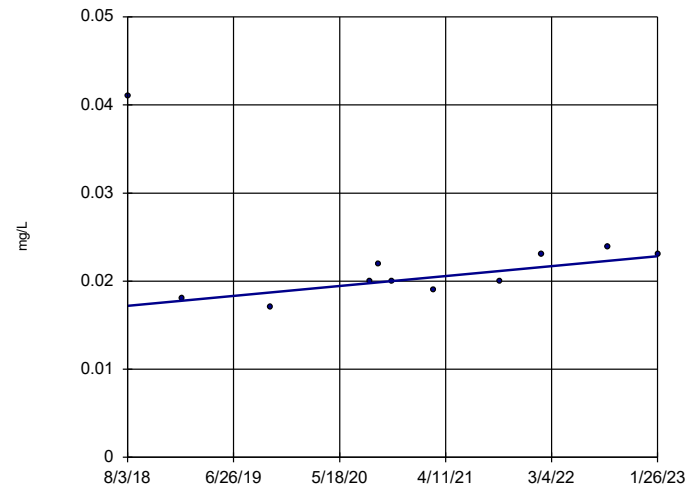
BRGWC-50



n = 18  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 24  
 critical = 68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

### Sen's Slope Estimator

PZ-511



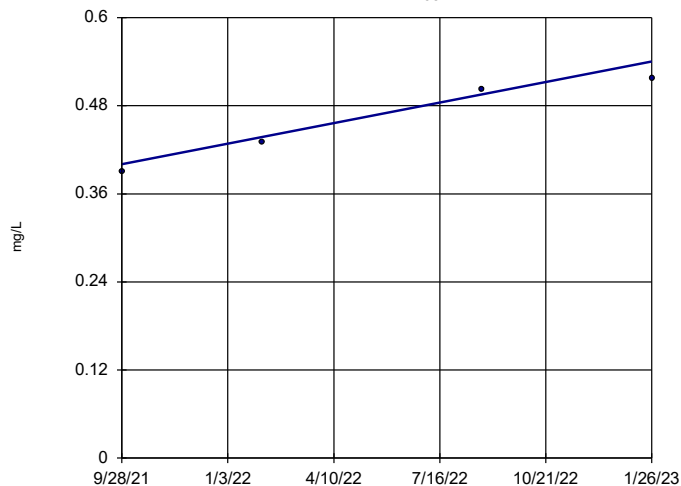
n = 11  
 Slope = 0.001261  
 units per year.  
 Mann-Kendall  
 statistic = 18  
 critical = 34  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

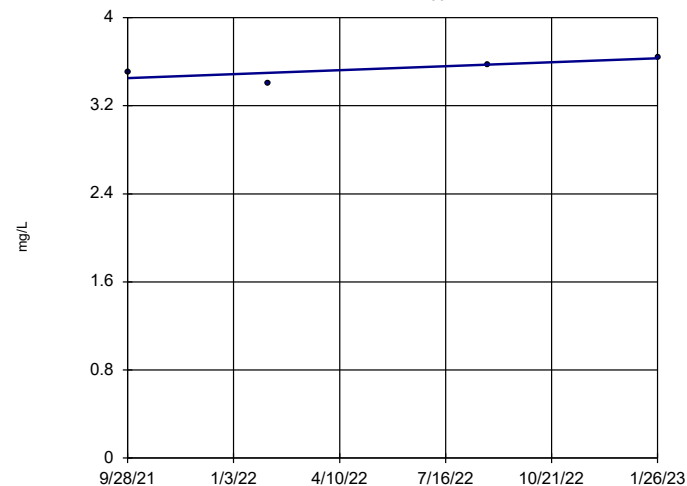
PZ-581



n = 4  
 Slope = 0.1052  
 units per year.  
 Mann-Kendall  
 statistic = 6  
 critical = 8  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).  
 With n = 4, no data  
 set will result in  
 a significant Mann-  
 Kendall statistic.

### Sen's Slope Estimator

PZ-601



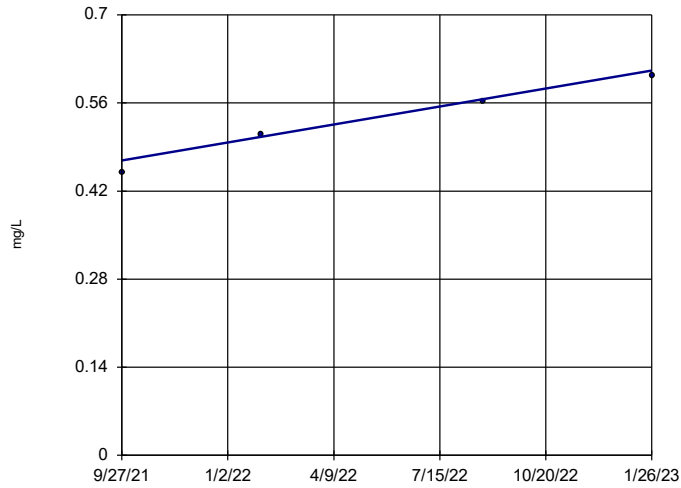
n = 4  
 Slope = 0.1351  
 units per year.  
 Mann-Kendall  
 statistic = 4  
 critical = 8  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).  
 With n = 4, no data  
 set will result in  
 a significant Mann-  
 Kendall statistic.

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

PZ-61I

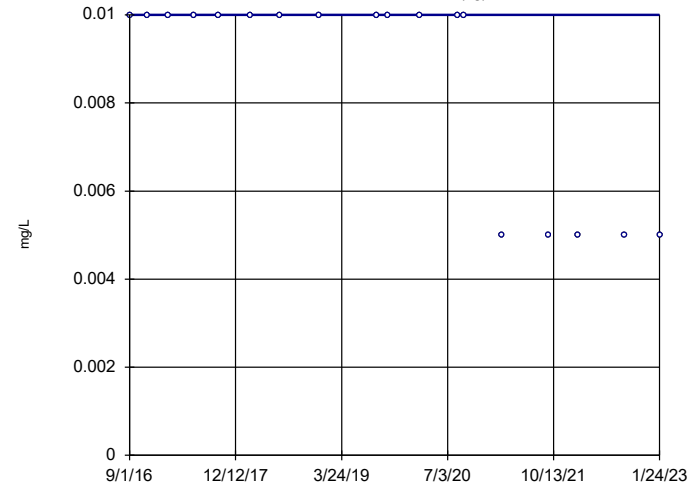


n = 4  
 Slope = 0.1073 units per year.  
 Mann-Kendall statistic = 6  
 critical = 8  
 Trend not significant at 99% confidence level (α = 0.005 per tail).  
 With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Cobalt Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12I (bg)

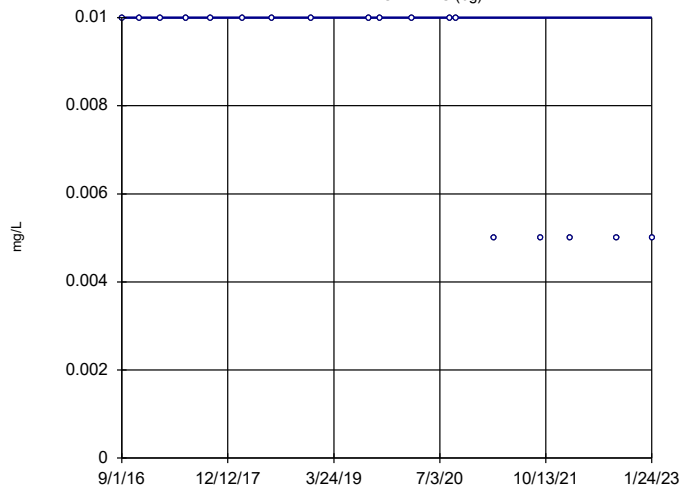


n = 18  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -65  
 critical = -68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

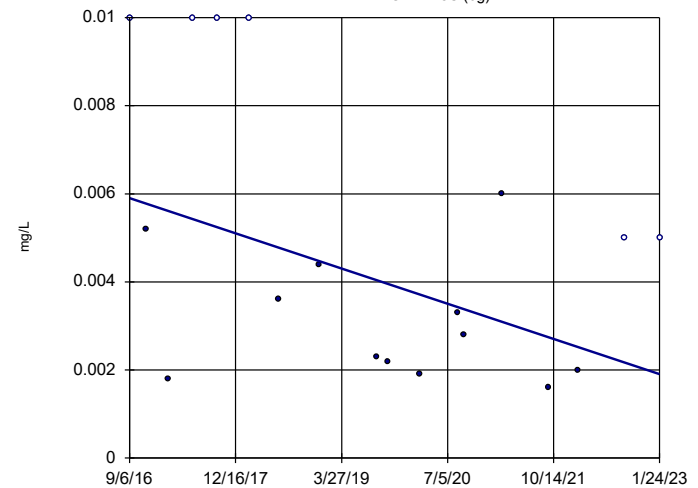


n = 18  
 Slope = 0 units per year.  
 Mann-Kendall statistic = -65  
 critical = -68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

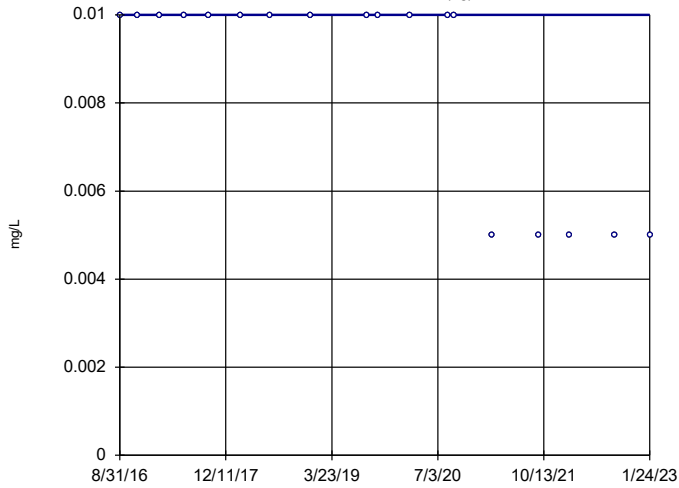


n = 18  
 Slope = -0.0006266 units per year.  
 Mann-Kendall statistic = -42  
 critical = -68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

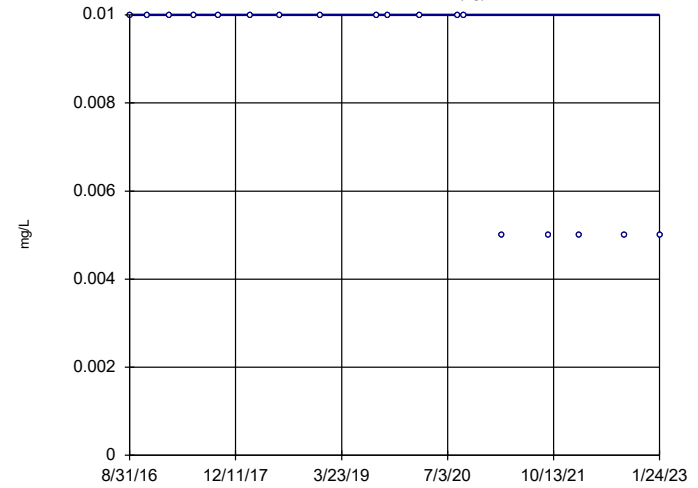


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

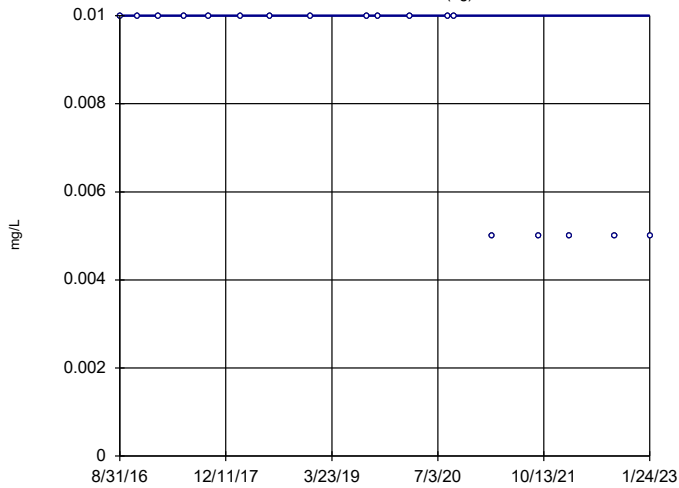


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

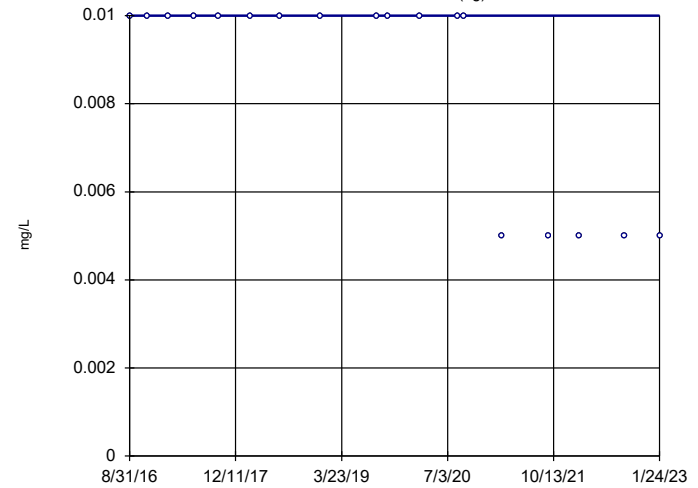


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

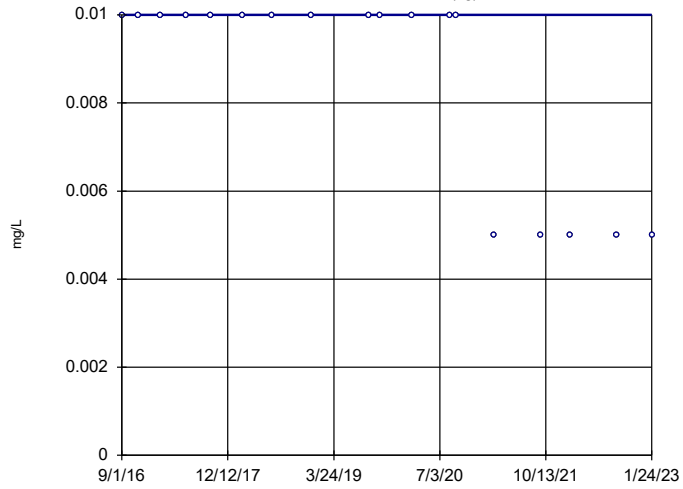


n = 18  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -68  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

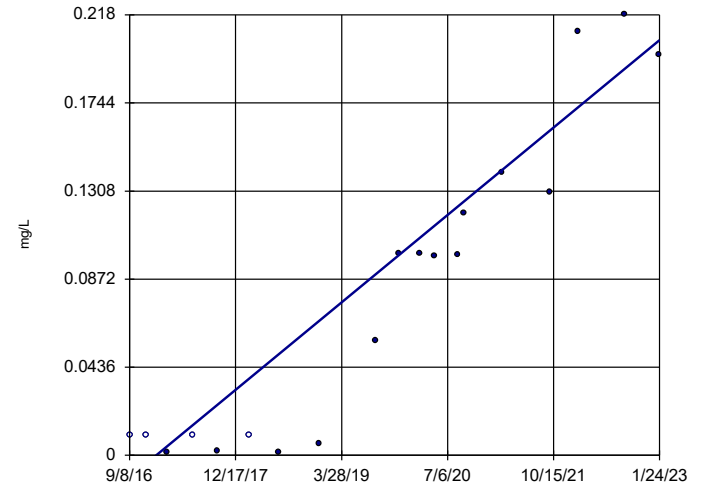


n = 18  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = -65  
 critical = -68  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-32S



n = 19  
 Slope = 0.03391  
 units per year.  
 Mann-Kendall  
 statistic = 121  
 critical = 74  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Selenium Analysis Run 3/20/2023 2:15 PM View: Pond BCD - Appendix IV Trend Tests  
 Plant Branch Client: Southern Company Data: Plant Branch AP

# APPENDIX E

## Semiannual Remedy Selection and Design Progress Report



*Prepared for*

**Georgia Power Company**  
241 Ralph McGill Blvd NE  
Atlanta, Georgia 30308

# **SEMIANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT**

## **PLANT BRANCH ASH PONDS B, C, AND D**

*Prepared by*

**Geosyntec**   
consultants

**engineers | scientists | innovators**

1255 Roberts Boulevard, Suite 200  
Kennesaw, Georgia 30144

Project Number GW8862

July 2023

## CERTIFICATION STATEMENT

This *Semiannual Remedy Selection and Design Progress Report, Plant Branch Ash Ponds B, C, & D* has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.

**Report Prepared by:**



---

Lauren E. Fitzgerald  
Georgia Professional Engineer No. 048960

July 31, 2023  
Date



**TABLE OF CONTENTS**

1.0 INTRODUCTION ..... 1

    1.1 Purpose ..... 1

    1.2 Site Background and Overview of AP-BCD Pond Closure ..... 1

    1.3 Regulatory Program Status and Nature and Extent ..... 2

    1.4 Corrective Measures Evaluated ..... 5

2.0 SUMMARY OF WORK COMPLETED ..... 7

    2.1 Field Activities ..... 7

        2.1.1 Well and Piezometer Installation and Sampling ..... 7

        2.1.2 Aquifer Testing..... 8

        2.1.3 Geophysical Investigation ..... 8

    2.2 Data Analysis Activities ..... 9

        2.2.1 Soil Characterization ..... 9

        2.2.2 Groundwater Analytical Analysis ..... 10

3.0 SUMMARY OF RESULTS ..... 12

    3.1 Summary of Field Activities..... 12

        3.1.1 Aquifer Testing..... 12

    3.2 Summary of Data Analysis Activities ..... 12

        3.2.1 Soil Characterization ..... 12

        3.2.2 Groundwater Geochemical Analysis..... 13

4.0 UPDATED CONCEPTUAL SITE MODEL..... 14

5.0 UPDATED EVALUATION OF CORRECTIVE MEASURES ..... 16

6.0 PLANNED ACTIVITIES AND ANTICIPATED SCHEDULE..... 18

7.0 REFERENCES ..... 20

## LIST OF TABLES

Table 1	Monitoring Well Network Summary
Table 2	Evaluation of Remedial Technologies
Table 3	Summary of Estimated Horizontal Hydraulic Conductivity Values
Table 4	Summary of Soil Total Metals
Table 5	Summary of Whole Rock Analysis
Table 6	Summary of X-ray Diffraction Analysis
Table 7	Summary of Sequential Extraction Procedure
Table 8	Summary of Groundwater Analytical Data
Table 9	Summary of Selenium Speciation Analysis

## LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Monitoring Well Network and Surface Water Location Map
Figure 3	Iso-concentration Map, Beryllium – January 2023
Figure 4	Iso-concentration Map, Cadmium – January 2023
Figure 5	Iso-concentration Map, Cobalt – January 2023
Figure 6	Iso-concentration Map, Selenium – January to July 2023
Figure 7	AP-B Interstitial Well Location Map
Figure 8	Cobalt Correlations: pH, Sulfate, Iron and Manganese
Figure 9a	Beryllium Concentration Trends
Figure 9b	Cadmium Concentration Trends
Figure 9c	Cobalt Concentration Trends
Figure 9d	Selenium Concentration Trends

## LIST OF APPENDICES

Appendix A	Boring Logs
Appendix B	Analytical Laboratory Reports
Appendix C	Slug Test Data Plots

## LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Assessment of Corrective Measures
AP	ash pond
CCR	coal combustion residuals
CFR	Code of Federal Regulations
cm/sec	centimeters per second
CSM	conceptual site model
ft/day	feet per day
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GWPS	Groundwater Protection Standard
ISS	in-situ stabilization
$K_h$	hydraulic conductivity
MNA	monitored natural attenuation
ORP	Oxidation-reduction potential
PRB	permeable reactive barrier
PWR	partially weathered rock
SEP	sequential extraction procedure
SSL	statistically significant level
USEPA	United States Environmental Protection Agency
XRD	X-ray diffraction

## 1.0 INTRODUCTION

### 1.1 Purpose

This *Semiannual Remedy Selection and Design Progress Report* (the semiannual progress report) was prepared by Geosyntec Consultants, Inc. (Geosyntec) for Georgia Power Company (Georgia Power) Plant Branch Ash Ponds B, C, and D (AP-BCD or Site) in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D), specifically 40 CFR § 257.97(a), and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a) (State CCR Rule). Plant Branch ceased producing electricity prior to April 2015, therefore AP-BCD is not subject to the CCR Rule. AP-BCD is managed directly under the State CCR Rule, which incorporates the CCR Rule by reference. This semiannual progress report describes the progress made since the issuance of the prior semiannual progress report in February 2023 in selecting and designing a remedy. Potentially applicable groundwater corrective measures were previously described in the *Assessment of Corrective Measures Report – Plant Branch Ash Ponds B, C, and D (AP-BCD)* (Golder, 2020) (ACM Report).

The purpose of the ACM Report (and subsequent semiannual progress reports) is to document the process of evaluating and selecting corrective measure(s) to improve groundwater quality at the Site. This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures. Once potential corrective measures are identified, they are further evaluated using the criteria outlined in § 257.96(c) and Rule 391-3-4-.10(6)(a). The selected corrective measure must meet the additional protection criteria outlined in § 257.97 and corresponding Rule 391-3-4-.10(6)(a). Pursuant to § 257.97(a) and Rule 391-3-4-.10(6)(a), semiannual progress reports have been regularly submitted to document the efforts of evaluating and progressing toward selecting a groundwater corrective measure (Golder, 2021a, 2021b, and 2022; Geosyntec, 2022 and 2023).

### 1.2 Site Background and Overview of AP-BCD Pond Closure

Ash Pond B is an approximately 52-acre ash pond that was formed by damming a valley. Placement of CCR in the ash pond began in late 1967. Ash Pond C is an approximately 69-acre ash pond that was also formed by damming a valley. CCR placement in Ash Pond C began in the early 1970s. Ash Pond D is an approximately 46-acre ash pond that began receiving CCR in about 1980. All units ceased receiving waste prior to the effective date

of the CCR rule promulgated in April 2015, thereby designating this Site as a Phase II site under the State CCR Rule.

Georgia Power intends to close Ash Ponds B, C, and D (**Figure 1**) via closure by removal in accordance with § 257.102 and corresponding State Rule 391-3-4-.10(7)(b). By removing the CCR from each of the Ash Ponds, the proposed method provides a source control measure which reduces the potential for migration of CCR constituents to groundwater.

### **1.3 Regulatory Program Status and Nature and Extent**

Pursuant to the CCR Rule, CCR compliance groundwater monitoring-related activities have been performed for AP-BCD since 2018. Georgia Power initiated a groundwater assessment monitoring program on November 13, 2019, after identifying statistically significant increases (SSI) of Appendix III constituents.

Statistical analyses of the Appendix IV assessment monitoring groundwater data collected in March 2020 identified statistically significant levels (SSL) for cobalt and cadmium at concentrations exceeding the state and/or federal Groundwater Protection Standards (GWPS)<sup>1</sup>. Pursuant to § 257.96, Georgia Power initiated an ACM program for AP-BCD in July 2020. The ACM Report was submitted to GA EPD on December 4, 2020, and posted to the CCR compliance website (Golder, 2020). Statistical analyses of the Appendix IV assessment monitoring groundwater data collected in August 2022 identified another SSL in the AP-BCD detection monitoring network: selenium in BRGWC-32S. In addition, statistical analyses of the Appendix IV assessment monitoring groundwater data collected in January 2023 identified an additional cadmium SSL in PZ-60I, additional cobalt SSLs in PZ-58I, PZ-60I, and PZ-61I, and beryllium as an SSL in PZ-58I and PZ-60I.

Since the ACM was initiated, assessment monitoring wells (formerly referred to as “delineation monitoring wells”) have been installed and incorporated into the monitoring well network (formerly referred to as the “compliance monitoring well network”) to delineate, both horizontally and vertically, the extent of the cobalt, cadmium, and selenium SSLs downgradient of AP-BCD. Given the location of the assessment wells where the beryllium SSL was observed, assessment monitoring wells for horizontal and

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<sup>1</sup> On February 22, 2022, GA EPD adopted the federal GWPS for cobalt, lithium, lead, and molybdenum. The GWPS for cadmium is derived from the federally promulgated maximum contaminant level of 0.005 milligrams per liter.

vertical delineation of this SSL are already present. The monitoring well network is shown on **Figure 2**; **Table 1** provides well construction details.

Statistical analysis of the January 2023 semiannual assessment monitoring groundwater data identified SSLs of the following Appendix IV constituents at concentrations exceeding the applicable GWPS at AP-BCD:

- Beryllium: PZ-58I and PZ-60I
- Cadmium: BRGWC-50 and PZ-60I
- Cobalt: BRGWC-50, PZ-51I, PZ-58I, PZ-60I, and PZ-61I
- Selenium: BRGWC-32S

Details are provided in the *2023 Annual Groundwater Monitoring and Corrective Action Report* (2023 Annual Groundwater Report) to which this semiannual progress report is appended.

The groundwater data collected between January and July 2023 were used to generate the beryllium, cadmium, cobalt, and selenium iso-concentration maps presented on **Figures 3** through **6**, respectively. Based on the groundwater data reported in the 2023 Annual Groundwater Report, the horizontal and vertical delineation status of identified beryllium, cadmium, cobalt, and selenium SSLs is the following:

- PZ-58I and PZ-60I – beryllium is horizontally delineated downgradient by PZ-61I and vertically by PZ-50D.
- BRGWC-50 and PZ-60I – cadmium is horizontally delineated downgradient by PZ-61I and vertically by PZ-50D.
- BRGWC-50, PZ-51I, PZ-58I, PZ-60I, and PZ-61I – cobalt is horizontally delineated downgradient by surface water location LR+9A and vertically delineated by PZ-51D. While the downgradient (in the direction of groundwater flow from AP-BCD) delineation of cobalt SSLs is complete, the full nature and extent of cobalt impacts is still under investigation, particularly in the areas north of current SSL locations.
- BRGWC-32S – selenium is vertically delineated by PZ-68D and horizontally delineated downgradient by surface water location LS+3A.

Based on GA EPD guidance, monitoring wells with SSLs were further evaluated by Groundwater Stats Consulting using the Sen's Slope/Mann Kendall trend test. The full statistical evaluation is included as an appendix to the 2023 Annual Groundwater Report.

- A statistically significant decreasing trend (at 99% confidence) was identified for cadmium in BRGWC-50.
- No statistically significant trends (at 99% confidence) were identified for cobalt in BRGWC-50 or PZ-51I during the current reporting period.
- A statistically significant increasing trend (at 99% confidence) was identified for selenium in BRGWC-32S.

For the recently reported SSLs of cadmium in PZ-60I, cobalt in PZ-58I, PZ-60I, and PZ-61I, and beryllium in PZ-58I and PZ-60I, the sample population ( $n = 4$ ) is not sufficient for statistical trend test analysis. Concentration trends for the SSLs in these wells can be generated but statistical interpretation is not feasible at this time.

In addition to the assessment monitoring program at the Site, Georgia Power conducted a human health and ecological risk evaluation to evaluate cobalt and cadmium that are present at SSLs in groundwater at AP-BCD. The evaluation provides one of many lines of evidence that will be evaluated and factored into the remedy selection process, which will be completed in accordance with § 257.97. Based on this risk evaluation, concentrations of cobalt and cadmium detected in groundwater at AP-BCD between August 2016 and March 2020 are not expected to pose a risk to human health or the environment (Geosyntec, 2020). Cobalt and cadmium data collected since March 2020 are generally consistent with data used in the risk evaluation; therefore, the conclusions provided in the *2020 Risk Evaluation Report* are supported by current conditions. The risk evaluation will be updated by Georgia Power to include evaluation of selenium and beryllium as part of the Remedy Selection Report.

Georgia Power will continue to adaptively manage the Site and use ongoing data collection to evaluate the need for additional wells at AP-BCD. Pursuant to § 257.96, groundwater in the vicinity of AP-BCD continues to be monitored during the ACM phase in accordance with the established assessment monitoring program.

## 1.4 Corrective Measures Evaluated

As discussed in the ACM Report, the following corrective measures were initially considered to be potentially feasible for use at AP-BCD. A comparative screening of the corrective measures is provided in **Table 2**.

1. Geochemical Manipulation (In-Situ Injection)
2. Hydraulic Containment (Pump and Treat)
3. In-Situ Stabilization (ISS)
4. Monitored Natural Attenuation (MNA)
5. Permeable Reactive Barrier (PRB)
6. Phytoremediation
7. Subsurface Vertical Barrier Walls

ISS, PRB, and subsurface vertical barrier wall corrective measures have since been removed from consideration based on data evaluations presented in previous semiannual progress reports (Golder, 2021a, 2021b, 2022; Geosyntec, 2022 and 2023). Phytoremediation was excluded in these previous semiannual progress reports; however viability as a groundwater corrective measure has been reconsidered given current Site conditions.

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Golder, 2020) to support the groundwater remedy selection process and address potential changes in site conditions (e.g., successful reduction of constituent concentrations or changing trends) as appropriate during ash pond closure. The adaptive site management approach will take existing site conditions, including natural attenuation mechanisms, into account.

Characterization activities to evaluate attenuation mechanisms at the Site include collection of data necessary to progressively evaluate the existing and long-term effectiveness of these processes in the aquifer and reduce uncertainty for decision making at each screening step as listed in the USEPA guidelines for MNA of inorganic constituents (USEPA, 1999, 2007, and 2015). The 1999 MNA guidance originally introduced a “tiered approach” with three tiers of site-specific information, or lines of evidence, to evaluate the appropriate use of MNA at certain sites (USEPA, 1999). In 2007, the USEPA issued MNA technical guidance specific to inorganic contaminants (USEPA, 2007) that contained four “tiers.” The 2015 MNA guidance retains these four “tiers,” but describes them as “phases” as described below (USEPA, 2015). This 2015



MNA document for inorganic contaminants expands on and is designed to be a companion to the 1999 and 2007 MNA guidance. The phases are briefly outlined below:

- Phase I: Demonstration that the groundwater plume is *not expanding*.
- Phase II: Determination that the *mechanism and rate* of the attenuation process are sufficient.
- Phase III: Determination that the *capacity* of the aquifer is sufficient to attenuate the mass of contaminant within the plume and the *stability* of the immobilized contaminant is sufficient to resist re-mobilization.
- Phase IV: Design of a *performance monitoring program* based on an understanding of the mechanism of the attenuation process, and establishment of contingency remedies tailored to site-specific characteristics.

Georgia Power will address Phase IV, as appropriate, during the development of the future corrective action monitoring plan, after the final remedy selection report.

The data collection approach and the data interpretation presented within this semiannual progress report are informed by this tiered MNA guidance. It is noted, however, that the characterization data collected under this approach are also used to refine the conceptual site model (CSM) and evaluate other retained potential corrective measures, namely, in-situ injection and hydraulic containment.

## 2.0 SUMMARY OF WORK COMPLETED

The following section summarizes the field investigations and data evaluations completed in support of the ACM program since the issuance of the prior semiannual progress report in February 2023 (Geosyntec, 2023). The routine monitoring events associated with the assessment monitoring program are discussed in the 2023 Annual Groundwater Report, to which this semiannual progress report is appended.

### 2.1 Field Activities

Additional field investigation activities since the issuance of the prior semiannual progress report include assessment monitoring well installation and sampling as well as aquifer testing and a geophysical evaluation. These activities are detailed below.

#### 2.1.1 Well and Piezometer Installation and Sampling

Between May and July 2023, three piezometers (PZ-71I, PZ-72I, and PZ-73I) and two assessment monitoring wells (PZ-74I and PZ-75I) were installed to refine the nature and extent of selenium groundwater concentrations downgradient of assessment well BRGWC-32S and piezometer PZ-69I. Groundwater samples were collected between May and July 2023 for the Appendix III and Appendix IV constituent list along with select geochemical parameters to characterize groundwater quality downgradient of AP-D. In addition, groundwater samples from IW-D-2, BRGWC-32S, and PZ-69I were collected via low-flow techniques and frozen immediately as required by the laboratory for selenium speciation analysis in support of the ACM efforts for AP-D.

In May 2023, three temporary piezometers were installed in interstitial water at AP-B (IW-B-3, IW-B-4, and IW-B-5) (**Figure 7**). These piezometers were advanced using rotasonic drilling techniques with continuous core collection. A track mounted Terra Sonic 150 drill rig was used to install the wells, using a nominal 6-inch diameter outer drill casing and a 4-inch diameter core barrel. Boreholes were advanced to the CCR/native soil interface to confirm the bottom of CCR. Lithologic logging was conducted, but no samples of the material were retained. IW-B-04 and IW-B-05 were advanced several feet beyond the CCR native soil interface. These locations were backfilled with Hole Plug to the CCR/native soil interface and allowed to hydrate for a minimum of 1 hour before setting the well. The wells are screened within the CCR material of AP-B and are constructed with a 20-foot well screen segment. Following well development, interstitial water samples were collected for Appendix III, cobalt, and select geochemical parameters

in support of the ACM program for AP-B. Boring logs for these locations are included in **Appendix A**.

All groundwater samples were sent to GEL Laboratories under chain of custody procedures, with the exception of the selenium speciation samples, which were sent to Brooks Applied Labs, LLC. Details of the sampling methods are provided in the *2023 Annual Groundwater Report*; applicable results are discussed in Section 3.

### **2.1.2 Aquifer Testing**

In October 2022, slug testing was conducted at PZ-68D and PZ-69I in order to collect additional hydraulic conductivity data in the study area. Slug test data are provided in **Table 3**. The pneumatic slug method was used at PZ-69I, while a pump-down and recovery method was used at PZ-68D. For the pneumatic method, the well casing was pressurized using compressed nitrogen gas to displace the water within the piezometer. After the pressure was released using a manual valve, the groundwater recovery was measured using a downhole pressure transducer and data logger (Level Troll 700) until the water level reached 95% of the static pre-test conditions. For the pump-down method, a submersible pump was used to remove water from the piezometer, and the recharge measured using a downhole pressure transducer until the water level reached 95% of the static pre-test conditions.

Following collection of the displacement and recovery data, the processing and analysis was completed using the AQTESOLV curve-matching software to estimate horizontal hydraulic conductivity ( $K_h$ ). Both the Bouwer-Rice (1971) and Kentucky Geological Society or Hvorslev methods (as appropriate) were used to estimate  $K_h$  for each piezometer and the results for each method are presented for comparative purposes in **Table 3**.

### **2.1.3 Geophysical Investigation**

In March 2023, Spotlight Geophysical Services was contracted to complete a geophysical survey of the subsurface downgradient of AP-B and in the vicinity of the former coal pile in support of the ACM efforts and remedy selection at AP-B. Results of the survey are currently being evaluated and will be included in a subsequent semiannual progress report.

## **2.2 Data Analysis Activities**

In addition to the field activities discussed above, this section describes further data analysis including aquifer solids characterization and groundwater geochemical characterization.

### **2.2.1 Soil Characterization**

Total metal and mineralogical characterization data using whole rock analysis and X-ray diffraction (XRD) were reported for aquifer solids collected during the installation of PZ-68D from an elevation concurrent with the screen interval of BRGWC-32S, where the selenium SSL has been observed. Whole rock analysis is an analytical method for lithochemical classification of samples providing elemental analysis of sample mineralogy.

In addition, these aquifer solids were analyzed by sequential extraction procedure (SEP) to assess the geochemical fractionation of trace elements within the aquifer solids. SEP is chemical extractions used to remove metals from specific solid-associated phases. SEP uses progressively stronger reagents to solubilize metals from increasingly recalcitrant phases. Although these procedures do not identify the specific metal phases in a soil/aquifer matrix, they do provide a means to evaluate the class of solids and relative stability in relation to oxidation/reduction (redox) potential and pH fluctuations (Tessier et al, 1979; Kuo et al., 1983; Sposito et al., 1984; Hickey and Kittrick, 1984; Gruebel et al., 1988).

SEP data can be used to interpret the mechanism and potential reversibility of attenuation processes, consistent with Phases II and III of the MNA guidance. These data also supplement information collected during the baseline characterization, such as cation exchange capacity (CEC), as well as the presence of certain minerals and/or metal oxyhydroxides. SGS Environmental Services in Lakefield, ON uses a 6-step extraction procedure for SEP as described below.

- Step 1 (Water Soluble Phase): This extraction includes trace elements that are water soluble. Therefore, deionized water is utilized for this extraction step as the trace elements will solubilize into the solution.
- Step 2 (Exchangeable Phase): This extraction includes trace elements that are reversibly sorbed to soil minerals, amorphous solids, and/or organic material by electrostatic forces. These forces may be overcome by exposing the soil to a

concentrated electrolyte solution, such as 1 molar (M) magnesium sulfate that displaces the trace elements from solid surfaces.

- Step 3 (Carbonate Phase): This extraction targets trace elements that are sorbed or otherwise bound to carbonate minerals. This phase is soluble in a mild acid solution (e.g., 1M sodium acetate solution in 25% acetic acid at pH 4.5 – 5 or acetic acid (buffered to pH 3–3.5 or 5) and the complexing agent disodium ethylenediaminetetraacetic acid at pH 4.6).
- Step 4 (Metal Oxide Phase or reducible fraction): Trace elements bound to crystalline hydroxides of iron or manganese are extracted by establishment of reducing conditions. This can be achieved using a solution of 1M hydroxylamine hydrochloride in acetic acid, a sodium citrate/sodium dithionite buffer, or an ascorbic acid/ammonium oxalate mixture. This phase often provides significant attenuation capacity.
- Step 5 (Organic Phase or oxidizable fraction): This extraction targets trace elements strongly bound via chemisorption to organic material. Oxidation of soil organic matter (e.g., hydrogen peroxide [H<sub>2</sub>O<sub>2</sub>] in an acidic medium, sodium hypochlorite at pH 9.5, tetrasodium pyrophosphate at pH 9.5, or a hydrogen peroxide/ammonium acetate mixture), will bring into solution metals bound to organic functional groups.
- Step 6 (Residual Fraction): Trace elements remaining in the soil after the previous extractions will be distributed between silicates, phosphates, and refractory oxides. These residual metals can be removed from the soil through total dissolution with concentrated acid (e.g., hydrofluoric acid, nitric acid, hydrochloric acid, and boric acid). These are mostly stable, and naturally occurring fraction, which are not easily leached nor provides notable attenuating capacity for trace elements in groundwater. The laboratory results are included as **Appendix B**.

### 2.2.2 Groundwater Analytical Analysis

The analytical groundwater data reported for the assessment monitoring event conducted in January 2023 along with the analytical data collected from interstitial water in AP-B were evaluated in support of characterizing the nature and extent of cobalt impacts downgradient of AP-B. In addition, this data was used to assess if previously identified

correlations observed between the cobalt SSLs and other groundwater constituents including pH and sulfate extended laterally downgradient.

The analytical groundwater data and selenium speciation results were also evaluated in support of assessing the nature and extent of selenium impacts downgradient of AP-D.

### 3.0 SUMMARY OF RESULTS

This section presents the results of the field and data analysis efforts outlined in Section 2.

#### 3.1 Summary of Field Activities

##### 3.1.1 Aquifer Testing

PZ-68D and PZ-69I were installed as an assessment monitoring well and piezometer, respectively between August and September 2022. PZ-68D is screened within bedrock. PZ-69I is screened within the lower portion of the saprolite and partially weathered rock (PWR), at or near the top of the underlying bedrock. The associated boring logs for these wells are provided in the well installation report included in the 2022 Semiannual Groundwater Report. The resulting  $K_h$  from aquifer testing for PZ-68D was  $7.2 \times 10^{-4}$  centimeters per second (cm/sec) (2.04 feet per day [ft/day]). The  $K_h$  for PZ-69I was  $1.1 \times 10^{-6}$  cm/sec (0.0031 ft/day), consistent with or lower than previous observations for the saprolite/PWR unit at the Site, which ranged from  $4.3 \times 10^{-5}$  to  $7.6 \times 10^{-3}$  cm/sec. These  $K_h$  values are also consistent with reference values for fractured crystalline rock ( $10^{-2}$  to  $10^{-6}$  cm/sec) and saprolite ( $10^{-3}$  to  $10^{-7}$  cm/sec) (Freeze and Cherry, 1979). A summary of the input parameters and results of the data analysis is included in **Table 3** and the curve-matching data plots generated in AQTESOLV are included in **Appendix C**.

#### 3.2 Summary of Data Analysis Activities

##### 3.2.1 Soil Characterization

Total metals and whole rock analyses were completed on solids collected during the installation of PZ-68D from elevations concurrent with the screen interval of BRGWC-32S to assess the inorganic and mineralogic characterization of the solid phase downgradient of AP-D. The quantitative total metals analysis (see **Table 4**) indicated that selenium was not detected above the analytical method detection limit in the solid phase.

Mineralogic characterization of the aquifer matrix was accomplished by whole rock analysis and XRD. Overall, the mineralogy by whole rock analysis in (see **Table 5**) is characterized by an abundance of silicates (e.g.,  $\text{SiO}_2$ ) and aluminum oxides (e.g.,  $\text{Al}_2\text{O}_3$ ) downgradient of AP-D. This observation was confirmed by XRD where quartz, plagioclase, and mica were the dominant mineral fractions (see **Table 6**). The presence of iron oxides (e.g.,  $\text{Fe}_2\text{O}_3$ ) was noted in the whole rock analysis up to approximately

7.65% and magnetite was identified at 0.4% in XRD. These iron oxides could potentially provide surface sites for adsorption onto the solid phase.

Finally, aquifer solids were evaluated for the fractionation of selenium using a 6-step SEP analysis method. The results are summarized in **Table 7**. The results confirm the findings of the total metals analysis indicating that selenium is not detected in any of the solid phase fractions. This suggests that selenium downgradient of AP-D is relatively mobile and in the aqueous phase under current geochemical conditions.

### 3.2.2 Groundwater Geochemical Analysis

Review of the groundwater analytical data (**Table 8**) in the vicinity of AP-B collected during the January 2023 groundwater sampling indicate that downgradient monitoring wells and piezometers screened in the transition zone between the PWR and bedrock generally have a lower pH and higher sulfate concentrations where cobalt, cadmium and/or beryllium impacts are observed compared to wells where impacts are not observed. This is consistent with prior groundwater data reported for previous assessment monitoring events. The correlations between aqueous cobalt concentrations and pH and sulfate are presented in **Figure 8**. Results of analytical data collected from IW wells installed in AP-B are also summarized in **Table 8**. The findings show that cobalt was not observed above the GWPS in the AP-B interstitial water samples collected.

Evaluation of the recent groundwater data in the vicinity of AP-D suggests minimal correlation of selenium impacts with other groundwater constituents. The increasing selenium concentration in BRGWC-32S is moderately correlated to increasing dissolved oxygen measurements in the field, which indicate a more aerobic environment that could limit in-situ reduction processes. The results of the selenium speciation investigation are presented in **Table 9**. This indicates that selenium downgradient of AP-D is in the selenate form (Se[VI]) or +6 oxidation state, which is characterized by high mobility in aqueous environments. The interstitial water sample from IW-D-2 in AP-D was non-detect for selenium.



#### 4.0 UPDATED CONCEPTUAL SITE MODEL

As noted previously, the closure strategy for AP-BCD will be closure by removal, thereby providing a source control measure that reduces potential for migration of CCR-related constituents to groundwater. The CSM indicates that, under current conditions, the groundwater exceedances are contained onsite, including the newly observed SSL of beryllium. Data collected since the previous semiannual progress report are consistent with and generally agree with the CSM described in the previous semiannual remedy selection and design progress report (Geosyntec, 2023).

- AP-B:
  - A statistically significant decreasing trend was observed for cadmium in BRGWC-50 (**Figure 9b**).
  - No statistically significant concentration trends were observed for cobalt in BRGWC-50 or PZ-51I when the January 2023 data were analyzed (**Figure 9c**).
  - While concentration trends could be plotted, statistical trend evaluation was not feasible due to the limited data population for beryllium in PZ-58I and PZ-60I (**Figure 9a**), cadmium in PZ-60I (**Figure 9b**), and cobalt in PZ-58I, PZ-60I, and PZ-61I (**Figure 9c**).
  - The downgradient lateral extent of beryllium and cadmium is delineated by assessment wells installed downgradient of AP-B (**Figures 3 and 4**).
  - The downgradient lateral extent of cobalt is delineated by sampling of surface water from Lake Sinclair (**Figure 5**). Additional characterization to delineate the full extent of cobalt in the vicinity of AP-B is ongoing.
  - The characterization of aquifer solids downgradient of AP-B indicate iron oxides could potentially provide surface sites and ion exchange capacities to attenuate cobalt and cadmium.
  - Previous data analyses conducted for select aquifer solid samples and presented in earlier semiannual progress reports (Geosyntec, 2022), suggest that cobalt and cadmium in soils both upgradient and downgradient of AP-B appear to be associated with metal oxides and more recalcitrant fractions such as the acid/sulfide fraction and the residual

fraction of the SEP. This observation indicates that iron oxides affect the transport of cobalt and cadmium in groundwater.

- Exceedances of cobalt downgradient of AP-B, appear to be correlated to the relatively lower pH, higher sulfate, and higher dissolved concentrations of iron and/or manganese in groundwater downgradient of AP-B (**Figure 8**). However, the apparent correlations are variable and specific evaluations are needed to explain the Site variability.
- AP-D:
  - A statistically significant increasing trend was observed for selenium in BRGWC-32S (**Figure 9d**).
  - The downgradient lateral extent of selenium is delineated by sampling of surface water from Lake Sinclair.
  - SEP data analyses conducted for aquifer solid samples suggest that selenium is not associated with any solid phase fractions. Selenium speciation indicates that selenium exists as selenate (Se[VI]). This observation indicates that selenium is predominantly present in the aqueous or mobile phase.
  - Mechanisms for selenium mobilization and attenuation are currently being evaluated.

## 5.0 UPDATED EVALUATION OF CORRECTIVE MEASURES

Based on the data collected to date, the following potential corrective measures will be retained for further evaluation.

- Geochemical Injections:
  - Geochemical injections include the use of an injection well network, or other means of introducing reagents or air into the subsurface, to promote conditions suitable for the attenuation of cobalt, cadmium, and selenium. AP-B treatability efforts, which focused on evaluating different amendments to alter the geochemical environment and promote attenuation of cobalt and cadmium, were completed by Golder and included in a previous semiannual remedy selection and design progress report (Geosyntec, 2022). The results suggested the potential for in-situ attenuation of cobalt and cadmium utilizing injections of buffer materials to increase the pH. While treatability testing for AP-D has not been completed, in-situ remediation via injection of reduced iron species including zero valent iron could lead to the reduction of mobile selenium species to elemental selenium. Alternatively, reduction of metals including cadmium, cobalt, and selenium may be achieved through the injection of organic carbon to microbially mediated precipitation of sulfides. Therefore, the applicability of injection mechanisms for the treatment of cadmium, cobalt, and selenium remains a potentially viable option.
- Hydraulic Containment (Pump and Treat):
  - Hydraulic containment refers to the use of groundwater extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse. Groundwater extraction and above-ground treatment is potentially a viable option.
- Monitored Natural Attenuation:
  - MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral

precipitation or oxidation-reduction [redox] reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. The characterization of aquifer solids presented in the previous and current progress reports suggest that the aquifer matrix has the potential for attenuation of the various constituents of interest at the Site. Therefore, MNA remains a viable corrective measure. MNA may either be a stand-alone corrective measure or be part of a combination of corrective measures to address groundwater impacts.

- Phytoremediation:

Phytoremediation is the use of plants to degrade, immobilize, or contain constituents in soil, groundwater, surface water, and sediments. This was previously excluded from consideration as unviable given the site-specific groundwater flow velocities. However, based on the current understanding of groundwater flow velocities downgradient of AP-BCD (specifically AP-B) and the screen intervals where the SSLs are observed, an engineered phytoremediation approach (TreeWell<sup>®</sup> system) would appear to be viable and will be retained for further evaluation.

As the beryllium SSL was just observed in the most recent semiannual assessment event, the evaluation and application of these retained corrective measures to address the beryllium SSL observed in PZ-58I and PZ-60I will be included in the February 2024 semiannual progress report.

Continued groundwater monitoring and updates to the statistical analyses will further refine the CSM and allow for the continued evaluation of an appropriate groundwater corrective measure at the Site.

## 6.0 PLANNED ACTIVITIES AND ANTICIPATED SCHEDULE

The proposed closure by removal approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. During the closure construction of AP-BCD, temporary changes in site conditions may occur that must be considered as part of remedy selection. Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Golder, 2020) to support the remedial strategy and address potential changes in site conditions as appropriate. The adaptive site management approach may be adjusted over the Site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary in support of efforts to refine the CSM and to continue assessment of the feasibility of the corrective measures retained for further evaluation. Once sufficient data are available to make technically sound decisions regarding the ability to implement one or more specific corrective measures, necessary steps will be taken to design and implement a remedy for AP-BCD in accordance with § 257.98.

Supplementary data collection and evaluation activities proposed to be completed during the next semiannual reporting period include:

- Continue evaluation of beryllium, cadmium, cobalt, and selenium in assessment monitoring wells.
- Evaluate if additional lateral assessment monitoring wells are necessary to characterize the nature and extent of cobalt downgradient of AP-B and to the north of PZ-64I.
- Progress geochemical investigations downgradient of AP-B and AP-D to identify the mechanisms of mobilization and potential attenuation of SSLs.
- Identify additional bench-scale treatability testing to support evaluation of in-situ geochemical injection remedial alternatives.
- Assess the application of geochemical modeling to support remedy selection.

Georgia Power will continue to prepare semiannual progress reports to document AP-BCD groundwater conditions, results associated with additional data collection, and the progress in selecting and designing a groundwater remedy in accordance with § 257.97(a). Georgia Power will include future semiannual progress reports in routine

groundwater monitoring and corrective action reports. Record keeping, notifications, and publicly accessible internet site requirements for the semiannual progress reports will be provided in accordance with § 257.105(h)(12), § 257.106(h)(9), and § 257.107(h)(9), respectively.

## 7.0 REFERENCES

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# TABLES

**Table 1**  
Monitoring Well Network Summary  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID	Hydraulic Location	Installation Date	Easting <sup>(1)</sup>	Northing <sup>(1)</sup>	Ground Surface Elevation (ft)	Top of Casing Elevation <sup>(2)</sup> (ft)	Top of Screen Elevation <sup>(2)</sup> (ft)	Bottom of Screen Elevation <sup>(2)</sup> (ft)	Well Depth (ft BGS)	Screen Interval Length (ft)
<b><i>AP-BCD Detection Monitoring Well Network</i></b>										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWA-12S*	Upgradient BCD	3/4/2014	2557142.89	1164286.80	431.6	434.64	383.7	373.7	58.3	10
BRGWA-12I*	Upgradient BCD	2/20/2014	2557138.79	1164301.32	431.5	434.39	364.3	354.3	77.6	10
BRGWA-23S	Upgradient BCD	7/26/2016	2557868.25	1162971.84	425.5	428.24	394.7	384.7	40.8	10
BRGWC-25I	Downgradient B	7/25/2016	2561315.08	1160583.67	355.0	357.37	344.5	334.5	20.5	10
BRGWC-27I	Downgradient C	7/22/2016	2559712.12	1159695.33	364.0	366.86	350.0	340.0	24.0	10
BRGWC-29I	Downgradient C	7/23/2016	2561050.03	1160297.65	350.6	353.23	340.6	330.6	20.0	10
BRGWC-30I	Downgradient D	7/18/2016	2557691.84	1161607.69	350.0	352.61	340.0	330.0	20.3	10
BRGWC-32S	Downgradient D	7/20/2016	2558497.97	1160677.67	403.6	406.39	368.6	358.6	45.0	10
BRGWC-45	Downgradient B	2/3/2018	2561075.38	1162229.68	381.6	384.58	335.0	325.0	57.0	10
BRGWC-47	Downgradient D	1/25/2018	2559456.75	1162700.66	408.8	411.20	327.2	317.2	92.0	10
BRGWC-50	Downgradient B	1/31/2018	2562372.96	1161593.45	378.8	381.35	324.2	314.2	65.0	10
BRGWC-52I	Downgradient B	8/6/2018	2562145.22	1161274.99	381.2	383.87	317.3	307.3	73.9	10
<b><i>AP-E Detection Monitoring Well Network</i></b>										
BRGWA-2S	Upgradient BCD & E	4/2/2014	2549952.59	1167139.69	440.4	443.20	406.2	396.2	44.6	10
BRGWA-2I	Upgradient BCD & E	3/14/2014	2549957.26	1167129.90	440.5	443.14	386.6	376.6	64.3	10
BRGWA-5S	Upgradient BCD & E	4/3/2014	2549415.60	1170177.42	440.8	443.86	411.2	401.2	40.0	10
BRGWA-5I	Upgradient BCD & E	4/3/2014	2549407.91	1170183.54	441.1	443.79	390.3	380.3	61.2	10
BRGWA-6S	Upgradient BCD & E	4/1/2014	2551540.90	1170732.82	455.8	458.96	416.5	406.5	49.7	10
BRGWC-17S	Downgradient E	3/13/2014	2554687.84	1166301.32	362.2	365.32	360.5	355.5	7.1	5
BRGWC-33S	Downgradient E	7/26/2016	2554064.97	1168057.09	414.2	416.68	398.2	388.2	26.4	10
BRGWC-34S	Downgradient E	7/25/2016	2554231.28	1167384.17	389.2	391.96	376.2	366.2	23.0	10
BRGWC-35S	Downgradient E	7/23/2016	2554476.13	1166646.02	363.7	366.31	346.7	336.7	27.4	10
BRGWC-36S	Downgradient E	7/26/2016	2554693.26	1165742.82	383.1	389.84	364.4	354.4	28.7	10
BRGWC-37S	Downgradient E	7/24/2016	2554979.63	1165093.07	444.4	447.05	390.8	380.8	63.6	10
BRGWC-38S	Downgradient E	7/22/2016	2555016.50	1164391.82	429.8	432.24	402.0	392.0	38.2	10

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<b>AP-BCD Assessment Monitoring Well Network</b>										
PZ-44	Downgradient B	2/2/2018	2561587.42	1161724.48	380.5	383.04	333.9	323.9	57.0	10
PZ-50D	Downgradient	10/8/2020	2562380.34	1161589.51	378.3	380.86	282.3	272.3	106.0	10
PZ-51S	Downgradient B	8/1/2018	2562433.07	1161613.24	377.9	380.27	337.9	332.9	45.4	5
PZ-51I	Downgradient	8/1/2018	2562439.35	1161631.12	378.0	380.52	323.1	313.1	65.0	10
PZ-51D	Downgradient B	10/9/2020	2562433.15	1161640.16	378.1	380.75	282.1	272.1	106.0	10
PZ-57I	Downgradient B	3/24/2021	2562170.21	1161582.31	379.4	382.50	313.8	303.8	75.9	10
PZ-58I	Downgradient B	3/27/2021	2562297.82	1161579.00	379.3	382.27	325.7	315.7	63.9	10
PZ-59I	Downgradient B	3/31/2021	2562329.80	1161654.90	379.9	383.49	323.5	313.5	66.0	10
PZ-60I	Downgradient B	3/29/2021	2562330.79	1161588.01	379.5	382.61	329.0	319.0	60.8	10
PZ-61I	Downgradient B	3/30/2021	2562429.63	1161621.94	377.7	380.64	312.0	302.0	76.0	10
PZ-62I	Downgradient B	1/6/2022	2562336.00	1161478.90	378.1	380.95	318.1	308.1	70.0	10
PZ-63I	Downgradient B	1/5/2022	2562233.10	1161371.20	378.6	381.31	332.1	322.1	56.5	10
PZ-64I	Downgradient B	9/10/2022	2562404.29	1161787.72	379.4	381.94	320.6	310.6	69.3	10
PZ-65I	Downgradient B	9/09/2022	2562240.57	1161692.72	379.6	382.06	320.9	310.9	69.3	10
PZ-66I	Downgradient B	9/08/2022	2562134.65	1161747.91	380.9	383.52	323.1	313.1	68.3	10
PZ-68D	Downgradient D	9/06/2022	2558512.90	1160690.48	402.5	405.25	328.8	318.8	84.3	10
PZ-74I	Downgradient D	5/24/2023	2557970.94	1160189.30	368.3	371.13	330.5	320.5	48.0	10
PZ-75I	Downgradient D	6/27/2023	2558343.03	1160009.37	354.9	357.86	337.9	327.9	27.4	10
<b>AP-E Assessment Monitoring Well Network</b>										
PZ-13S	Downgradient	3/19/2014	2555276.64	1168011.19	406.5	409.97	382.2	372.2	34.7	10
PZ-52D	Downgradient E	5/14/2020	2554051.53	1168053.71	414.3	417.03	364.8	354.8	59.5	10
PZ-53D	Downgradient E	5/17/2020	2554984.36	1164393.74	431.6	434.68	302.2	292.2	139.4	10
PZ-70I	Downgradient E	8/16/2022	2555374.08	1164326.66	422.9	425.70	363.4	373.4	52.9	10
<b>Piezometers</b>										
PZ-1D	Upgradient	4/4/2014	2551598.09	1171999.19	462.9	463.41	397.4	302.9	160.0	94.5
PZ-1I	Upgradient	3/10/2014	2551577.63	1171995.75	461.9	464.71	392.8	382.8	79.5	10
PZ-1S	Upgradient	3/20/2014	2551588.02	1171996.20	462.4	465.07	407.8	397.8	65.0	10
PZ-3D	Upgradient	3/27/2014	2550275.05	1165474.25	486.7	487.50	438.7	358.6	130.0	82
PZ-3I	Upgradient	3/11/2014	2550273.05	1165494.61	486.5	489.49	442.3	432.3	54.6	10
PZ-3S	Upgradient	3/11/2014	2550274.66	1165484.43	487.0	490.53	457.5	447.5	39.9	10
PZ-4I	Upgradient	3/11/2014	2551282.08	1163246.61	479.9	482.98	443.5	433.5	46.8	10
PZ-4S	Upgradient	3/10/2014	2551270.14	1163247.97	479.9	482.87	460.3	450.3	30.0	10
PZ-7S	Downgradient	4/1/2014	2553055.64	1169419.33	449.0	451.57	414.9	404.9	44.5	10
PZ-8S	Upgradient	4/1/2014	2551188.94	1167801.20	450.5	453.08	411.4	401.4	49.5	10
PZ-9S	Upgradient	3/5/2014	2553089.53	1162633.36	466.1	469.28	428.5	418.5	48.0	10
PZ-10S	Downgradient	3/5/2014	2554990.43	1164021.55	431.0	433.85	402.4	392.4	39.0	10
PZ-11S*	Downgradient	2/20/2014	2557002.59	1162467.37	390.9	393.99	376.8	366.8	24.5	10
PZ-12D*	Downgradient	4/14/2014	2557136.26	1164311.85	431.4	434.09	350.1	290.1	141.7	60
PZ-14I	Downgradient	3/20/2014	2554365.65	1168398.28	419.9	422.71	376.5	366.5	53.8	10
PZ-14S	Downgradient	3/20/2014	2554359.23	1168398.59	420.2	423.31	393.0	383.0	37.6	10
PZ-15I	Downgradient	3/25/2014	2554399.25	1167721.02	400.2	403.06	321.9	311.9	88.7	10
PZ-15S	Downgradient	3/27/2014	2554394.06	1167720.25	400.1	402.90	370.2	360.2	39.9	10
PZ-16I	Downgradient	3/14/2014	2554587.53	1166980.59	379.5	382.45	351.3	341.3	38.6	10
PZ-16S	Downgradient	3/18/2014	2554581.44	1166977.63	379.3	382.52	370.6	360.6	19.1	10
PZ-17I	Downgradient	3/17/2014	2554702.42	1166313.81	362.3	365.33	329.2	319.2	43.5	10
PZ-18I	Downgradient	2/26/2014	2557745.51	1160766.13	359.6	362.55	331.3	321.3	38.4	10
PZ-18S	Downgradient	3/26/2014	2557747.42	1160757.41	359.7	362.82	345.0	335.0	24.2	10
PZ-19I	Downgradient	3/4/2014	2558899.87	1159797.10	368.9	371.74	335.6	325.6	43.7	10

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PZ-19S	Downgradient	3/4/2014	2558894.60	1159805.43	368.4	371.42	350.8	340.8	28.0	10
PZ-20I	Downgradient	3/5/2014	2560160.17	1159495.25	362.2	365.34	343.1	333.1	29.5	10
PZ-20S	Downgradient	3/5/2014	2560157.16	1159490.13	362.2	365.41	357.3	347.3	15.3	10
PZ-21I	Downgradient	3/10/2014	2561328.17	1160591.42	355.8	358.92	341.8	331.8	24.4	10
PZ-21S	Downgradient	3/11/2014	2561321.43	1160592.45	355.5	358.52	351.1	346.1	9.8	5
PZ-23I	Downgradient	7/29/2016	2557877.71	1162975.56	425.1	427.74	368.6	358.6	66.5	10
BRGWC-24S	Downgradient A	7/27/2016	2562862.19	1162400.95	351.4	354.10	319.9	309.9	42.0	10
PZ-26I	Downgradient	7/26/2016	2561626.45	1160669.20	368.0	370.63	347.5	337.5	30.5	10
PZ-28I	Downgradient	7/24/2016	2560151.53	1159505.00	362.5	364.81	348.5	338.5	24.0	10
PZ-31S	Downgradient	7/26/2016	2557971.75	1160936.81	374.3	376.77	344.8	334.8	39.5	10
PZ-39*	Downgradient	7/30/2016	2557460.52	1163675.53	432.0	434.78	397.3	387.3	44.7	10
PZ-40S	Downgradient A	2/14/2017	2562807.61	1162415.06	353.2	355.96	324.4	314.4	40.2	10
PZ-41S	Downgradient A	2/14/2017	2562759.44	1162431.76	354.3	357.17	320.5	310.5	44.2	10
PZ-42S	Downgradient A	2/9/2017	2562734.89	1162845.64	359.0	361.66	337.2	327.2	32.2	10
PZ-43	Downgradient A	2/7/2018	2562031.42	1162159.72	381.0	383.71	351.0	341.0	40.4	10
PZ-46	Downgradient B	2/5/2018	2560558.89	1162756.31	382.1	384.64	346.5	336.5	45.6	10
PZ-48	Downgradient D	1/24/2018	2558444.63	1163046.78	418.3	420.90	361.7	351.7	67.0	10
PZ-49	Downgradient B	1/30/2018	2561125.71	1163321.35	382.2	384.99	375.6	365.6	17.0	10
PZ-54	Downgradient E	5/15/2020	2555458.38	1164828.76	440.8	443.86	398.8	388.8	52.0	10
PZ-55	Downgradient E	5/19/2020	2554783.76	1163208.08	450.2	453.07	410.9	400.9	49.3	10
PZ-56	Downgradient B	5/20/2020	2554086.36	1162965.21	416.2	418.84	396.9	386.9	29.3	10
PZ-67	Downgradient B	9/07/2022	2561919.76	1161831.98	378.8	381.48	351.0	341.0	38.3	10
PZ-69I	Downgradient D	8/31/2022	2558447.46	1160311.39	377.0	379.36	348.2	338.2	39.3	10
PZ-71I	Downgradient D	5/2/2023	2558230.83	1160295.35	382.6	385.34	352.8	342.8	40.0	10
PZ-72I	Downgradient D	5/9/2023	2558394.65	1160133.29	365.9	368.57	342.0	332.0	34.2	10
PZ-73I	Downgradient D	5/10/2023	2558559.30	1160226.37	349.9	352.63	334.9	324.9	25.3	10
PB-1S*	Downgradient	1/22/2019	2556355.89	1164910.63	400.4	403.16	372.4	362.4	38.0	10
PB-2D*	Downgradient	12/4/2018	2556914.34	1164853.67	414.9	416.71	367.9	357.9	57.0	10
PB-4S*	Downgradient	1/16/2019	2556069.32	1164335.20	409.3	411.15	371.3	361.3	48.0	10
PB-4D*	Downgradient	1/16/2019	2556060.72	1164339.50	409.0	412.12	304.5	294.5	114.5	10
PB-7S*	Downgradient	1/14/2019	2556186.30	1163831.09	399.7	402.88	376.7	366.7	33.0	10
PB-8S*	Downgradient	1/8/2018	2556792.21	1163018.39	398.6	401.82	373.6	363.6	35.0	10
PB-8D*	Downgradient	1/8/2018	2556786.65	1163024.53	398.2	401.74	304.2	294.2	106.0	10
PB-10S*	Downgradient	1/16/2019	2558551.25	1163589.10	397.6	400.91	374.6	364.6	33.0	10
PB-10D*	Downgradient	1/16/2019	2558546.62	1163593.43	397.5	400.31	322.5	312.5	85.0	10
PB-13S*	Downgradient	12/10/2018	2556626.03	1162084.43	370.8	373.31	330.8	320.8	50.0	10
PB-13D	Downgradient	12/10/2018	2556638.88	1162084.53	371.1	373.77	284.1	274.1	97.0	10

Notes:

ft = feet

ft BGS = feet below ground surface

-- = not applicable

\* = piezometers that were abandoned between May and June 2023

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

**Table 2**  
Evaluation of Remedial Technologies  
Plant Branch AP-BCD, Putnam County, Georgia

Regulatory Citation for Criteria: Corrective Measure	Description	40 CFR 257.96(C)(1)		40 CFR 257.96(C)(1)	40 CFR 257.96(C)(1)
		Performance	Reliability	Ease of Implementation	Potential Impacts
<b>Geochemical Approaches (In-Situ Injection)</b>	Use of an injection well network, or other means of introducing reagents, microbes, or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of cadmium (Cd), cobalt (Co), and selenium (Se). The main attenuation mechanism for Co and Cd is sorption, which is more dependent on pH than redox. Under anaerobic conditions, Co would be attenuated within sparingly soluble sulfide minerals; which might also increase the attenuation of Cd. Under aerobic conditions, soluble iron or manganese and oxygen (either via air sparging or through a chemical oxidant) would be injected to promote the formation of iron or manganese (oxy-) hydroxides for subsequent sorption of Co and Cd onto these mineral phases. If sufficient iron is present in groundwater, the use of air sparging alone may be considered to precipitate iron (oxy-) hydroxides for sorption. The main attenuation mechanism for Se is reduction, either microbially-mediated or abiotic, although precipitation and sorption with mineral surfaces can also play a key role in the attenuation of Se. In-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility of certain inorganic compounds, including Co and Se.	The immobilization of Co at neutral to alkaline pH and Se under reducing conditions can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. This immobilization has been shown, however immobilization under site-specific conditions requires careful study and testing. While aerobic approaches are somewhat less complex, additional aquifer characterization is needed to further evaluate these options. It is currently not well understood whether Cd can be efficiently attenuated using in-situ redox manipulations due to slow reaction kinetics. Cd attenuation under both aerobic and anaerobic conditions needs to be further evaluated but is expected to occur. Cd is more strongly sorbed to aluminum oxides than other metal oxides, and it is generally less sorptive and more mobile compared to Co.	Reliability dependent on permeability of the subsurface and the amount and distribution of reagents that can be consistently distributed. Reliable technology if injected materials can be distributed throughout the impacted aquifer. Bench- and/or pilot-scale treatability testing programs are needed to understand the biogeochemical processes that would effectively reduce migration of Co, Cd, and Se in groundwater.	Moderate. Installation of injection well network or other injection infrastructure would be required. Alternative installation approaches may be considered, such as along the downgradient edge of impacted groundwater, which would function similar to a PRB application. The potential for clogging of aquifer matrix and/or injection well infrastructure is an implantation consideration. Chemical distribution during injections (i.e., radius of influence) needs to be evaluated.	Minimal impacts are expected if remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Redox-altering processes have the potential to mobilize naturally-occurring constituents as an unintended consequence if not properly evaluated and implemented. Consideration of groundwater flow to nearby sensitive environments may be needed.
<b>Hydraulic Containment ("Pump and Treat")</b>	Hydraulic containment refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water, reinjection into the groundwater, or reuse [e.g., land application, coal combustion residual (CCR) conditioning, etc.]. It is applicable to a variable mix of inorganic constituents, including dissolved Co, Cd, and Se.	Pump and treat (P&T) can be effective at providing hydraulic control, but it is unclear whether full groundwater remediation can be achieved without further understanding attenuation mechanisms at the Site. At AP-BCD, implementation of the corrective measure is contingent on completing additional assessment activities (i.e., high-resolution site characterization, additional pump tests, flow modeling, and capture zone analysis). This is needed to refine the constituent distribution in the subsurface to target specific zones for pumping for improved mass recovery efficiency/ effectiveness and to further evaluate the potential remedy performance.	Generally reliable for hydraulic containment, but uncertainty exists whether groundwater remediation goals can be achieved within a reasonable time frame without further understanding attenuation mechanisms.	Moderate. Proven approach, and supplemental installation of extraction wells/trenches is fairly straightforward. The extracted groundwater may potentially require an above-ground treatment system. A variety of sorption and precipitation approaches exist for ex-situ treatment of Co, Cd, and Se. Operation and maintenance (O&M) requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Moderate. The main potential impacts are related to the presence and operation of an on-site above-ground water treatment facility and related infrastructure to convey and treat extracted groundwater. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone.
<b>In-Situ Stabilization (ISS)</b>	In-situ stabilization is a technique that uses mixing of subsurface soil or CCR with additives (typically Cementous in nature) to solidify the subsurface material in place and reduce future dissolution of compounds into groundwater. Additives typically include Portland cement, and the solidification is completed in-situ using large diameter augers.	Groundwater impacts would be addressed through source control and subsequent natural attenuation. This alternative would isolate/secure the source in a bound matrix, and over time, allow the concentrations of Co, Cd, and Se in downgradient groundwater to decline to below applicable standards.	In-situ stabilization can be a reliable corrective measure for Co, Cd, and Se in groundwater. Reliability is dependent on the permeability of the subsurface and effectiveness of the stabilization.	Difficult. Implementation of ISS will require a detailed design effort with bench scale treatability study to determine the appropriate amendment mix. Pilot testing will also be needed to verify the ability of equipment to solidify material at depth.	Potential impacts of the remedy will be negligible.
<b>Monitored Natural Attenuation (MNA)</b>	MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation, or oxidation-reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Attenuation mechanisms for inorganic constituents at CCR sites, including Co, Cd, and Se at AP-BCD are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (sorption or oxidation reduction reactions). Chemical attenuation processes include precipitation, and sorption reactions such as adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Further, oxidation-reduction (redox) reactions, via abiotic or biotic processes, can transform the valence states of some inorganic constituents to less soluble and thus less mobile forms. For Co and Cd, the main attenuation processes include sorption to iron and manganese oxides (Co and Cd), and formation of sparingly soluble sulfide minerals (Co). For Se, the main attenuation mechanisms are biotic or abiotic reduction to elemental Se, precipitation of metal selenates or selenites, and sorption to iron oxides.	Physical and chemical MNA mechanisms for Co, Cd and Se, including dilution, dispersion, sorption, and oxidation reduction reactions can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. Attenuation processes for Co and Cd are already occurring at the site as evidenced by groundwater data from the assessment wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted, and the attenuation processes already at work for Co and Cd at AP-BCD will further enhance ongoing MNA. Attenuation mechanisms for Se are currently being evaluated.	Reliable as long as the aquifer conditions that result in Co, Cd, and Se attenuation remain favorable and/or are being enhanced and sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved Co, Cd and/or Se, or in combination with a second technology.	Reasonably implementable with respect to infrastructure, but moderate to complex with respect to documentation. Proven approach, but additional data are needed to show that the existing attenuation capacity is sufficient to meet site objectives within a reasonable timeframe. A monitoring well network already exists to implement future groundwater monitoring efforts.	None. MNA relies on the natural processes active in the aquifer matrix to reduce constituent concentrations without disturbing the surface or the subsurface.
<b>Permeable Reactive Barrier</b>	PRB technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. Either ZVI- Carbon matrix or solid carbon (bio-barrier) are most likely viable for the concurrent removal of Co, Cd, and Se. The carbon could be composed of peat moss, mulch or another carbon source. Exact placement of the PRB would be contingent on finalization of the nature and extent of characterization. PRBs can also be constructed as "funnel and gate" systems, where a barrier wall directs groundwater to a smaller "treatment gate" filled with reactive media.	PRBs have been shown to effectively address Co, Cd, and Se in groundwater if the right mix of reactive materials (e.g., ZVI and carbon) is selected for concurrent removal/immobilization of these constituents. The approach is expected to achieve GWPS for both constituents as impacted groundwater passes through the reactive barrier. Cd redox kinetics may be slow and hence a thicker wall might be needed relative to solely treating for Co. Furthermore, additional testing is required to select the appropriate sorptive media mix that will not result in generation of unwanted byproducts, especially related to Cd and Se.	Reliable groundwater corrective measure technology, but loss of reactivity over time may require re-installation depending on the duration of the remedy. Additional data collection, including conducting a bench and/or pilot study, is needed to better characterize current attenuation mechanisms and/or select the appropriate reactive media mix for a PRB wall.	Moderate to difficult. Trenching would be required to install a mix of reactive materials in the subsurface. Continuous trenching may be the most feasible construction method. Site-specific geology (i.e., partially weathered bedrock layer) poses a possible constructability challenge when attempting to key PRB material into competent bedrock. Installation methods and materials are readily available. Once installed, treatment will be passive and O&M requirements are minimal if replacement of the PRB is not necessary.	Minimal impacts are expected following the construction of the remedy. However, ZVI has the potential to create anaerobic conditions downgradient of the PRB wall that may mobilize redox-sensitive, naturally occurring constituents. These conditions need to be carefully monitored. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures.
<b>Phytoremediation</b>	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure. Within the context of AP-BCD, this corrective measure would likely use an engineered TreeWell® phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. The system promotes root development to the targeted groundwater zone (depth), allowing for hydraulic control of impacted groundwater. In addition, immobilization of Cd, Co, and Se within the root zone as well as incidental uptake of dissolved Cd, Co, and Se with groundwater is expected to occur concurrent with hydraulic control.	Once established (typically at the end of the third growing season), a TreeWell® system is effective for providing hydraulic containment of groundwater, and potential reduction of Cd, Co, and Se concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Given the current groundwater flow velocities, the approach is considered viable. Additional aquifer testing and/or groundwater flow modeling may be needed to confirm the suitability at that time.	Engineered phytoremediation is a proven technology where hydrogeologic factors are taken into account (e.g., hydraulic conductivity, flow velocity, depth to impacted groundwater zone, etc.). This is considered an active remedial approach through the use of trees as the "pumps" driving the system. Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of TreeWell® units.	Reasonably implementable to moderate. Engineered approach has been proven effective, and specific depth zones can be targeted. Trees are installed as "tree wells" in a large diameter boring to get the roots deep enough to intercept impacted groundwater flow paths. Area must be clear of above and below-ground structures (i.e., power lines). The system, once established (approximately three growing seasons), is a self-maintaining, sustainable remedial system that has no external energy requirements and little maintenance (i.e., efforts normally associated with landscaping).	Minimal impacts are expected. In fact, there are several positive impacts expected, including enhanced aesthetics, wildlife habitat, and limited energy consumption.
<b>Subsurface Vertical Barrier Walls</b>	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. In general, barrier walls are designed to provide containment. Barrier walls can also be used in downgradient applications to limit discharge to a surface water feature or to reduce aquifer recharge from an adjacent surface water feature when groundwater extraction wells are placed near one. A variety of barrier materials can be used, including cement and/or bentonite slurries, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier. Though highly effective, vertical barrier walls may serve as groundwater dams, so mounding of groundwater behind barrier walls, or flow of groundwater around the ends of barrier walls, should be considered in corrective action design.	Barrier walls are a proven technology for groundwater cutoff at impoundments. Conventionally installed slurry walls are typically limited by installation depth, which is approximately 90 feet below ground surface (bgs). However, site-specific geologic and technology-specific considerations specific to AP-BCD may limit this depth to shallower installations. Within the context of AP-BCD, a barrier wall might be used in conjunction with a "funnel and gate" system for a PRB rather than a stand-alone technology. As such, groundwater with Co, Cd, and Se above GWPS could either be directed to "treatment gates" for passive treatment (in a PRB) or migration of impacted groundwater could be minimized via barrier wall installation. Additional subsurface investigations and compatibility testing with groundwater from the former CCR Unit will be needed.	Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is incidental and not the primary objective.	Moderate to difficult. Trenching will be required to fill in the various slurry mixes; alternatively, sheet pile installations can be accomplished without excavation of trenches. The application of barrier walls is limited by the depth of installation. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater may be required. O&M requirements are expected to include upkeep of infrastructure components (e.g., pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Minimal impacts are expected following the construction of the remedy. Short-term impacts during remedy construction can be mitigated through appropriate planning and health and safety measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected, which can affect other aspects of groundwater corrective action. Groundwater extraction may unintentionally alter the geochemistry within the wall that may result in the mobilization of other constituents that require treatment.

**Table 2**  
Evaluation of Remedial Technologies  
Plant Branch AP-BCD, Putnam County, Georgia

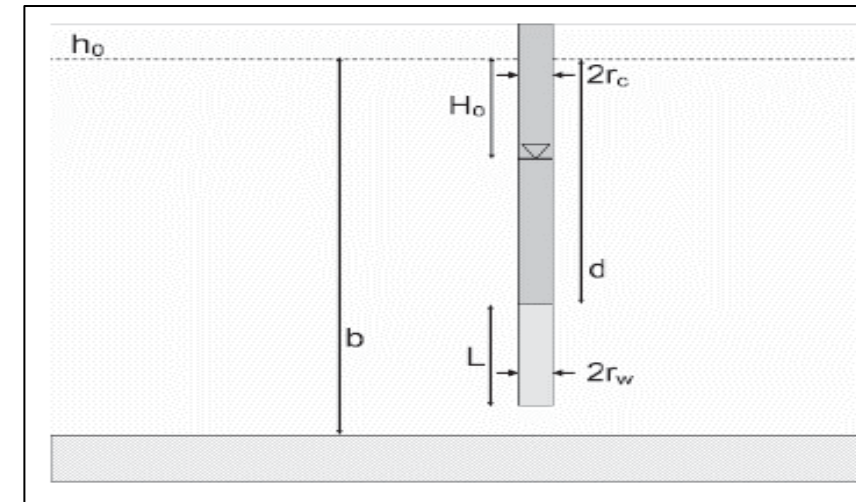
Regulatory Citation for Criteria: Corrective Measure	40 CFR 257.96(C)(2) Time Requirement to Begin/Complete	40 CFR 257.96(C)(3) Institutional Requirements	Other Env or Public Health Requirements	Relative Costs	Evaluation of Retainage
<b>Geochemical Approaches (In-Situ Injection)</b>	Installation of the injection network can be accomplished relatively quickly (1 to 2 months). However, a thorough pre-design investigation, geochemical modeling, and/or bench- and/or pilot- testing will be required to obtain design parameters prior to design and construction of the corrective measure, which may take up to 24 months. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation process kinetics of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.	No institutional requirements are expected at this time.	None expected at this point. Potential for mobilization of redox-sensitive constituents exists during implementation of an anaerobic attenuation approach. Following installation, the remedy is passive.	Medium. Dependent on expanse of injection network required and injectate volume required per derived design parameters.	Remedial approach retained as a targeted injection layout may result in decreased concentrations of Co, Cd, and Se in groundwater below the GWPS.
<b>Hydraulic Containment ("Pump and Treat")</b>	Installation of extraction wells and/or trenches can be accomplished relatively quickly (1 to 2 months). However, additional aquifer testing, system design and installation, and permit approval may be required, which may take up to 24 months. The initiation of the approach would be contingent on the start-up of the wastewater treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system, but uncertainty exists with respect to the time to achieve GWPS without additional data collection to better understand attenuation mechanisms for Co, Cd, and Se.	Depending on the effluent management strategy, modifications to the existing National Pollutant Discharge Elimination System (NPDES) permit may be required or obtaining a new underground injection control (UIC) permit may be needed if groundwater reinjection is chosen.	Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high. Dependent on remedy duration, complexity of above-ground treatment system, and volume of water processed.	During ash pond closure, there will be an on-site wastewater treatment plant that may be available for treatment of extracted groundwater. Therefore, P&T is a potentially viable interim corrective measure for Co, Cd, and Se in groundwater at Plant Branch and will be retained for further evaluation.
<b>In-Situ Stabilization (ISS)</b>	In-situ stabilization around the area of exceedance is predicted to take a number of years to complete, depending on the availability of specialized contractors, materials, and equipment.	No institutional requirements are expected at this time.	Changes to groundwater chemistry relative to the mobility of Appendix IV constituents following completion of ISS, where large volumes of amendments (i.e., Portland cement) are added to the subsurface, are unknown and would require pilot testing.	High. High cost for installation due to need for specialty contractors.	Not retained for further analysis; strategy is deemed impractical because AP-BCD will be closed by removal.
<b>Monitored Natural Attenuation (MNA)</b>	The infrastructure to initiate MNA is already in place. Demonstrating attenuation mechanisms and capacity can be time-consuming and can take up to 24 months. MNA is expected to be successful within a reasonable time frame following pond closure. Engineering measures will be implemented during closure of AP-BCD to minimize potential impacts to the subsurface during closure activities and routine groundwater monitoring will be used to verify that groundwater impacts remain stable or decrease over time.	No institutional requirements are expected at this time.	Little to no physical disruption to remediation areas and no adverse construction related impacts are expected on the surrounding community.	Low. Minimal cost requirements.	Under current conditions, attenuation processes for Cd and Co are already occurring as evidenced by groundwater data from assessment wells. Therefore, MNA is a potentially viable corrective measure for Co and Cd in groundwater at Plant Branch and will be retained for further evaluation. Se attenuation mechanisms are currently being evaluated.
<b>Permeable Reactive Barrier</b>	Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench- and/or pilot testing would be required to obtain design parameters prior to design and construction of the remedy, which may take up to 24 months. Once installed, the time to achieve GWPS downgradient of the PRB is anticipated to be relatively quick.	No institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive. However, certain treatment media (such as ZVI) have the potential to mobilize naturally occurring constituents downgradient of the PRB.	Medium. Relatively high cost for installation. Minimal O&M requirements if replacement is not necessary.	Because there is limited space available downgradient of wells where COCs exceed groundwater protection standards, PRB has not been retained for further consideration.
<b>Phytoremediation</b>	The design phase will require some groundwater modeling for optimal placement of the TreeWell® units, which may take up to 6 months. Depending on the number of required units, the installation effort is expected to last several weeks. Hydraulic capture/control is expected approximately three years after planting and system performance is expected to further improve over time.	No institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive and does not require external energy.	Medium. Mid-range cost for installation and minimal O&M requirements.	Given groundwater depth and velocity at the Site, phytoremediation presents a viable groundwater corrective measure although the limited physical space for installation of a phytoremediation system between the AP-BCD and the adjacent surface water bodies will need to be considered.
<b>Subsurface Vertical Barrier Walls</b>	Installation of a barrier wall can be accomplished relatively quickly (i.e., 6 to 12 months), depending on the final location and configuration. However, some design phase and additional aquifer and compatibility testing will be required, which may take up to 24 months. Once installed, preventing migration of constituents dissolved in groundwater is anticipated to be relatively quick. Since this approach does not treat the downgradient area of impacted groundwater but prevents migration from a source area, it will likely have to be maintained and coupled with other approaches.	No institutional requirements are expected at this time.	Due to the need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high. Dependent on length and depth of wall, remedy duration and complexity of above-ground treatment system.	Because there is limited space available downgradient of wells where COCs exceed groundwater protection standards, Subsurface Vertical Barrier Walls have not been retained for further consideration.

**Table 3**  
**Summary of Estimated Horizontal Hydraulic Conductivity Values**  
**Plant Branch AP-BCD, Putnam County, Georgia**

Well ID/Test No.	Screen Zone Material	Slug Test Type	Well Information						Horizontal Hydraulic Conductivity (Kh)					
			Depth to Sensor [ft bTOC]	Static DTW [ft bTOC]	DTW after Pressure Release [ft bTOC]	Top Screen Depth [ft TOC]	Bottom Screen Depth [ft bTOC]	Total Depth [ft bTOC]	Bouwer-Rice Kh [ft/day]	KGS or Hvorslev Kh [ft/day]	Geomean Kh [ft/day]	Bouwer-Rice Kh [cm/sec]	KGS or Hvorslev Kh [cm/sec]	Geomean Kh [cm/sec]
PZ-68D Test 1	Bedrock	Pumping	82.30	42.18	60.06	74.00	84.00	84.30	0.003	0.003	0.003	1.1E-06	1.2E-06	1.1E-06
PZ-69I Test 1	Saprolite/PWR	Pneumatic	37.30	23.01	31.82	29.00	39.00	39.30	2.178	2.637	2.031	7.7E-04	9.3E-04	7.2E-04
PZ-69I Test 2		Pneumatic	37.30	23.01	33.34	29.00	39.00	39.30	1.667	2.073		5.9E-04	7.3E-04	
PZ-69I Test 3		Pneumatic	37.30	23.01	32.10	29.00	39.00	39.30	1.756	2.011		6.2E-04	7.1E-04	

Notes:

- H<sub>o</sub>** Observed initial displacement (change in water level from static)
- H** Static water column height
- b** Saturated thickness of aquifer. If bottom of aquifer is unknown set b=bottom of well.
- K<sub>v</sub>/K<sub>h</sub>** Ratio of vertical to horizontal hydraulic conductivity
- d** Depth to top of well screen - this is the length from the water level (or top confining unit) to the top of the screen.
- L** Length of well screen
- T** Transducer Depth below the water table
- r(c)** Inside radius of well casing
- r(eq)** Radius of downhole equipment
- r(w)** Radius of well open or perforated interval
- r(sk)** Outside radius of well skin disturbed zone enveloping filter pack
- bTOC** Below Top Of Casing
- DTW** Depth To Water



1. For tests in which pumping was performed in lieu of applying pressurized gas, depth to water after pressure release refers to the depth after pumping is stopped.

**Table 4**  
 Summary of Soil Total Metals  
 Plant Branch AP-BCD, Putnam County, Georgia

<b>Location ID</b>	<b>PZ-68D</b>
<b>Sample Depth</b>	35 to 40 ft BGS
<b>Sample Date</b>	8/31/2022
<b>Analysis<sup>(1,2)</sup></b>	
<b>Antimony</b>	< 0.8
<b>Arsenic</b>	1
<b>Barium</b>	450
<b>Beryllium</b>	0.75
<b>Cadmium</b>	0.15
<b>Chromium</b>	47
<b>Cobalt</b>	22
<b>Iron</b>	49000
<b>Lead</b>	6
<b>Lithium</b>	14
<b>Manganese</b>	840
<b>Molybdenum</b>	0.7
<b>Selenium</b>	< 0.7
<b>Thallium</b>	0.42

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

ft BGS = feet below ground surface

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D.

Parameters are reported in units of microgram per gram ( $\mu\text{g/g}$ ).

(2) Metals were analyzed by EPA Method 6010D, 6020B, 7470A, anions were analyzed by EPA Method 300.0.



**Table 5**  
 Summay of Whole Rock Analysis  
 Plant Branch AP-BCD, Putnam County, Georgia

Location ID	<b>PZ-68D</b>	<b>Units</b>
Sample Depth	35 to 40 ft BGS	
Sample Date	8/31/2022	
Mineral/Compound		
<b>Al<sub>2</sub>O<sub>3</sub></b>	17.2	%
<b>CaO</b>	4.78	%
<b>Cr<sub>2</sub>O<sub>3</sub></b>	0.03	%
<b>Fe<sub>2</sub>O<sub>3</sub></b>	7.65	%
<b>K<sub>2</sub>O</b>	1.69	%
<b>LOI</b>	2.96	%
<b>MgO</b>	2.84	%
<b>MnO</b>	0.13	%
<b>Na<sub>2</sub>O</b>	3.25	%
<b>P<sub>2</sub>O<sub>5</sub></b>	0.35	%
<b>SiO<sub>2</sub></b>	57.3	%
<b>TiO<sub>2</sub></b>	1.14	%
<b>V<sub>2</sub>O<sub>5</sub></b>	0.03	%
<b>Sum</b>	99.4	%

Notes:  
 ft BGS = feet below ground surface

**Table 6**  
 Summary of X-ray Diffraction Analysis  
 Plant Branch AP-BCD, Putnam County, Georgia

Location ID		PZ-68D	Units
Sample Depth		35 to 40 ft BGS	
Sample Date		8/31/2022	
Mineral/Compound			
<b>Quartz</b>	SiO <sub>2</sub>	21.9	wt. %
<b>Plagioclase</b>	(NaSi,CaAl)AlSi <sub>2</sub> O <sub>8</sub>	35.7	wt. %
<b>Potassium-feldspar</b>	KAlSi <sub>3</sub> O <sub>8</sub>	3.1	wt. %
<b>Mica</b>	K(Mg,Fe)Al <sub>2</sub> Si <sub>3</sub> AlO <sub>10</sub> (OH) <sub>2</sub>	26.5	wt. %
<b>Kaolinite</b>	Al <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> (OH) <sub>4</sub>	--	wt. %
<b>Gypsum</b>	CaSO <sub>4</sub> ·2H <sub>2</sub> O	1.3	wt. %
<b>Magnetite</b>	Fe <sub>3</sub> O <sub>4</sub>	0.4	wt. %
<b>Diopside</b>	CaMgSi <sub>2</sub> O <sub>6</sub>	1.8	wt. %
<b>Actinolite</b>	Ca <sub>2</sub> (Mg,Fe) <sub>5</sub> Si <sub>8</sub> O <sub>22</sub> (OH) <sub>2</sub>	4.3	wt. %
<b>Chlorite</b>	(Fe,(Mg,Mn) <sub>5</sub> ,Al)(Si <sub>3</sub> Al)O <sub>10</sub> (OH) <sub>8</sub>	3.9	wt. %
<b>Grossular</b>	Ca <sub>3</sub> Al <sub>2</sub> Si <sub>3</sub> O <sub>12</sub>	0.5	wt. %
<b>Ilmenite</b>	FeTiO <sub>3</sub>	0.7	wt. %
<b>Sum</b>		100.0	wt. %

Notes:

-- = Indicates the mineral was not identified.

ft BGS = feet below ground surface

wt. % = weight percent

**Table 7**  
 Summary of Sequential Extraction Procedure  
 Plant Branch AP-BCD, Putnam County, Georgia

Location ID	SEP Fraction	PZ-68D
Sample Depth		35 to 40 ft BGS
Sample Date		8/31/2022
Analyte		
Selenium	Water Soluble	< 0.7
	Exchangeable Metals	< 0.7
	Carbonates	< 0.7
	Fe/Mn oxides	< 0.7
	Organics	< 0.7
	Residual	< 0.7

**Notes:**

All results are reported in mg of constituent/kg of total sample mass.

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

SEP = sequential extraction procedure

ft BGS = feet below ground surface

Fe = Iron

Mn = Manganese

Sulfate data is unavailable using SEP analysis.

**Table 8**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:	BRGWA-2S	BRGWA-2S	BRGWA-2I	BRGWA-2I	BRGWA-5S	BRGWA-5S	BRGWA-5I	BRGWA-5I	BRGWA-6S	BRGWA-6S	BRGWA-12S	BRGWA-12S	BRGWA-12I	BRGWA-12I	BRGWA-23S	BRGWA-23S	BRGWC-25I	
Sample Date:	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	1/24/2023	8/23/2022	
Parameter <sup>(1,2,3)</sup>																		
<b>APPENDIX III</b>	<b>Boron</b>	0.00532 J	< 0.0052	0.00592 J	< 0.0052	0.00538 J	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	0.0053 J	0.00653 J	0.00884 J	0.0498	0.0437	1.38
	<b>Calcium</b>	4.65	4.86	13.9	14.2	18.2	19.4	14.3	15.8	3.97	3.90	6.09	5.62	15.8	13.7	8.09	6.97	51.5
	<b>Chloride</b>	2.18	2.16	2.02	2.09	3.59	3.56	3.64	3.93	2.39	2.30	5.46	3.79	2.50	2.49	3.16	2.88	5.38
	<b>Fluoride</b>	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	0.158	< 0.033	0.149	< 0.033	0.12	0.129	0.0926 J	0.151	0.214	0.157	0.231	0.186
	<b>pH</b>	5.95	5.26	6.67	6.70	6.36	6.47	6.24	6.42	6.51	6.54	5.90	5.97	6.39	6.48	5.66	5.76	6.11
	<b>Sulfate</b>	0.452	0.465	5.66	3.58	0.521	0.66	2.21	3.34	0.479	0.484	0.636	0.628	1.84	1.80	24.4	19.7	158
	<b>TDS</b>	45.0	63.0	117	93.0	101	104	107	124	52.0	64.0	55.0	59.0	104	114	103	102	315
<b>APPENDIX IV</b>	<b>Antimony</b>	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0241	0.0245	< 0.001	< 0.001	< 0.001
	<b>Arsenic</b>	< 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	< 0.002	< 0.002
	<b>Barium</b>	0.012	0.0118	0.00954	0.00453	0.0379	0.0394	0.0241	0.0303	0.014	0.0132	0.0607	0.0576	0.0602	0.0512	0.0573	0.0468	0.0259
	<b>Beryllium</b>	< 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	< 0.0002	< 0.0002
	<b>Cadmium</b>	< 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	< 0.0003	< 0.0003	< 0.0003
	<b>Chromium</b>	0.00908 J	0.0095 J	< 0.003	< 0.003	0.00435 J	0.00572 J	0.00647 J	0.00513 J	0.0143	0.0139	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	<b>Cobalt</b>	0.000844 J	0.000829 J	0.000767 J	0.00154	< 0.0003	< 0.0003	0.000553 J	0.000677 J	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.000308 J	< 0.0003	0.00342
	<b>Lead</b>	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	<b>Lithium</b>	< 0.003	< 0.003	0.0262	0.00919 J	< 0.003	< 0.003	< 0.003	< 0.003	0.00314 J	0.00341 J	< 0.003	< 0.003	0.00451 J	0.00529 J	0.00792 J	0.00749 J	< 0.003
	<b>Mercury</b>	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	<b>Molybdenum</b>	< 0.0002	< 0.0002	0.0024	0.000601 J	< 0.0002	< 0.0002	0.00151	0.00192	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000413 J	0.000388 J	< 0.0002	< 0.0002	0.00105
	<b>Comb. Radium 226/228</b>	0.531 U	1.35 U	1.70 U	2.05 U	0.735 U	0.402 U	2.30	0.811 U	0.203 U	1.55 U	1.69 U	3.07	0.558 U	1.49 U	1.59 U	5.62	1.90 U
	<b>Selenium</b>	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
<b>Thallium</b>	< 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	< 0.0006	< 0.0006	
<b>GEOCHEM</b>	<b>Alkalinity (Bicarbonate as CaCO3)</b>	32.6	35.0	62.4	65.2	73.8	78.4	72.8	79.4	58.2	25.6	32.0	32.0	65.8	65.2	30.4	31.0	75.6
	<b>Alkalinity (Carbonate as CaCO3)</b>	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45
	<b>Alkalinity (total) as CaCO3</b>	32.6	35.0	62.4	65.2	73.8	78.4	72.8	79.4	58.2	25.6	32.0	32.0	65.8	65.2	30.4	31.0	75.6
	<b>Iron</b>	0.0763 J	0.0824 J	0.183	0.134	0.151	0.071 J	< 0.033	< 0.033	0.0701 J	0.0593 J	< 0.033	< 0.033	< 0.033	< 0.033	0.114	< 0.033	0.193
	<b>Magnesium</b>	4.86	5.34	8.82	8.28	8.51	9.02	10.4	10.9	4.06	4.14	3.53	3.28	4.0	3.98	4.69	4.43	21.4
	<b>Manganese</b>	0.0391	0.0348	0.0134	0.028	0.014	0.00658	< 0.001	0.00165 J	0.00329 J	0.00159 J	0.00103 J	0.00103 J	0.00506	0.00405 J	0.036	< 0.001	1.68
	<b>Nitrate</b>	--	0.327	--	1.41	--	0.173	--	0.371	--	0.638	--	0.945	--	0.438	--	0.261	--
	<b>Potassium</b>	0.439	0.432	5.88	2.85	0.635	0.522	0.909	1.35	0.685	0.706	2.55	2.54	3.37	3.61	2.52	2.0	4.20
	<b>Sodium</b>	3.36	3.63	5.73	5.29	4.03	4.78	4.93	5.22	2.44	2.54	5.41	5.52	10.3	11.0	9.81	10.0	16.7
<b>Sulfide</b>	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	

Notes:  
 -- = Parameter was not analyzed  
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).  
 H = Indicates the analytical holding time was exceeded for the parameter.  
 J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).  
 TDS = total dissolved solids  
 U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)  
 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).  
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.  
 (3) The pH value presented was recorded at the time of sample collection in the field.

**Table 8**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:	BRGWC-25I	BRGWC-27I	BRGWC-27I	BRGWC-29I	BRGWC-29I	BRGWC-30I	BRGWC-30I	BRGWC-32S	BRGWC-32S	BRGWC-45	BRGWC-45	BRGWC-47	BRGWC-47	BRGWC-50	BRGWC-50	
Sample Date:	1/26/23	8/25/2022	1/25/2023	8/24/2022	1/26/23	8/24/2022	1/26/23	8/25/2022	1/24/2023	8/25/2022	1/25/2023	8/23/2022	1/26/23	8/24/2022	1/25/2023	
Parameter <sup>(1,2,3)</sup>																
<b>APPENDIX III</b>	Boron	1.45	1.03	1.14	1.13	1.07	2.15	2.17	1.07	1.11	0.0458	0.0355	0.547	0.661	0.406	0.383
	Calcium	57.6	64.0	55.7	61.0	68.0	316	361	48.5	46.6	33.5	34.3	323	331	215	216
	Chloride	6.96	4.65	3.81	5.84	5.59	4.91	3.82	3.96	4.49	14.9	27.4	4.49	4.96	15.8	14.7
	Fluoride	0.202	0.234	0.152	0.103	0.0935 J	0.318	0.167	0.138	0.082 J	0.166	0.163	< 0.033	0.117	0.497	0.432
	pH	6.18	6.03	5.63	4.39	4.3	6.38	6.28	6.06	6.05	5.74	5.82	5.61	5.65	5.01	5.18
	Sulfate	182	176	150	298	293	935	1,030	254	247	114	102	1,410	1,310	1,400	1,290
	TDS	339	311	260	383	419	1,540	1,680	437	425	248	251	2,060	2,010	1,990	2,040
<b>APPENDIX IV</b>	Antimony	< 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
	Arsenic	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00283 J	0.00208 J	< 0.002	< 0.002	< 0.002	0.00225 J	0.00228 J	0.0024 J	0.00250 J	0.00236 J
	Barium	0.0293	0.0161	0.0166	0.0175	0.018	0.0389	0.0397	0.0231	0.0182	0.0574	0.0695	0.0285	0.0311	0.0166	0.0165
	Beryllium	< 0.0002	< 0.0002	< 0.0002	0.000845	0.00109	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00831	0.00962
	Cadmium	< 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	0.00818	0.00726
	Chromium	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cobalt	0.0032	0.0079	0.00711	0.0066	0.00823	0.00163	0.00158	< 0.0003	< 0.0003	0.00357	0.00258	< 0.0003	0.000376 J	1.42	1.35
	Lead	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000595 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Lithium	< 0.003	< 0.003	< 0.003	0.00304 J	0.00331 J	0.0238	0.0279	0.00430 J	0.007 J	< 0.003	0.00333 J	0.0474	0.0506	0.0428	0.0542
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	0.00092 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00141	0.0014	< 0.0002	< 0.0002	0.000424 J	0.000545 J	0.000296 J	0.00027 J	< 0.0002	< 0.0002
	Comb. Radium 226/228	3.24	1.79 U	1.53 U	1.97	2.27 U	3.26	2.73 U	1.32 U	2.25	2.44	1.29 U	3.74	3.28	1.87 U	5.71
	Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.218	0.198	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00176 J	0.00189 J
Thallium	< 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	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	82.8	33.4	31.0	< 1.45	< 1.45	132	131	30.2	34.0	43.4	38.4	28.4	25.6	9.4	14.2
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	82.8	33.4	31.0	< 1.45	< 1.45	132	131	30.2	34.0	43.4	38.4	28.4	25.6	9.4	14.2
	Iron	0.453	0.0361 J	< 0.033	24.8	23.0	1.41	2.33	< 0.033	< 0.033	0.166	0.0752 J	0.101	0.0949 J	0.2	0.193
	Magnesium	22.7	5.73	6.59	7.83	8.54	57.3	64.4	30.9	32.8	17.9	17.3	125	123	151	153
	Manganese	1.71	0.674	0.885	1.20	1.43	1.15	1.22	0.0107	< 0.001	0.302	0.254	0.0103	0.0154	83.4	79.6
	Nitrate	1.17	--	0.659	--	0.102	--	< 0.033	--	0.223	--	0.126 J	--	0.0735 J	--	< 0.033
	Potassium	4.59	5.03	5.89	10.2	10.0	6.13	6.54	2.25	2.70	3.19	3.83	11.8	12.6	11.4	10.8
	Sodium	17.8	14.6	15.5	17.5	17.9	30.5	32.4	26.6	27.4	14.5	16.8	42.5	46.0	51.7	51.5
Sulfide	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	

Notes:  
 -- = Parameter was not analyzed  
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).  
 H = Indicates the analytical holding time was exceeded for the parameter.  
 J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).  
 TDS = total dissolved solids  
 U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)  
 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).  
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.  
 (3) The pH value presented was recorded at the time of sample collection in the field.

**Table 8**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:	BRGWC-521	BRGWC-521	PZ-18S	PZ-19S	PZ-44	PZ-44	PZ-50D	PZ-50D	PZ-51S	PZ-51S	PZ-51I	PZ-51I	PZ-51D	PZ-51D	PZ-57I	PZ-57I	PZ-58I	PZ-58I		
Sample Date:	8/25/2022	1/25/2023	3/29/2023	3/29/2023	8/25/2022	1/25/2023	8/25/2022	1/27/2023	8/24/2022	1/30/2023	8/24/2022	1/26/23	8/24/2022	1/26/2023	8/25/2022	1/30/2023	8/24/2022	1/26/2023		
Parameter <sup>(1,2,3)</sup>																				
<b>APPENDIX III</b>	Boron	1.56	1.79	0.832	1.37	1.59	1.47	0.278	0.277	0.00563 J	0.0102 J	0.459	0.445	0.036	0.0397	0.496	0.554	0.464	0.44	
	Calcium	38.3	36.3	53.7	46	27.2	25.1	210	214	7.94	7.87	197	198	118	119	53	102	146	151	
	Chloride	6.27	6.35	5.35	5.97	6.28	5.84	26.2	11.5	4.58	4.45	9.64	9.5	17.5	21.8	8.41	9.46	10.7	12.1	
	Fluoride	0.157	0.169	< 0.033	0.0549 J	0.184	0.13	0.106	0.151 J	0.131	0.0983 J	0.148	0.12	0.318	0.354	0.235	0.297	1.09	1.19	
	pH	6.21	6.25	5.36	5.54	6.06	6.13	6.11	6.24	6.12	6.18	5.49	5.44	7.15	7.2	5.91	5.39	3.81	3.93	
	Sulfate	142	145	265	231	47.0	41.0	1,060	885	0.872	0.733	1,240	1,150	377	370	294	618	840	1,070	
	TDS	296	276	419	371	167	156	1,750	1,400	90.0	70.0	1,740	1,750	715	693	554	898	1,380	1,440	
<b>APPENDIX IV</b>	Antimony	< 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	< 0.001	
	Arsenic	< 0.002	< 0.002	--	--	< 0.002	0.00221 J	0.00235 J	0.00215 J	< 0.002	< 0.002	0.00222 J	< 0.002	0.00308 J	0.00275 J	< 0.002	< 0.002	0.00245 J	< 0.002	
	Barium	0.0179	0.0249	--	--	0.056	0.0498	0.0257	0.0315	0.0223	0.023	0.0154	0.0152	0.0584	0.0481	0.0219	0.022	0.0181	0.0167	
	Beryllium	< 0.0002	< 0.0002	--	--	< 0.0002	< 0.0002	0.000269 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000393 J	0.000787	0.0335	0.0377	
	Cadmium	< 0.0003	< 0.0003	--	--	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.00478	0.00101	< 0.0003	< 0.0003	< 0.0003	0.00132	0.0046	0.00435	
	Chromium	< 0.003	< 0.003	--	--	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	
	Cobalt	< 0.0003	< 0.0003	--	--	< 0.0003	< 0.0003	0.506	0.0728	0.00193	0.00115	0.0239	0.0231	0.000306 J	< 0.0003	0.0194	0.151	0.503	0.518	
	Lead	< 0.0005	< 0.0005	--	--	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000894 J	0.000895 J
	Lithium	0.0162	0.0186	--	--	0.00652 J	0.00728 J	0.0255	0.0274	< 0.003	< 0.003	0.0222	0.0247	0.00420 J	0.00883 J	0.0231	0.0359	0.0488	0.0553	
	Mercury	< 0.000067	< 0.000067	--	--	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067
	Molybdenum	0.000471 J	0.000609 J	--	--	< 0.0002	< 0.0002	0.00109	0.000817 J	< 0.0002	< 0.0002	0.000313 J	0.000283 J	0.00171	0.00085 J	< 0.0002	< 0.0002	< 0.0002	< 0.0002	
	Comb. Radium 226/228	4.97	7.94	--	--	1.60 U	2.49 U	2.26	2.66 U	1.20 U	3.19	0.625 U	1.53 U	3.33	3.70	0.773 U	3.27	1.16 U	4.03	
	Selenium	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00348 J	0.00265 J
Thallium	< 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	< 0.0006	< 0.0006	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	57.2	46.0	22	24.8	78.0	79.0	57.0	78.8	64.2	68.0	64.6	23.2	22.0	128	27.0	13.2	< 1.45	< 1.45	
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	78.0	< 1.45	57.0	< 1.45	64.6	< 1.45	22.0	< 1.45	129	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	
	Alkalinity (total) as CaCO3	57.2	46.0	22	24.8	78.0	79.0	57.0	78.8	64.2	68.0	22.0	23.2	129	128	27.0	13.2	< 1.45	< 1.45	
	Iron	1.16	1.34	0.0387 J	< 0.033	0.0537 J	0.0504 J	3.62	4.96	< 0.033	0.0375 J	0.093 J	0.0951 J	2.89	1.59	1.35	0.588	48.9	47.6	
	Magnesium	18.3	19.3	36.9	29.7	11.5	10.8	95.7	86.4	8.58	10.0	134	131	28.1	29.5	31.1	64.6	80.0	86.3	
	Manganese	0.601	0.56	0.0674	0.451	0.447	0.396	36.1	10.1	0.805	0.994	47.4	47.7	1.11	1.16	14.2	27.9	29.8	30.0	
	Nitrate	--	< 0.033	0.114	0.0665 J	--	< 0.165	--	< 0.033	--	1.87	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	
	Potassium	4.96	4.97	2.92	3.61	2.67	2.95	13.5	13.2	2.47	2.46	11.8	11.5	9.82	12.4	5.52	6.19	8.25	8.64	
Sodium	19.2	20.7	23.6	26.9	12.7	12.5	53.6	47.7	11.3	12.1	47.2	47.9	39.8	47.7	19.0	23.2	34.3	36.2		
Sulfide	--	< 0.033	< 0.033	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033		

Notes:  
 -- = Parameter was not analyzed  
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).  
 H = Indicates the analytical holding time was exceeded for the parameter.  
 J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).  
 TDS = total dissolved solids  
 U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)  
 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).  
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.  
 (3) The pH value presented was recorded at the time of sample collection in the field.

**Table 8**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:	PZ-591	PZ-591	PZ-601	PZ-601	PZ-611	PZ-611	PZ-621	PZ-621	PZ-631	PZ-631	PZ-641	PZ-641	PZ-641	PZ-641	PZ-651	PZ-651
Sample Date:	8/25/2022	1/26/2023	8/24/2022	1/26/2023	8/24/2022	1/26/2023	8/25/2022	1/30/2023	8/25/2022	1/30/2023	10/12/2022	11/7/2022	1/30/2023	10/11/2022	1/26/2023	
Parameter <sup>(1,2,3)</sup>																
<b>APPENDIX III</b>	Boron	0.055	0.0543	0.293	0.288	0.277	0.353	0.473	0.561	0.672	0.82	0.0152	--	0.015	0.0299	0.0322
	Calcium	267	278	281	284	214	214	104	124	45.1	49.8	320	--	372	230	235
	Chloride	53.0	41.4	26.7	28.3	19.2	17.0	9.97	9.85	6.15	7.18	55.3	--	40.7	48.7	26.5
	Fluoride	1.8	2.83	1.32	1.66	0.103	0.184	< 0.033	0.161	0.235	0.23	0.0781 J	--	0.0767 J	1.51	1.08
	pH	3.72	3.78	4.55	4.6	5.14	5.16	5.50	5.38	5.65	5.66	5.53	5.59	5.33	4.16	4.06
	Sulfate	2,900	4,000	1,770	1,970	1,800	1,490	571	647	234	280	2,440	--	2,800	2,520	3,160
	TDS	4,370	4,330	2,830	2,880	2,400	2,280	918	1,020	419	448	3,780	--	4,260	3,790	3,770
<b>APPENDIX IV</b>	Antimony	< 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
	Arsenic	0.0221	0.0237	0.00358 J	0.00204 J	0.00295 J	0.00225 J	< 0.002	< 0.002	< 0.002	< 0.002	0.00896	--	0.0103	0.0201	0.00926
	Barium	0.0121 J	0.0132 J	0.0226	0.0218	0.0133	0.0125	0.0259	0.023	0.023	0.022	0.0543	--	0.0254	0.026	0.0103
	Beryllium	0.1	0.115	0.0703	0.0782	0.00198	0.00164	0.000219 J	0.000293 J	< 0.0002	< 0.0002	0.0006	--	0.00116	0.0159	0.0179
	Cadmium	0.00536	0.00531	0.017	0.0152	0.000859 J	0.000517 J	0.000618 J	0.00107	< 0.0003	< 0.0003	< 0.0003	--	0.00126	0.000606 J	0.00119
	Chromium	0.00324 J	0.00311 J	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	--	< 0.003	0.00405 J	0.00352 J
	Cobalt	1.46	1.86	3.57	3.64	0.562	0.604	0.37	0.425	0.0232	0.028	9.05	8.97	11.0	0.481	0.405
	Lead	< 0.0025	< 0.0025	< 0.0005	< 0.0005	0.00113 J	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	--	< 0.0005	0.00132 J	0.00133 J
	Lithium	0.164	0.20	0.101	0.114	0.00913 J	0.0123	0.00617 J	0.00661 J	0.00509 J	0.0066 J	0.0181	--	0.0187	0.102	0.0791
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	--	< 0.000067	0.000088 J	< 0.000067
	Molybdenum	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000286 J	0.000247 J	0.000741 J	0.000803 J	0.000432 J	--	0.000201 J	< 0.0002	< 0.0002
	Comb. Radium 226/228	1.02 U	1.33 U	3.50	5.31	2.91	3.20	1.88 U	1.33 U	1.52 U	6.03	2.14	--	3.50	0.451 U	2.18 U
	Selenium	0.113	0.104	0.00417 J	0.0031 J	0.0051	0.00321 J	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.0171	--	0.0292	0.0377	0.0212
Thallium	< 0.003	< 0.003	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	--	< 0.0006	0.00139 J	0.000773 J	
<b>GEOCHEM</b>	Alkalinity (Bicarbonate as CaCO3)	< 1.45	< 1.45	2.0 J	6.0	16.8	16.0	19.2	17.0	32.8	26.4	48.0	--	37.4	< 1.45	< 1.45
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	< 1.45	--	< 1.45	< 1.45	< 1.45
	Alkalinity (total) as CaCO3	< 1.45	< 1.45	2.0 J	6.0	16.8	16.0	19.2	17.0	32.8	26.4	48.0	--	37.4	< 1.45	< 1.45
	Iron	448	446	0.533	0.663	0.532	0.651	1.03	0.516	2.04	0.991	1.98	--	2.85	445	320
	Magnesium	180	193	187	190	165	170	54.2	68.9	30.1	38.2	254	--	288	185	217
	Manganese	74.7	91.8	179	188	108	111	26.9	32.6	5.46	6.47	399	--	388	37.1	48.1
	Nitrate	--	< 0.33	--	0.512	--	< 0.033	--	< 0.033	--	< 0.033	--	--	1.01	--	< 0.165
	Potassium	16.4	18.6	14.7	14.5	6.34	7.32	9.67	10.2	7.94	7.95	14.6	--	14.5	14.1	11.3
	Sodium	92.0	98.6	62.7	62.3	58.8	59.6	25.6	27.8	16.4	18.0	61.7	--	68.5	81.3	73.0
Sulfide	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	< 0.033	--	--	< 0.033	--	< 0.033	

Notes:  
 -- = Parameter was not analyzed  
 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).  
 H = Indicates the analytical holding time was exceeded for the parameter.  
 J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).  
 TDS = total dissolved solids  
 U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)  
 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).  
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.  
 (3) The pH value presented was recorded at the time of sample collection in the field.

**Table 8**  
Summary of Groundwater Analytical Data  
Plant Branch AP-BCD, Putnam County, Georgia

Well ID:		PZ-661	PZ-661	PZ-68D	PZ-691	PZ-691	PZ-711	PZ-711	PZ-721	PZ-721	PZ-731	PZ-731	PZ-741	PZ-751	IW-B-3	IW-B-4	IW-B-5
Sample Date:		10/11/2022	1/30/2023	2/1/2023	2/1/2023	3/16/2023	5/1/2023	5/18/2023	5/22/2023	5/31/2023	5/22/2023	6/1/2023	6/6/2023	7/5/2023	6/5/2023	6/5/2023	6/5/2023
Parameter <sup>(1,2,3)</sup>																	
APPENDIX III	Boron	0.115	0.128	0.255	1.29	1.36	1.10	1.18	1.13	1.57	1.62	--	1.24	1.29	1.28	1.05	0.366
	Calcium	200	217	86.1	69.5	64.8	64.3	--	--	--	66.4	--	70.1	48.7	166	95.2	36.8
	Chloride	10.8	10.2	12.7	5.8	5.71	7.08	--	--	--		7.17	8.22	7.18	29.6	19.3	0.693
	Fluoride	0.0601 J	0.0574 J	0.166	0.0963 J	0.209	0.175	--	--	--		0.158	0.0891 J	0.157	0.129	0.112	0.113
	pH	5.81	5.64	7.28	6.18	5.92	6.41	--	5.81	5.82	5.64	5.49	5.83	5.68	8.4	5.79	5.81
	Sulfate	1,770	2,060	258	275	274	262	--	--	--		291	304	267	636	284	62.1
	TDS	2,800	2,890	525	441	444	446	--	--	--		505	523	487	826	593	232
APPENDIX IV	Antimony	< 0.001	< 0.001	0.00176 J	< 0.001	< 0.001	< 0.00100	--	--	--	< 0.00100	--	< 0.00100	--	--	--	--
	Arsenic	0.00489 J	0.00565	0.0058	0.00349 J	< 0.002	< 0.00200	--	--	--	< 0.00200	--	< 0.00200	--	--	--	--
	Barium	0.0597	0.0284	0.145	0.0253	0.021	0.0921	--	--	--	0.0256	--	0.0586	--	--	--	--
	Beryllium	< 0.0002	0.000318 J	< 0.0002	< 0.0002	< 0.0002	< 0.000200	--	--	--	< 0.000200	--	< 0.000200	--	--	--	--
	Cadmium	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.000300	--	--	--	< 0.000300	--	< 0.000300	--	--	--	--
	Chromium	< 0.003	< 0.003	< 0.003	0.00338 J	0.00425 J	< 0.00300	--	--	--	< 0.00300	--	< 0.00300	--	--	--	--
	Cobalt	0.364	0.345	0.000825 J	0.000668 J	< 0.0003	0.00285	--	--	--	0.00131	--	0.00258	--	< 0.0003	0.00586	0.000852 J
	Lead	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000526 J	--	--	--	< 0.000500	--	< 0.000500	--	--	--	--
	Lithium	0.0193	0.0131	0.00899 J	0.00392 J	0.00362 J	< 0.00300	--	--	--	0.0246	--	0.00704 J	--	--	--	--
	Mercury	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.000067	< 0.0000670	--	--	--	< 0.0000670	--	< 0.0000670 H	--	--	--	--
	Molybdenum	0.000918 J	0.000675 J	0.0111	< 0.0002	< 0.0002	0.000948 J	--	--	--	< 0.000200	--	0.00276	--	--	--	--
	Comb. Radium 226/228	1.36 U	1.99	4.16	0.356 U	0.676 U	3.66	--	--	--	--	1.80	7.80	--	--	--	--
	Selenium	0.00393 J	0.00817	< 0.0015	0.196	0.148	0.0539	0.0539	0.0938	0.0977	< 0.00150	--	0.0262	0.0732	--	--	--
Thallium	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.000600	--	--	--	< 0.000600	--	< 0.000600	--	--	--	--	
GEOCHEM	Alkalinity (Bicarbonate as CaCO3)	68.0	62.4	117	25.6	--	53.4	--	--	--	--	30.4	43.4	--	146	117	96.1
	Alkalinity (Carbonate as CaCO3)	< 1.45	< 1.45	< 1.45	< 1.45	--	< 0.725	--	--	--	--	< 0.725	< 0.725	--	2.2	< 0.725	< 0.725
	Alkalinity (total) as CaCO3	68.0	62.4	117	25.6	--	53.4	--	--	--	--	30.4	43.4	--	148	117	96.1
	Iron	25	17.8	0.405	0.438	--	0.0557 J	--	--	--	0.219	--	1.38	--	0.123	2.23	21.1
	Magnesium	285	303	21.8	29.4	--	27.7	--	--	--	29.8	--	37.9	--	34.8	24.6	5.14
	Manganese	107	109	0.809	0.0548	--	0.424	--	--	--	0.227	--	0.602	--	0.0701	0.821	0.751
	Nitrate	--	0.0461 J	< 0.033	0.144	--	< 0.0330	--	--	--	--	0.518	0.793	--	< 0.033	1.16	< 0.066
	Potassium	11.0	10.8	7.56	2.38	--	8.07	--	--	--	6.02	--	5.65	--	14.9	13.8	11.6
	Sodium	55.6	62.9	49.7	28.1	--	27.1	--	--	--	30.7	--	28.8	--	50	40.9	2.97
Sulfide	--	< 0.033	< 0.033	< 0.033	--	< 0.0330	--	--	--	--	< 0.0330	< 0.0330	--	< 0.033	< 0.033	< 0.033	

Notes:  
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 < = Indicates the parameter was not detected above the analytical method detection limit (MDL).  
 H = Indicates the analytical holding time was exceeded for the parameter.  
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 (1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).  
 (2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540-2011, and combined radium 226/228 by EPA Methods 9315/9320.  
 (3) The pH value presented was recorded at the time of sample collection in the field.



**Table 9**  
 Summay of Selenium Speciation Analysis  
 Plant Branch AP-BCD, Putnam County, Georgia

<b>Location ID</b>	<b>BRGWC-32S</b>	<b>PZ-691</b>	<b>IW-D-2</b>
<b>Sample Date</b>	5/30/2023	5/31/2023	5/30/2023
<b>Parameter</b>			
<b>DMSeO</b>	< 0.010	0.014 J	< 0.100
<b>MeSe(IV)</b>	< 0.010	< 0.010	< 0.100
<b>Se(IV)</b>	< 0.020	0.052 J	< 0.200
<b>Se(VI)</b>	239	172	< 0.100
<b>SeCN</b>	< 0.010	< 0.010	< 0.100
<b>SeMet</b>	< 0.010	< 0.010	< 0.100
<b>SeSO3</b>	< 0.010	< 0.010	< 0.100
<b>Unk Se Sp</b>	< 0.020	< 0.020	< 0.200

Notes:

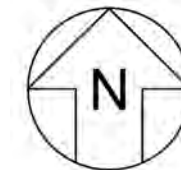
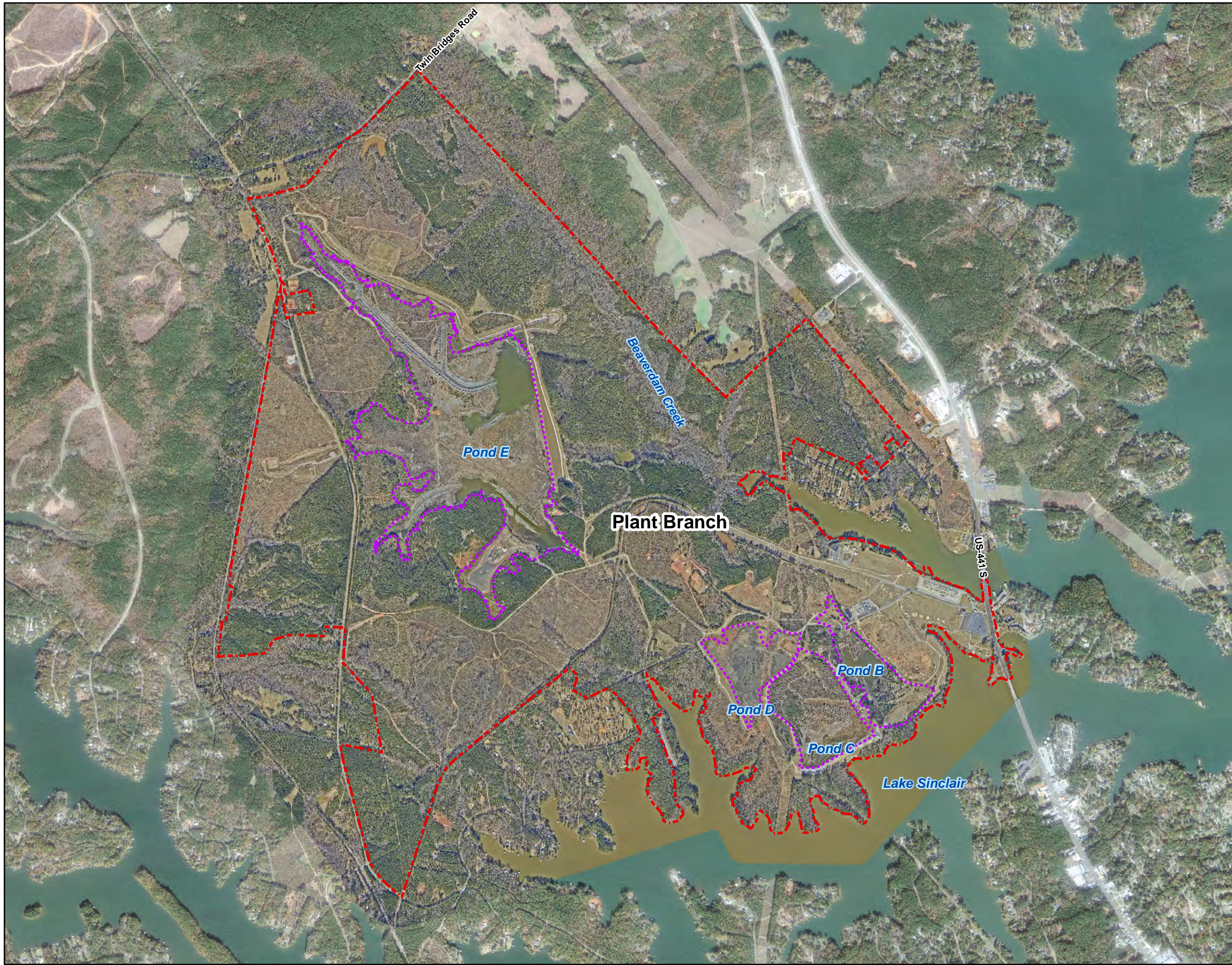
< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

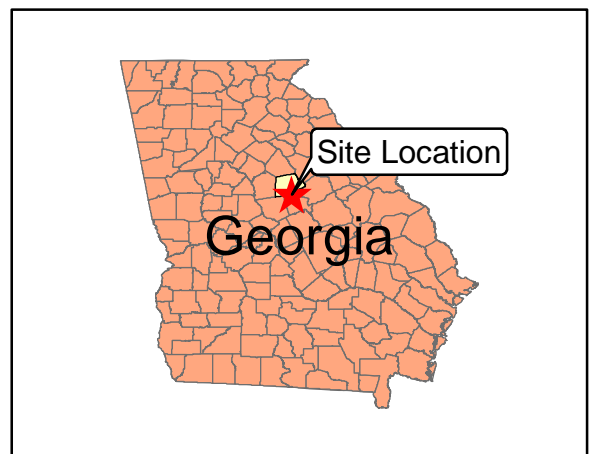
(1) Parameters are reported in units of microgram per liter (µg/L).

# FIGURES

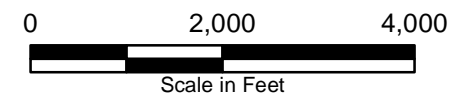




**LEGEND**  
 - - - Plant Branch Property Boundary  
 - - - Approximate Ash Pond Boundary



Notes:  
 1. Coordinate System: NAD 1983 State Plane Georgia West\_FIPS (U.S. Feet).  
 2. Property Boundary Provided by Southern Company Services.  
 3. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**SITE LOCATION MAP**

GEORGIA POWER COMPANY  
 PLANT BRANCH AP-BCD  
 PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

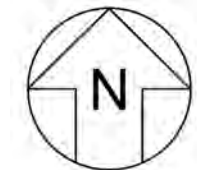
Prepared By: Geosyntec consultants

KENNESAW, GA

JULY 2023

**FIGURE**  
**1**

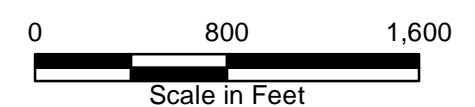




- LEGEND**
- + Detection Monitoring Well
  - + Horizontal Assessment Monitoring Well
  - + Vertical Assessment Monitoring Well
  - + Piezometer
  - + Angled Well Screen
  - + Surface Water
  - + Detection Monitoring Well (Abandoned)
  - + Piezometer (Abandoned)
  - Plant Branch Property Boundary
  - Approximate Ash Pond Boundary

**Notes:**

1. Property Boundary Provided by Southern Company Services.
2. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**MONITORING WELL NETWORK AND SURFACE WATER LOCATION MAP**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

Prepared For: Georgia Power

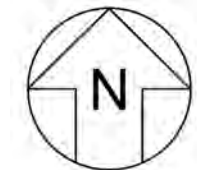
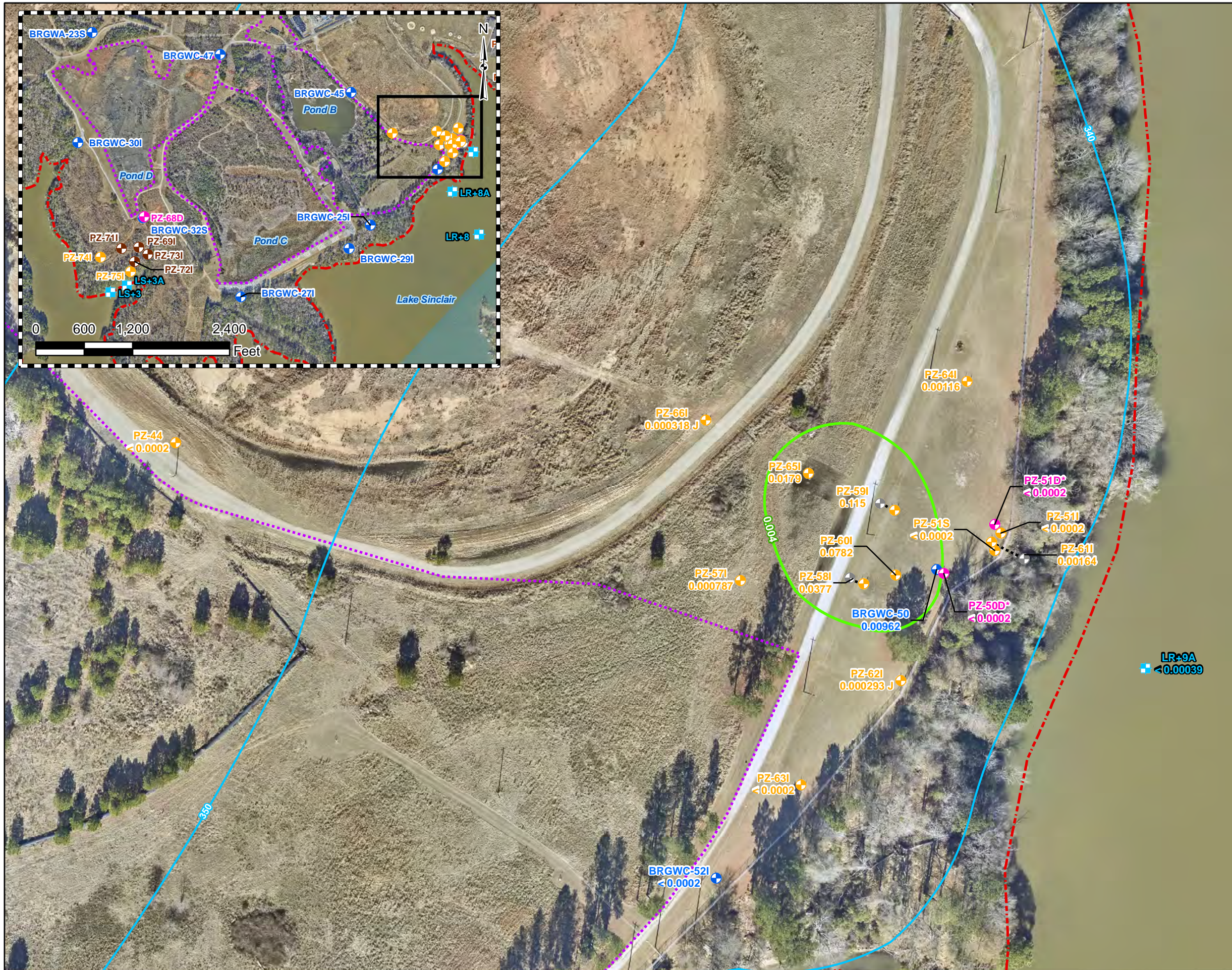
Prepared By: Geosyntec  
consultants

KENNESAW, GA

JULY 2023

**FIGURE**  
**2**





- LEGEND**
- ⊕ Detection Monitoring Well
  - ⊕ Horizontal Assessment Monitoring Well
  - ⊕ Vertical Assessment Monitoring Well
  - ⊕ Angled Well Screen
  - ⊕ Surface Water
  - Groundwater Elevation Iso-Contour (January 2023)
  - Beryllium GWPS Iso-Concentration Contour (mg/L)
  - - - Inferred Beryllium GWPS Iso-Concentration Contour (mg/L)
  - - - Plant Branch Property Boundary
  - - - Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the January/February 2023 semi-annual monitoring event.
  2. Concentrations are reported in milligrams per liter (mg/L).
  3. Water level elevation recorded on January 23, 2023.
  4. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
  5. The Groundwater Protection Standards (GWPS) for beryllium is 0.004 mg/L.
  6. J - Estimated value.
  7. \* - Data reported was not used to generate the iso-concentration contour.
  8. Property Boundary Provided by Southern Company Services.
  9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.

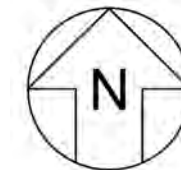


**ISO-CONCENTRATION MAP,  
BERYLLIUM -  
WINTER 2023**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

Prepared For:  Georgia Power	<b>FIGURE 3</b>
Prepared By:  Geosyntec consultants	
KENNESAW, GA	JULY 2023





- LEGEND**
- ⊕ Detection Monitoring Well
  - ⊕ Horizontal Assessment Monitoring Well
  - ⊕ Vertical Assessment Monitoring Well
  - ⊕ Angled Well Screen
  - ⊕ Surface Water
  - Groundwater Elevation Iso-Contour (January 2023)
  - Cadmium GWPS Iso-Concentration Contour (mg/L)
  - - - Plant Branch Property Boundary
  - ⋯ Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the January/February 2023 semi-annual monitoring event.
  2. Concentrations are reported in milligrams per liter (mg/L).
  3. Water level elevation recorded on January 23, 2023.
  4. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
  5. The Groundwater Protection Standards (GWPS) for cadmium is 0.005 mg/L.
  6. J - Estimated value.
  7. NS - Not Sampled
  8. \* - Data reported was not used to generate the iso-concentration contour.
  9. Property Boundary Provided by Southern Company Services.
  10. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**ISO-CONCENTRATION MAP,  
CADMIUM -  
WINTER 2023**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

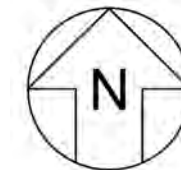
Prepared For: Georgia Power

Prepared By: Geosyntec  
consultants

KENNESAW, GA      JULY 2023

**FIGURE  
4**





- LEGEND**
- ⊕ Detection Monitoring Well
  - ⊕ Horizontal Assessment Monitoring Well
  - ⊕ Vertical Assessment Monitoring Well
  - ⊕ Angled Well Screen
  - ⊕ Surface Water
  - Groundwater Elevation Iso-Contour (January 2023)
  - Cobalt GWPS Iso-Concentration Contour (mg/L)
  - - - Inferred Cobalt GWPS Iso-Concentration Contour (mg/L)
  - - - Plant Branch Property Boundary
  - - - Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the January/February 2023 semi-annual monitoring event.
  2. Concentrations are reported in milligrams per liter (mg/L).
  3. Water level elevation recorded on January 23, 2023.
  4. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
  5. The Groundwater Protection Standards (GWPS) for cobalt is 0.014 mg/L.
  6. NS - Not Sampled
  7. \* - Data reported was not used to generate the iso-concentration contour.
  8. Property Boundary Provided by Southern Company Services.
  9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.

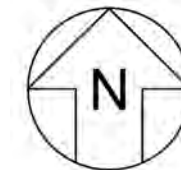
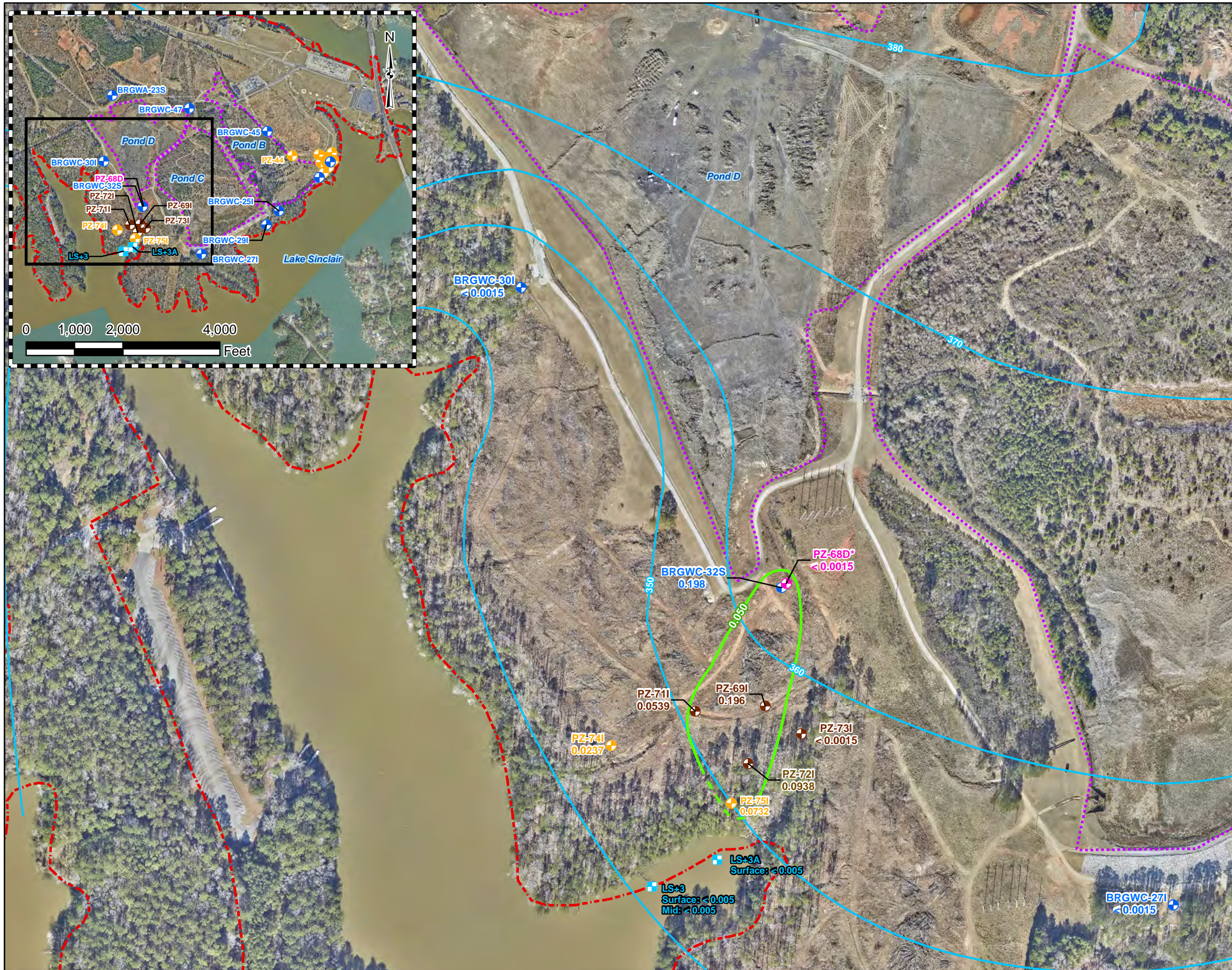


**ISO-CONCENTRATION MAP,  
COBALT -  
WINTER 2023**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

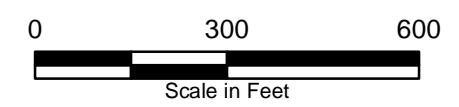
Prepared For:  Georgia Power	<b>FIGURE 5</b>
Prepared By:  Geosyntec consultants	
KENNESAW, GA	JULY 2023





- LEGEND**
- ⊕ Detection Monitoring Well
  - ⊕ Horizontal Assessment Monitoring Well
  - ⊕ Vertical Assessment Monitoring Well
  - ⊕ Piezometer
  - ⊕ Surface Water
  - Groundwater Elevation Iso-Contour (January 2023)
  - Selenium GWPS Iso-Concentration Contour (mg/L)
  - - - Inferred Selenium GWPS Iso-Concentration Contour (mg/L)
  - - - Plant Branch Property Boundary
  - ⋯ Approximate Ash Pond Boundary

- Notes:**
1. Concentration data from groundwater samples collected during the January/February 2023 semi-annual monitoring event, subsequent May/June 2023 sampling event for PZ-711, PZ-721, PZ-731, and PZ-741, and a July 2023 sampling event for PZ-751, LS+3 and LS+3A.
  2. Concentrations are reported in milligrams per liter (mg/L).
  3. Water level elevation recorded on January 23, 2023.
  4. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
  5. The Groundwater Protection Standards (GWPS) for selenium is 0.050 mg/L.
  6. NS - Not Sampled
  7. \* - Data reported was not used to generate the iso-concentration contour.
  8. Property Boundary Provided by Southern Company Services.
  9. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.

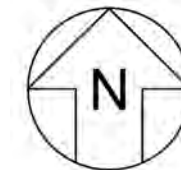





**ISO-CONCENTRATION MAP,  
SELENIUM -  
WINTER 2023**

GEORGIA POWER COMPANY  
PLANT BRANCH AP-BCD  
PUTNAM COUNTY, GEORGIA

Prepared For:  Georgia Power	<b>FIGURE 6</b>
Prepared By:  Geosyntec consultants	
KENNESAW, GA	JULY 2023





- LEGEND**
-  Interstitial Monitoring Well
  -  Plant Branch Property Boundary
  -  Approximate Ash Pond Boundary

- Notes:
1. Interstitial Monitoring Wells IW-B-3, IW-B-4, and IW-B-5 were installed May 2023.
  2. Property Boundary Provided by Southern Company Services.
  3. Aerial: Google Earth Imagery, November 2019 and Georgia Power Company, January 2023.



**AP-B INTERSTITIAL MONITORING WELL LOCATION MAP**

GEORGIA POWER COMPANY  
 PLANT BRANCH AP-BCD  
 PUTNAM COUNTY, GEORGIA

Prepared For:  Georgia Power

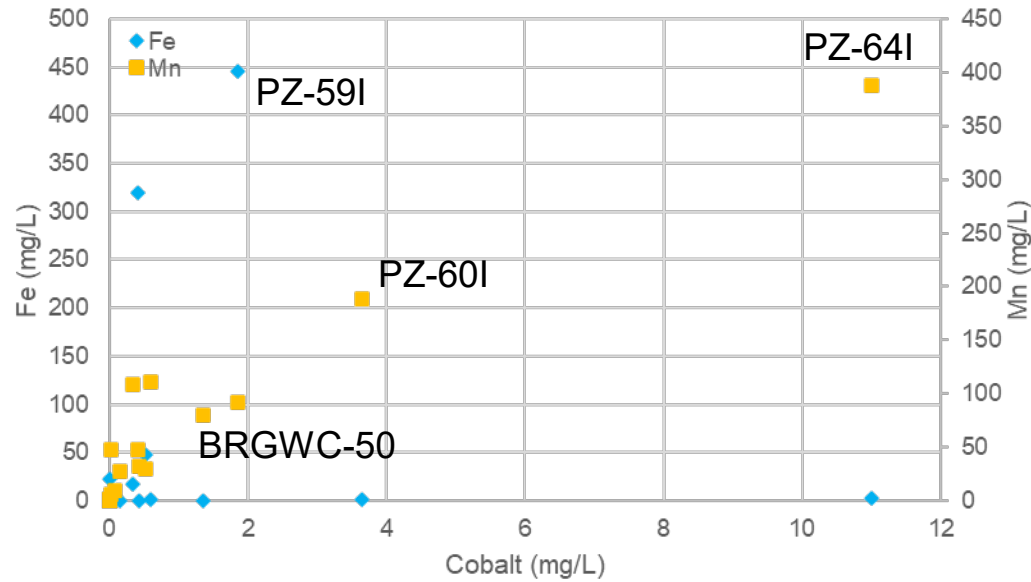
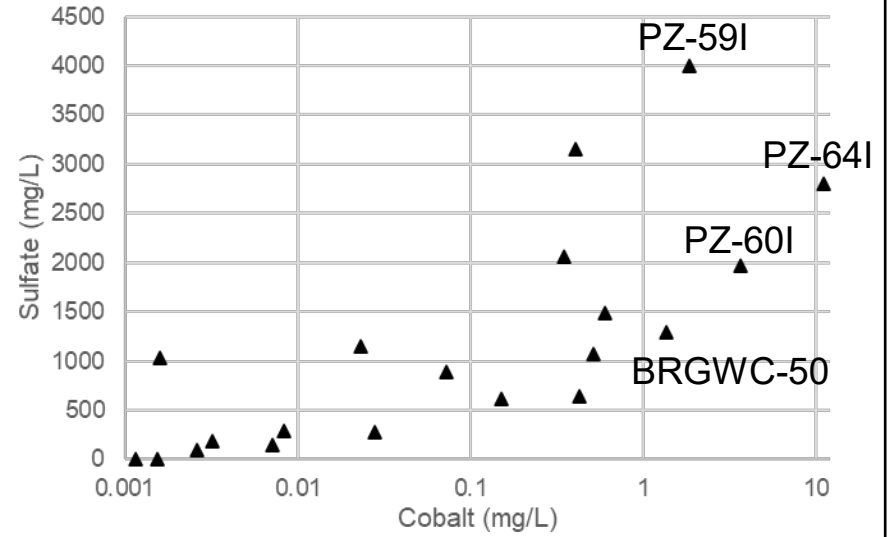
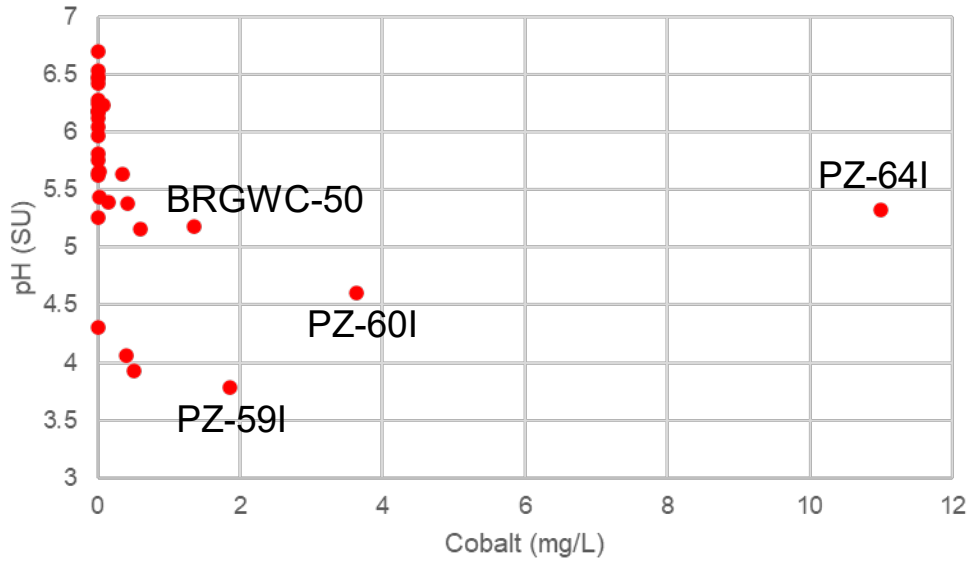
Prepared By:  Geosyntec  
 consultants

KENNESAW, GA

JULY 2023

**FIGURE**  
 7





**Notes:**

1. Groundwater samples collected during the fall semi-annual sampling event between 1/24/2023 and 3/16/2023.
2. Fe = iron; Mn = manganese
3. mg/L = milligrams per liter

**Cobalt Correlations: pH, Sulfate, Iron and Manganese**

Georgia Power Company  
Plant Branch AP-BCD  
Putnam County, Georgia

Prepared For:



Prepared By:



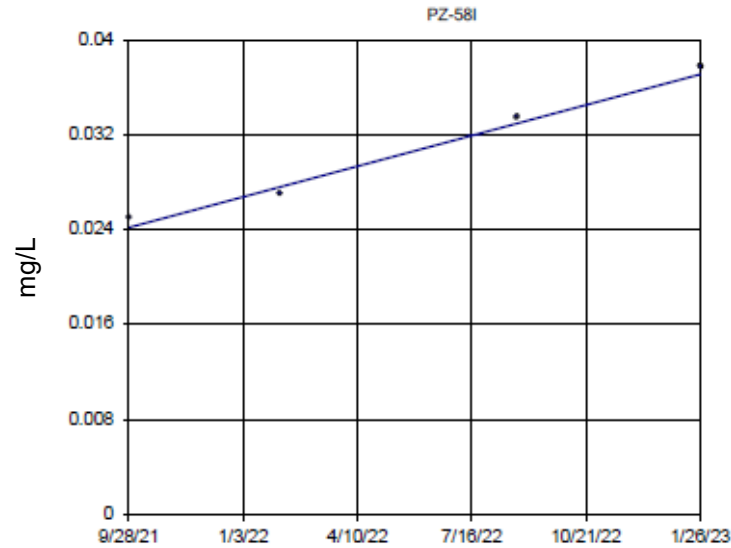
Kennesaw, GA

July 2023

**Figure**

**8**

# Beryllium

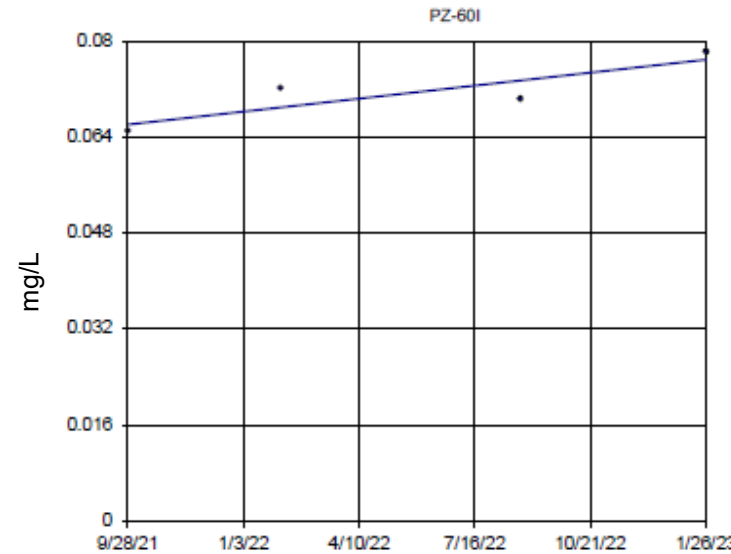


n = 4

Slope = 0.009724  
units per year.

Mann-Kendall  
statistic = 6  
critical = 8

Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).  
With n = 4, no data  
set will result in  
a significant Mann-  
Kendall statistic.



n = 4

Slope = 0.008136  
units per year.

Mann-Kendall  
statistic = 4  
critical = 8

Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).  
With n = 4, no data  
set will result in  
a significant Mann-  
Kendall statistic.

## Notes:

1. Groundwater trends completed by Groundwater Stats Consulting using groundwater data collected for the full monitoring period through the January 2023 semiannual sampling event.
2. Trends shown are in wells where statistically significant levels (SSLs) have been identified.
3. mg/L = milligrams per liter
4. n = 4 is insufficient data for statistical evaluation of the concentration trend.

## Beryllium Concentration Trends

Georgia Power Company  
Plant Branch AP-BCD  
Putnam County, Georgia

Prepared For:



Prepared By:



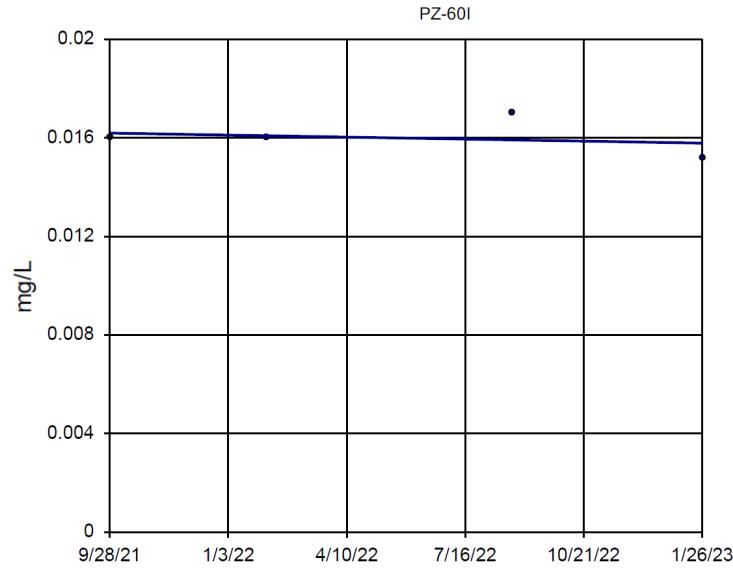
Figure

9a

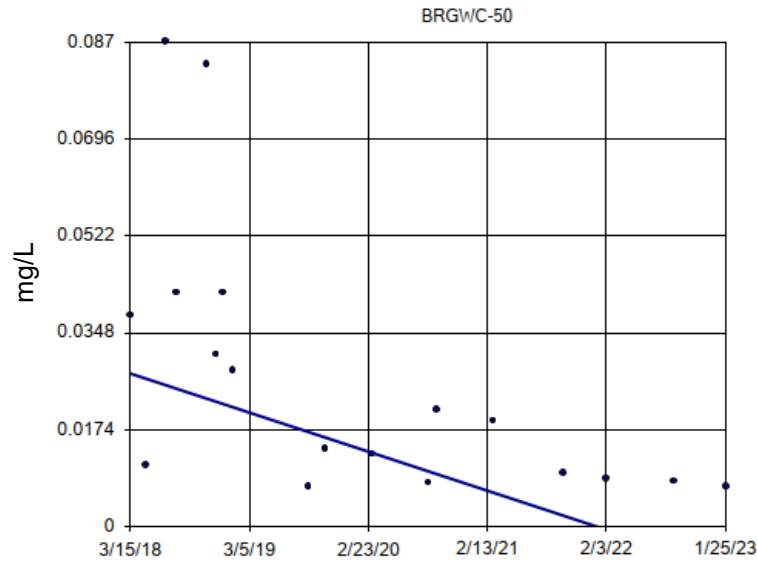
Kennesaw, GA

July 2023

# Cadmium



n = 4  
 Slope = -0.000301 units per year.  
 Mann-Kendall statistic = -1  
 critical = -8  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).  
 With n = 4, no data set will result in a significant Mann-Kendall statistic.



n = 18  
 Slope = -0.007206 units per year.  
 Mann-Kendall statistic = -84  
 critical = -68  
 Decreasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

## Notes:

1. Groundwater trends completed by Groundwater Stats Consulting using groundwater data collected for the full monitoring period through the January 2023 semiannual sampling event.
2. Trends shown are in wells where statistically significant levels (SSLs) have been identified.
3. mg/L = milligrams per liter
4. n = 4 is insufficient data for statistical evaluation of the concentration trend.

## Cadmium Concentration Trends

Georgia Power Company  
 Plant Branch AP-BCD  
 Putnam County, Georgia

Prepared For:



Prepared By:



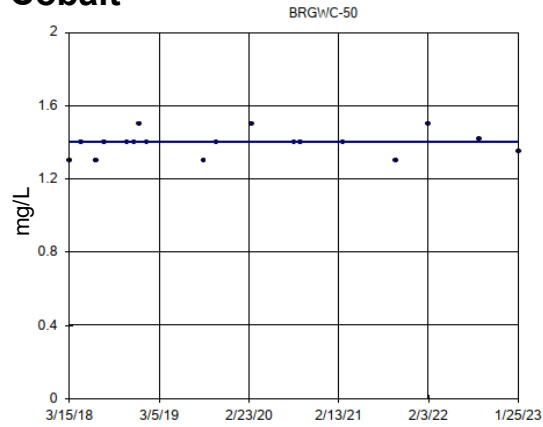
Figure

9b

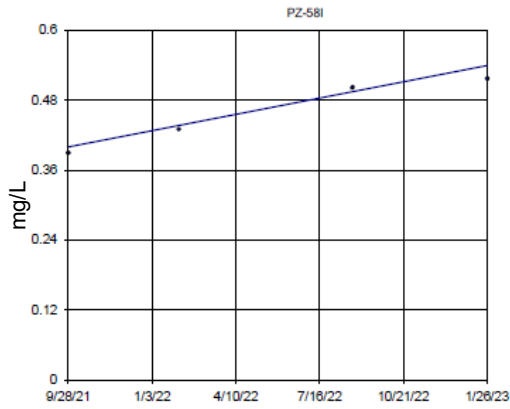
Kennesaw, GA

July 2023

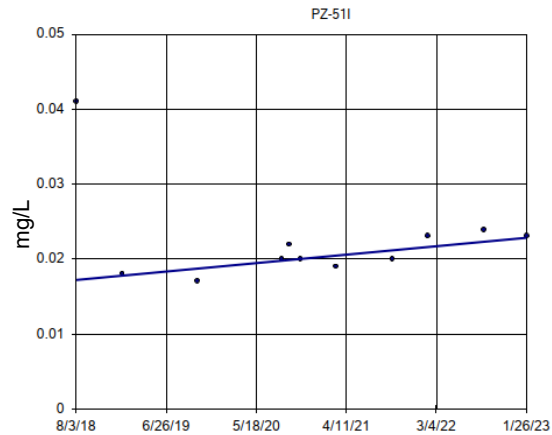
# Cobalt



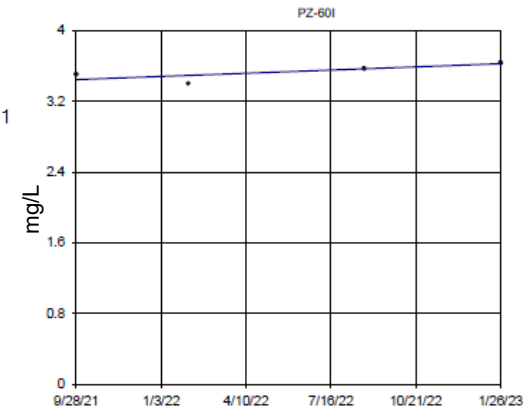
n = 18  
Slope = 0 units per year.  
Mann-Kendall statistic = 24  
critical = 68  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).



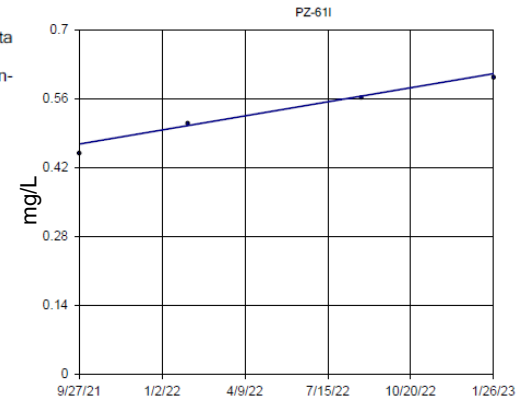
n = 4  
Slope = 0.1052 units per year.  
Mann-Kendall statistic = 6  
critical = 8  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).  
With n = 4, no data set will result in a significant Mann-Kendall statistic.



n = 11  
Slope = 0.001261 units per year.  
Mann-Kendall statistic = 18  
critical = 34  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).



n = 4  
Slope = 0.1351 units per year.  
Mann-Kendall statistic = 4  
critical = 8  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).  
With n = 4, no data set will result in a significant Mann-Kendall statistic.



n = 4  
Slope = 0.1073 units per year.  
Mann-Kendall statistic = 6  
critical = 8  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).  
With n = 4, no data set will result in a significant Mann-Kendall statistic.

## Notes:

1. Groundwater trends completed by Groundwater Stats Consulting using groundwater data collected for the full monitoring period through the January 2023 semiannual sampling event.
2. Trends shown are in wells where statistically significant levels (SSLs) have been identified.
3. mg/L = milligrams per liter
4. n = 4 is insufficient data for statistical evaluation of the concentration trend.

## Cobalt Concentration Trends

Georgia Power Company  
Plant Branch AP-BCD  
Putnam County, Georgia

Prepared For:



Prepared By:



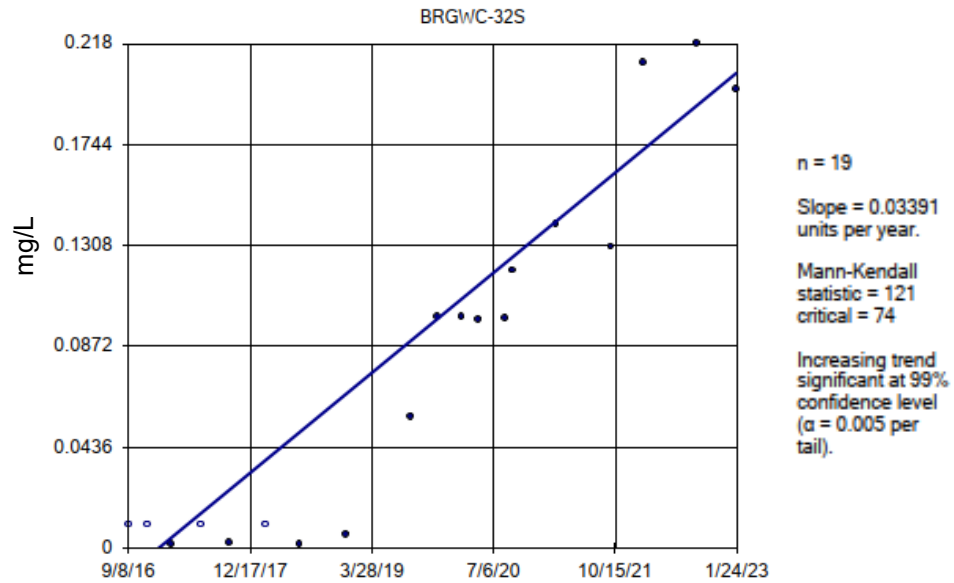
Figure

9c

Kennesaw, GA

July 2023

# Selenium



**Notes:**

1. Groundwater trends completed by Groundwater Stats Consulting using groundwater data collected for the full monitoring period through the January 2023 semiannual sampling event.
2. Trends shown are in wells where statistically significant levels (SSLs) have been identified.
3. mg/L = milligrams per liter

## Selenium Concentration Trends

Georgia Power Company  
 Plant Branch AP-BCD  
 Putnam County, Georgia

Prepared For:



Prepared By:



**Figure**

**9d**

Kennesaw, GA

July 2023

# APPENDIX A

## Boring Logs

**BORING AND WELL LOG LEGEND**

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	Date & Time	Blow Counts	Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample
-----------	-------------	------------------------	-------------	-------------	-------------	---------------	------------------------------	-----------	------------



GR	EN	SS	ST	CO	DP
----	----	----	----	----	----

- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- COBBLES
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- PARTIALLY WEATHERED Rock (PWR)
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with clay (GW-GC)
- Poorly graded GRAVEL with clay (GP-GC)
- Well-graded SAND (SW)
- Poorly graded SAND (SP)
- Silty SAND (SM)
- Clayey SAND (SC)
- Well-graded SAND with silt (SW-SM)
- Poorly graded SAND with silt (SP-SM)
- Well-graded SAND with clay (SW-SC)
- Poorly graded SAND with clay (SP-SC)
- SILT (ML)
- Lean CLAY (CL)
- Organic SOIL (OL)
- Elastic SILT (MH)
- Fat CLAY (CH)
- Organic SOIL (OH)
- PEAT (PT)
- Volume Descriptors:  
Trace = <5%  
Few = 5-10%  
Little = 15-25%  
Some = 30-45%  
Mostly = >=50%
- Water Level During Drilling
- Water Level at End of Drilling/in Completed Well
- Cap
- Riser
- Screen
- Cement
- Bentonite Grout
- Bentonite Seal
- Filter Pack
- Backfill
- Grab
- Encore
- Split Spoon
- Shelby Tube
- Core Barrel
- Direct Push
- Lab Sample and ID

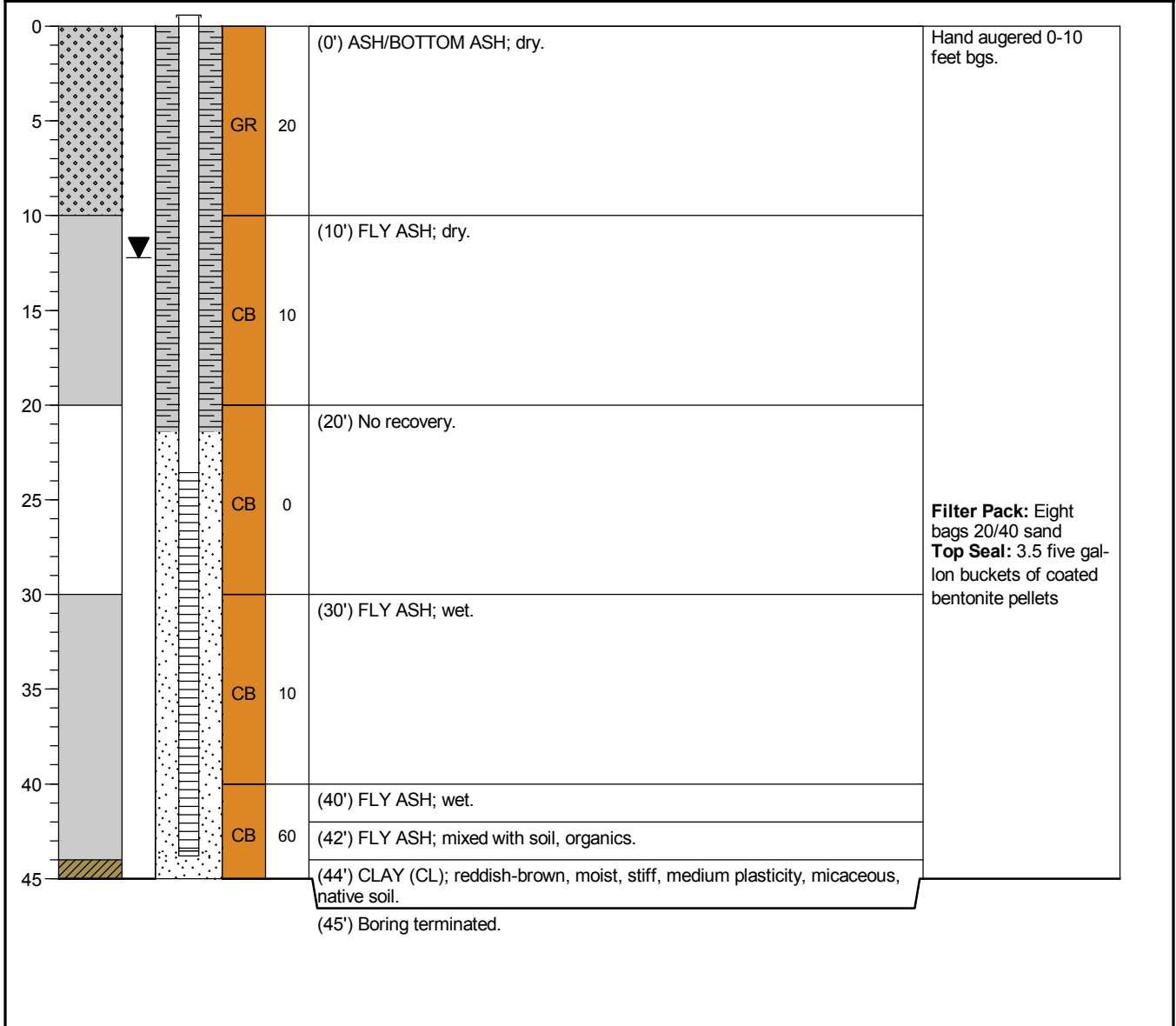
0.0	ID
-----	----

NOTES:



Drilling Start Date: <b>05/23/2023</b>	Boring Depth (ft): <b>45</b>	Well Depth (ft TOC): <b>43.8</b>
Drilling End Date: <b>05/23/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>12.23</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150C</b>	Ground Surface Elevation: <b>NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>B. Griffis</b>	Top of Casing Elevation: <b>377.72 NAV88</b>	Seal Material(s): <b>Bentonite</b>
Logged By: <b>D. Kegley</b>	North, East (Y,X): <b>1161612.24, 2561277.94</b>	Filter Pack: <b>20/40 Sand</b>

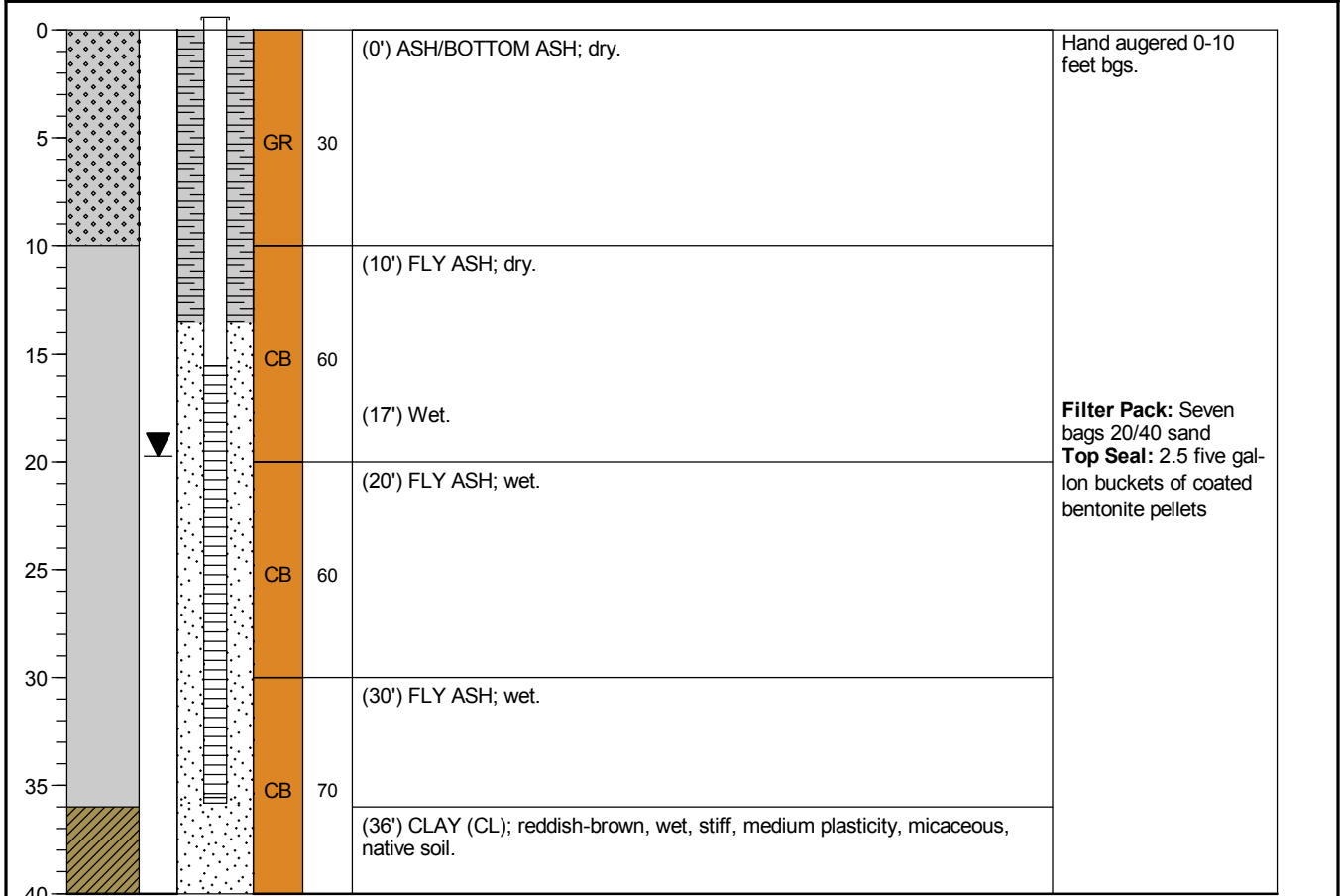
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
------------	-----------	-------------	-----------------	-------------	--------------	------------------------------	---------	----------------------



NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+3 feet stickup). Well depth measured from the top of casing (TOC).

Drilling Start Date: <b>05/23/2023</b>	Boring Depth (ft): <b>40</b>	Well Depth (ft TOC): <b>35.8</b>
Drilling End Date: <b>05/23/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>19.75</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150C</b>	Ground Surface Elevation: <b>NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>B. Griffis</b>	Top of Casing Elevation: <b>379.34 NAV88</b>	Seal Material(s): <b>Bentonite</b>
Logged By: <b>D. Kegley</b>	North, East (Y,X): <b>1161586.67, 2561485.1</b>	Filter Pack: <b>20/40 Sand</b>

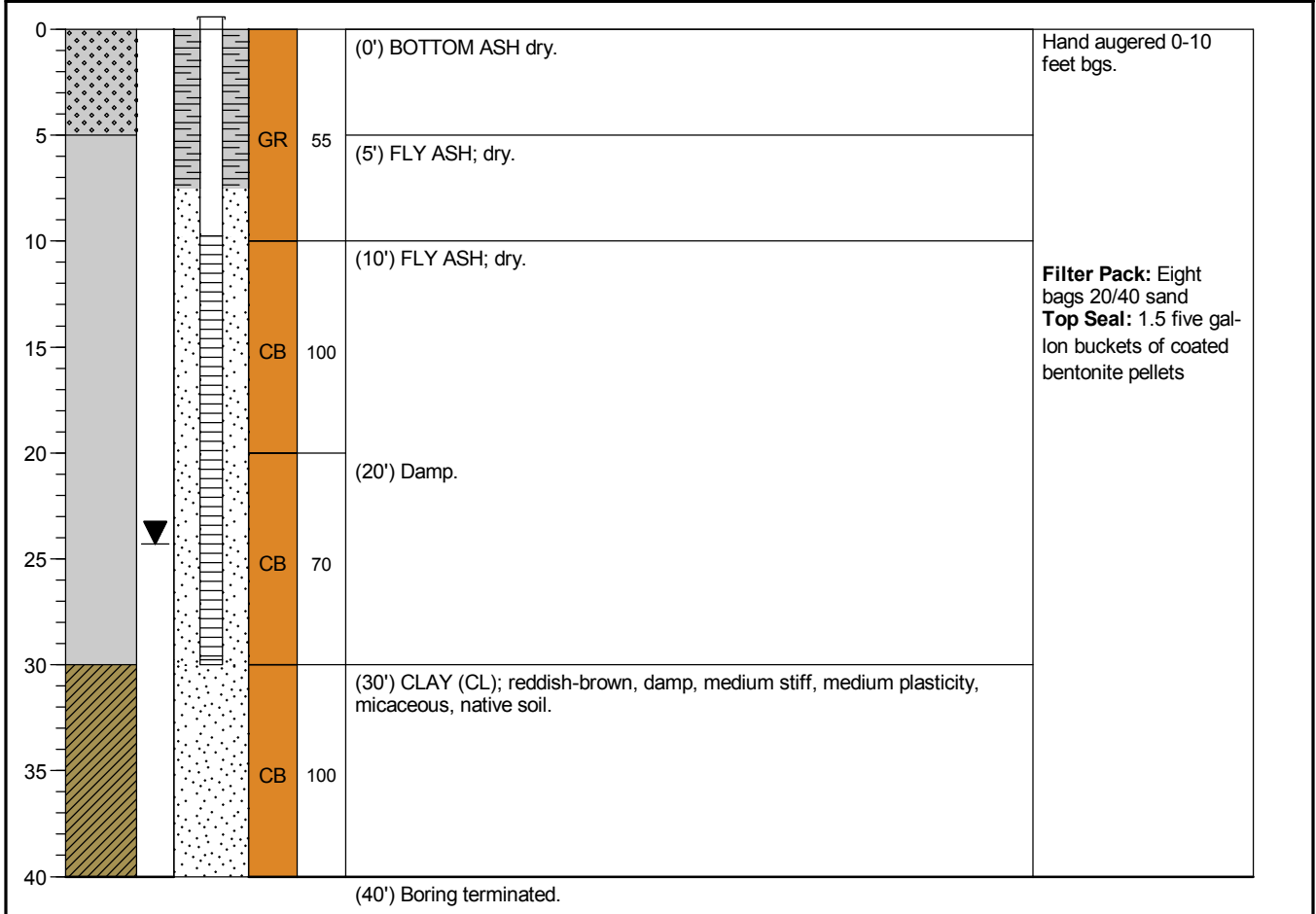
DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
------------	-----------	-------------	-----------------	-------------	--------------	------------------------------	---------	----------------------



NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+3 feet stickup). Well depth measured from the top of casing (TOC).

Drilling Start Date: <b>05/22/2023</b>	Boring Depth (ft): <b>40</b>	Well Depth (ft TOC): <b>30</b>
Drilling End Date: <b>05/22/2023</b>	Boring Diameter (in): <b>6</b>	Well Diameter (in): <b>2</b>
Drilling Company: <b>Cascade Drilling</b>	Sampling Method(s): <b>Core Barrel</b>	Screen Slot (in): <b>0.010</b>
Drilling Method: <b>Sonic 4x6</b>	DTW Post-Installation (ft): <b>24.3</b>	Riser Material: <b>Sch 40 PVC</b>
Drilling Equipment: <b>TSI-150C</b>	Ground Surface Elevation: <b>NAV88</b>	Screen Material: <b>Sch 40 PVC U-Pack</b>
Driller: <b>C. Tindel</b>	Top of Casing Elevation: <b>382.33 NAV88</b>	Seal Material(s): <b>Bentonite</b>
Logged By: <b>D. Kegley</b>	North, East (Y,X): <b>1161559.75, 2561669.23</b>	Filter Pack: <b>20/40 Sand</b>

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	Sample Type	Recovery (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	ELEVATION (ft NAV88)
------------	-----------	-------------	-----------------	-------------	--------------	------------------------------	---------	----------------------



NOTES: Boring cleared with hand auger from 0-10 feet bgs. Well (+3 feet stickup). Well depth measured from the top of casing (TOC).

# APPENDIX B

## Analytical Laboratory Reports

**SGS Canada Inc.**

P.O. Box 4300 - 185 Concession St.  
 Lakefield - Ontario - KOL 2H0  
 Phone: 705-652-2000 FAX: 705-652-6365

22-November-2022

**SiREM Laboratory**

Attn : Jacques Smith

180B Market Place Blvd  
 Knoxville, Tennessee  
 37922, USA

Phone: 865-291-4695  
 Fax:

**Date Rec. :** 12 October 2022  
**LR Report:** CA19107-OCT22  
**Reference:** Plant Branch  
 SIREMLABUS. 02. 10. 8151

**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

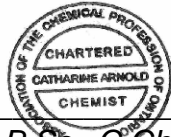
Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-64	6: PZ-65	7: PZ-66	8: PZ-68	9: SB-1	10: SB-2
Ag [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Al [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	98000	92000	91000	48000	74000	91000
As [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	1.0	0.7	1.1	1.0	0.6	0.9
Ba [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	1100	540	930	450	140	1000
Be [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	2	2	2	0.75	2	2
Bi [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.09	0.20	0.09	0.17	0.13	0.10
Ca [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	8100	25000	4300	15000	700	3900
Cd [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	0.13	0.12	0.08	0.15	0.02	0.05
Co [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	20	15	6	22	17	10
Cr [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	53	92	70	47	140	52
Cu [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	18	12	15	16	52	24
Fe [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	21000	46000	29000	49000	46000	21000
K [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	33000	19000	31000	15000	8600	31000
Li [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	13	13	13	14	17	11
Mg [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	5700	19000	5100	17000	8400	6000
Mn [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	660	790	430	840	650	460
Mo [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	0.4	0.4	3.2	0.7	0.3	0.5
Na [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	14000	13000	8700	4200	260	4100
Ni [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	16	64	21	34	29	14
P [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	150	190	200	1500	250	130
Pb [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	24	17	35	6	17	27
Sb [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Se [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Sn [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	< 6	< 6	< 6	< 6	< 6	< 6
Sr [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	270	180	160	120	35	190
Ti [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	2200	2900	3900	6500	3100	2200
Tl [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	0.56	0.43	0.61	0.42	0.94	0.57

**SGS Canada Inc.**

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 Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA19107-OCT22

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-64	6: PZ-65	7: PZ-66	8: PZ-68	9: SB-1	10: SB-2
U [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	1.97	3.07	5.94	1.74	2.57	2.71
V [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	45	110	67	100	90	39
Y [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	23.2	25.2	18.4	31.7	21.5	23.6
Zn [µg/g]	26-Oct-22	17:22	01-Nov-22	08:24	59	78	81	98	76	48

*Catharine Arnold*  
  
**Catharine Arnold, B.Sc., C.Chem**  
 Project Specialist,  
 Environment, Health & Safety

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22-November-2022

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 37922, USA

Phone: 865-291-4695  
 Fax:

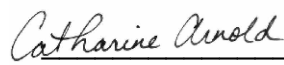

**Date Rec. :** 12 October 2022  
**LR Report:** CA19110-OCT22  
**Reference:** Plant Branch  
 SIREMLABUS.02.10.8151

**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: PZ-64	6: PZ-65	7: PZ-66	8: PZ-68	9: SB-1	10: SB-2
SiO2 [%]	19-Oct-22	19:03	24-Oct-22	09:51	66.0	56.2	67.7	57.3	62.7	68.1
Al2O3 [%]	19-Oct-22	19:03	24-Oct-22	09:51	17.9	17.0	16.2	17.2	17.6	16.5
Fe2O3 [%]	19-Oct-22	19:03	24-Oct-22	09:51	2.75	8.01	3.57	7.65	6.32	2.32
MgO [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.92	4.06	0.70	2.84	1.38	0.76
CaO [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.99	3.91	0.51	4.78	0.23	0.34
Na2O [%]	19-Oct-22	19:03	24-Oct-22	09:51	1.96	1.47	1.19	3.25	0.37	0.52
K2O [%]	19-Oct-22	19:03	24-Oct-22	09:51	3.90	2.60	3.94	1.69	2.61	4.98
TiO2 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.34	0.54	0.53	1.14	0.76	0.26
P2O5 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.04	0.06	0.05	0.35	0.08	0.02
MnO [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.08	0.13	0.05	0.13	0.07	0.03
Cr2O3 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.02	0.07	0.03	0.03	0.04	0.03
V2O5 [%]	19-Oct-22	19:03	24-Oct-22	09:51	0.01	0.03	< 0.01	0.03	0.02	< 0.01
LOI [%]	19-Oct-22	19:03	24-Oct-22	09:51	4.48	5.17	4.74	2.96	7.14	5.12
Sum [%]	19-Oct-22	19:03	24-Oct-22	09:51	99.4	99.3	99.2	99.4	99.3	99.0

  
  
**Catharine Arnold, B.Sc., C.Chem**  
**Project Specialist,**  
**Environment, Health & Safety**



## Quantitative X-Ray Diffraction by Rietveld Refinement

**Report Prepared for:** Environmental Services

**Project Number/ LIMS No.** Custom XRD/MI4533-OCT22

**Sample Receipt:** October 20, 2022

**Sample Analysis:** October 28, 2022

**Reporting Date:** December 21, 2022

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**Instrument:** BRUKER AXS D8 Advance Diffractometer

**Test Conditions:** Co radiation, 35 kV, 40 mA; Detector: LYNXEYE  
Regular Scanning: Step: 0.02°, Step time: 0.75s, 2θ range: 6-80°

**Interpretations :** PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.

**Detection Limit :** 0.5-2%. Strongly dependent on crystallinity.

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**Contents:**

- 1) Method Summary
- 2) Quantitative XRD Results
- 3) XRD Pattern(s)

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Kim Gibbs, H.B.Sc., P.Geol.  
Senior Mineralogist

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Huyun Zhou, Ph.D., P.Geol.  
Senior Mineralogist

**ACCREDITATION:** SGS Natural Resources Lakefield is accredited to the requirements of ISO/IEC 17025 for specific tests as listed on our scope of accreditation, including geochemical, mineralogical and trade mineral tests. To view a list of the accredited methods, please visit the following website and search SGS Canada Inc. - Minerals: <https://www.scc.ca/en/search/palcan>.





## Method Summary

The Rietveld Method of Mineral Identification by XRD (ME-LR-MIN-MET-MN-D05) method used by SGS Natural Resources is accredited to the requirements of ISO/IEC 17025.

### ***Mineral Identification and Interpretation:***

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

### ***Quantitative Rietveld Analysis:***

Quantitative Rietveld Analysis is performed by using Topas 4.2 (Bruker AXS), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

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**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

### Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	PZ-64	PZ-65	PZ-66	PZ-68	SB-1	SB-2
	OCT4533-1 (wt %)	OCT4533-2 (wt %)	OCT4533-3 (wt %)	OCT4533-4 (wt %)	OCT4533-5 (wt %)	OCT4533-6 (wt %)
Quartz	26.4	16.4	33.4	21.9	36.7	36.0
Plagioclase	21.2	17.0	13.1	35.7	4.6	9.6
Potassium-feldspar	16.5	10.6	16.7	3.1	14.1	16.0
Mica	16.1	17.2	19.1	26.5	20.5	22.9
Kaolinite	16.9	18.4	16.4	-	23.3	15.0
Gypsum	1.7	0.3	0.5	1.3	-	-
Magnetite	0.3	0.0	0.0	0.4	0.0	0.1
Diopside	1.0	0.1	0.6	1.8	0.6	0.5
Actinolite	-	20.1	-	4.3	-	-
Chlorite	-	-	-	3.9	-	-
Grossular	-	-	-	0.5	0.1	-
Ilmenite	-	-	-	0.7	0.1	-
TOTAL	100	100	100	100	100	100

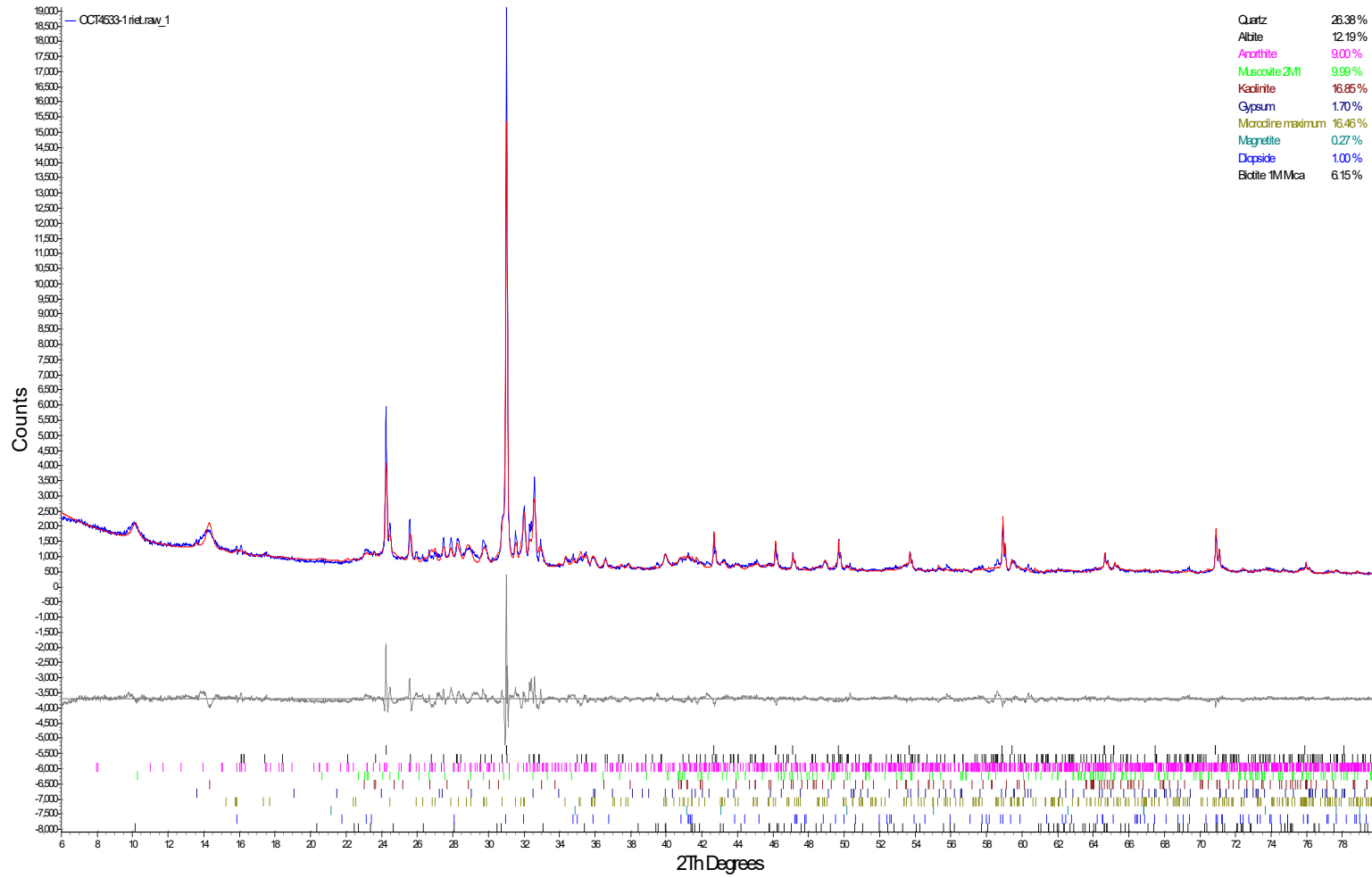
Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

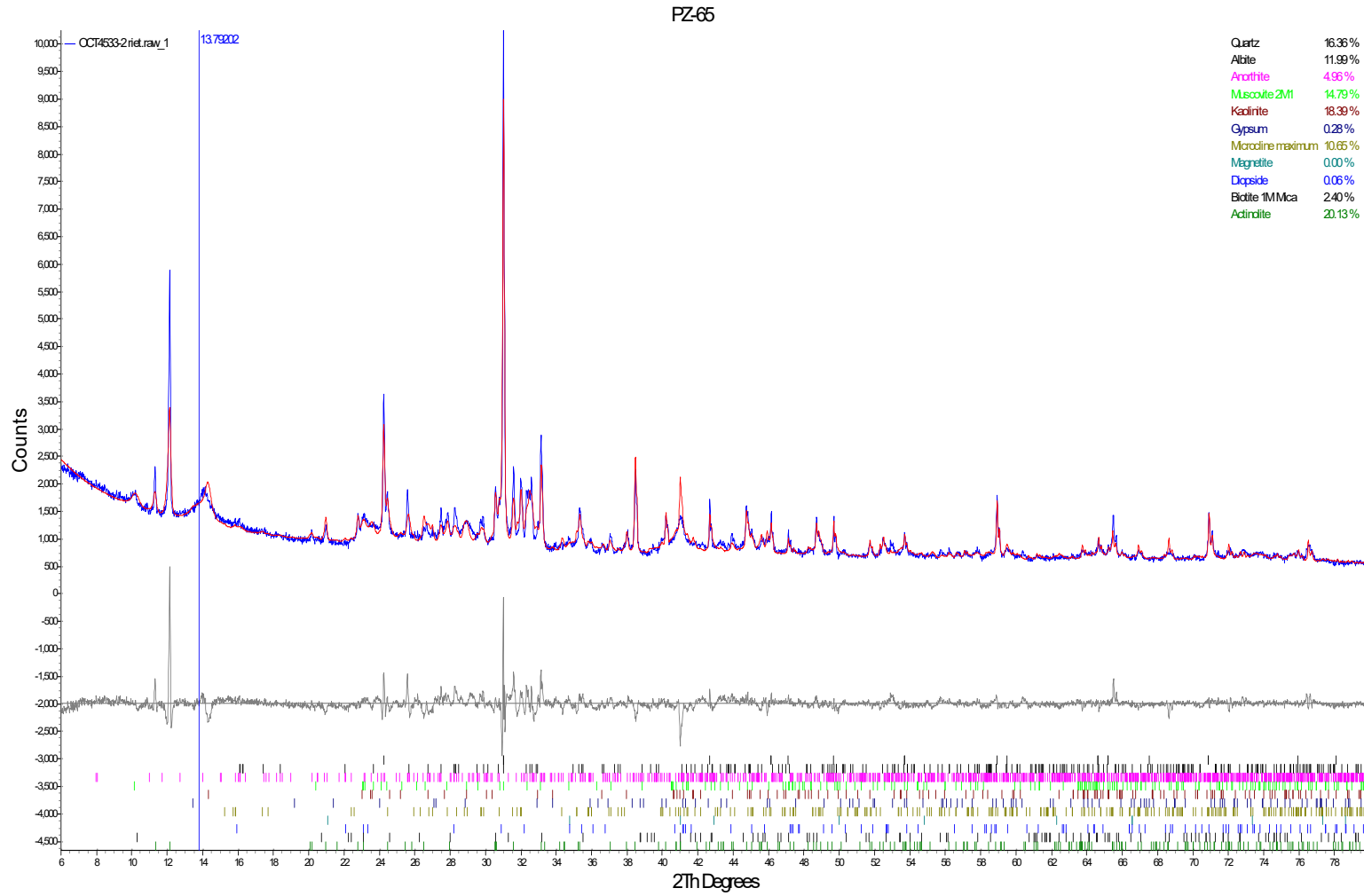
Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

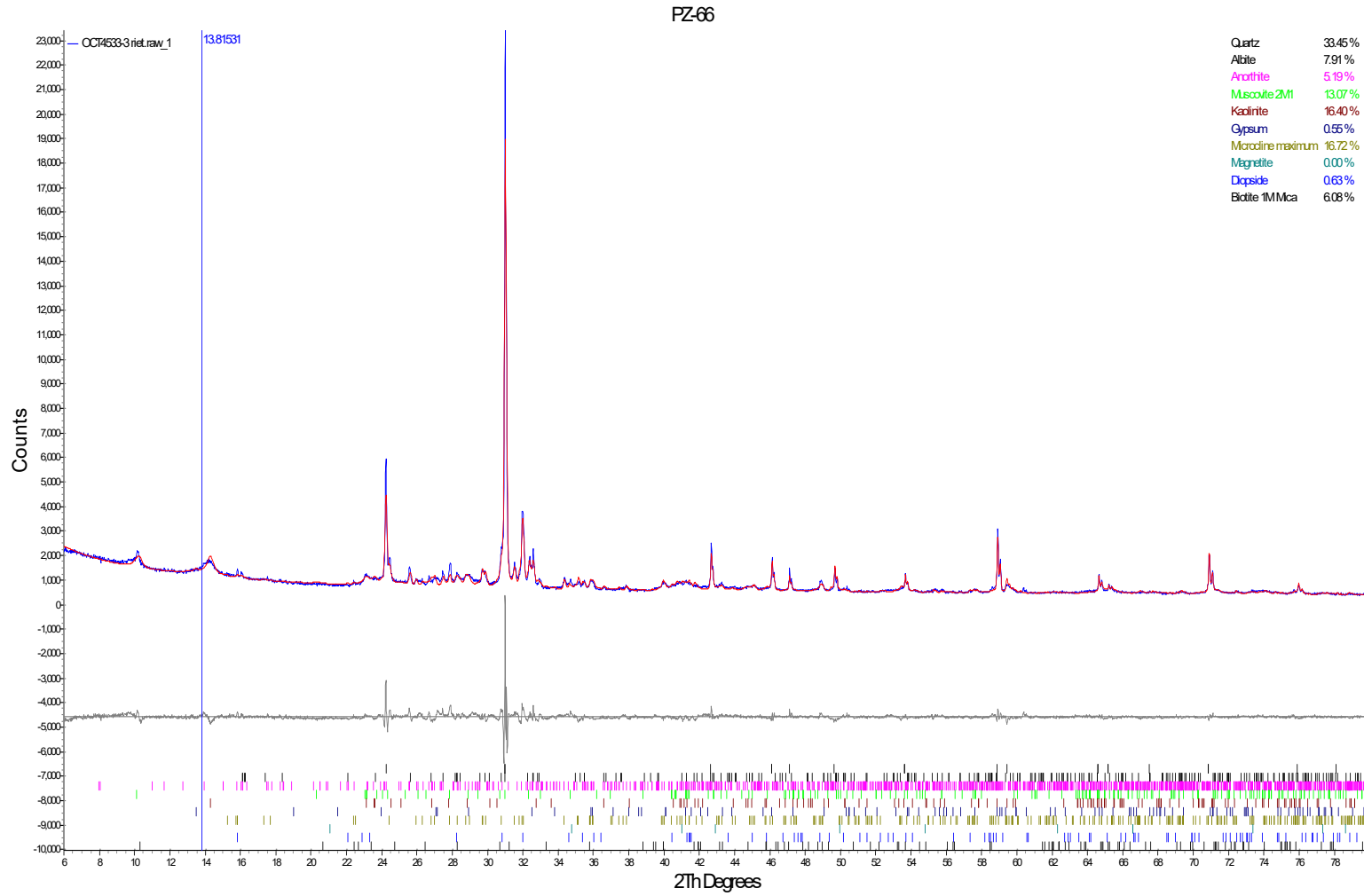
The weight percent quantities indicated have been normalized to a sum of 100%.

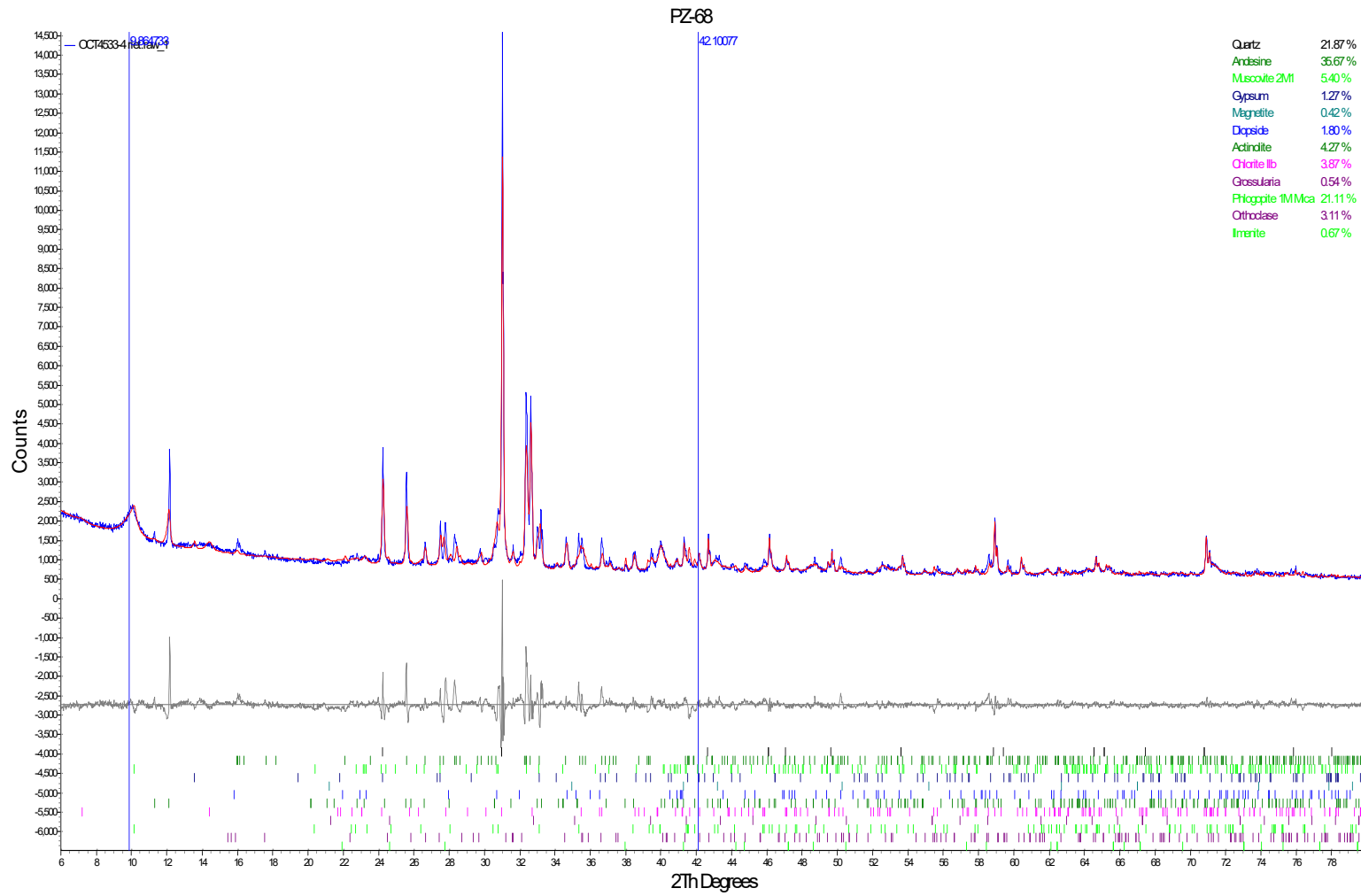
Mineral/Compound	Formula
Quartz	SiO <sub>2</sub>
Plagioclase	(NaSi,CaAl)AlSi <sub>2</sub> O <sub>8</sub>
Potassium-feldspar	KAlSi <sub>3</sub> O <sub>8</sub>
Mica	K(Mg,Fe)Al <sub>2</sub> Si <sub>3</sub> AlO <sub>10</sub> (OH) <sub>2</sub>
Kaolinite	Al <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> (OH) <sub>4</sub>
Gypsum	CaSO <sub>4</sub> ·2H <sub>2</sub> O
Magnetite	Fe <sub>3</sub> O <sub>4</sub>
Diopside	CaMgSi <sub>2</sub> O <sub>6</sub>
Actinolite	Ca <sub>2</sub> (Mg,Fe) <sub>5</sub> Si <sub>8</sub> O <sub>22</sub> (OH) <sub>2</sub>
Chlorite	(Fe,(Mg,Mn) <sub>5</sub> ,Al)(Si <sub>3</sub> Al)O <sub>10</sub> (OH) <sub>8</sub>
Grossular	Ca <sub>3</sub> Al <sub>2</sub> Si <sub>3</sub> O <sub>12</sub>
Ilmenite	FeTiO <sub>3</sub>

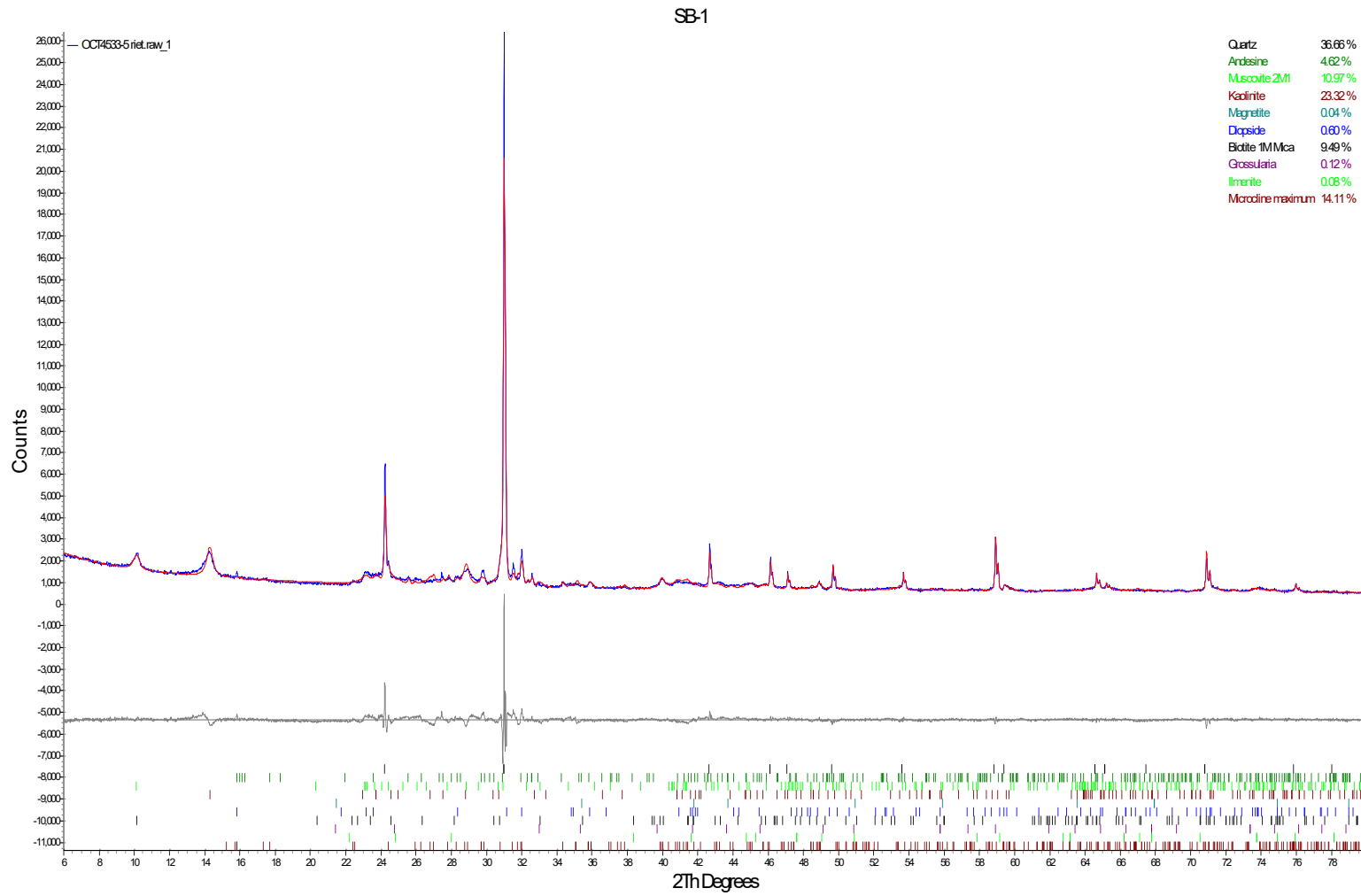
PZ-64



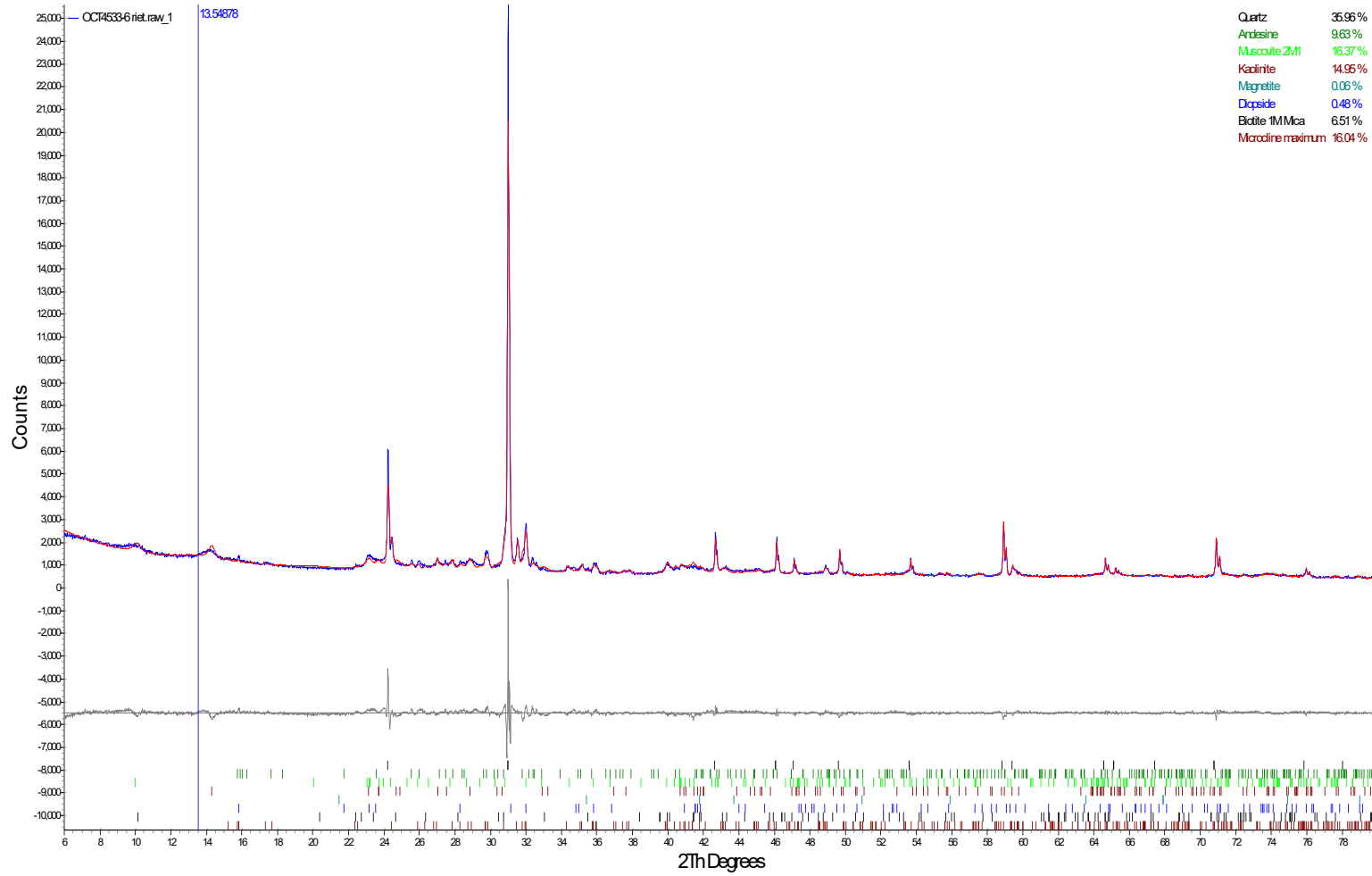








SB-2







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31-January-2023


**Date Rec. :** 28 November 2022  
**LR Report:** CA19283-NOV22  
**Reference:** Plant Branch SIREMLABUS. 02. 10.  
8151  
  
**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

Analysis	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time			31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	31-Jan-23	09:52	0.7	< 0.5	< 0.5
Be [µg/g]	31-Jan-23	09:52	1.4	1.5	1.1
Co [µg/g]	31-Jan-23	09:52	16	9.1	3.7
Se [µg/g]	31-Jan-23	09:52	< 0.7	< 0.7	< 0.7

Fraction 6 Residual metals

*Catharine Arnold*  
  
**Catharine Arnold, B.Sc., C.Chem**  
**Project Specialist,**  
**Environment, Health & Safety**



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31-January-2023

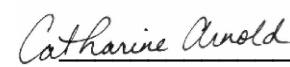
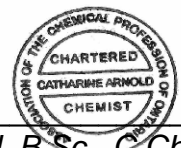
**Date Rec. :** 28 November 2022  
**LR Report:** CA19282-NOV22  
**Reference:** Plant Branch SIREMLABUS. 02. 10.  
8151  
  
**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

Analysis	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time			31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	31-Jan-23	09:52	< 0.5	< 0.5	< 0.5
Be [µg/g]	31-Jan-23	09:52	0.05	0.12	0.09
Co [µg/g]	31-Jan-23	09:52	0.27	0.45	0.70
Se [µg/g]	31-Jan-23	09:52	< 0.7	< 0.7	< 0.7

Fraction 5 Bound to Organic Material

  
  
**Catharine Arnold, B.Sc., C.Chem**  
**Project Specialist,**  
**Environment, Health & Safety**



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**Tessier Leach Fraction 4 - Metals Bound to Fe and Mn Oxides**

31-January-2023

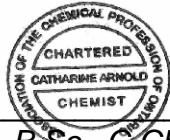
**Date Rec. :** 28 November 2022  
**LR Report:** CA19281-NOV22  
**Reference:** Plant Branch SIREMLABUS. 02. 10. 8151  
  
**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

Analysis	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time			31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	31-Jan-23	09:51	< 0.5	< 0.5	< 0.5
Be [µg/g]	31-Jan-23	09:51	0.10	0.44	0.30
Co [µg/g]	31-Jan-23	09:51	2.4	4.4	4.0
Se [µg/g]	31-Jan-23	09:51	< 0.7	< 0.7	< 0.7

Fraction 4 Metals Bound to Fe and Mn Oxides

*Catharine Arnold*  
  
**Catharine Arnold, B.Sc., C.Chem**  
**Project Specialist,**  
**Environment, Health & Safety**



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31-January-2023


**Date Rec. :** 28 November 2022  
**LR Report:** CA19280-NOV22  
**Reference:** Plant Branch SIREMLABUS. 02. 10.  
8151  
  
**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time					31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.5	< 0.5	< 0.5
Be [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	0.02	0.10	0.14
Co [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	0.76	1.1	1.4
Se [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.7	< 0.7	< 0.7

Fraction 3 Metals Bound to Carbonates

*Catharine Arnold*  
  
**Catharine Arnold, B.Sc., C.Chem**  
**Project Specialist,**  
**Environment, Health & Safety**



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Fax:

31-January-2023

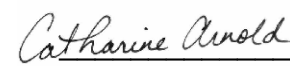
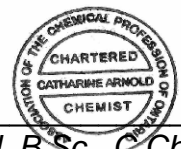
**Date Rec. :** 28 November 2022  
**LR Report:** CA19279-NOV22  
**Reference:** Plant Branch SIREMLABUS. 02. 10.  
8151  
  
**Copy:** #1

# CERTIFICATE OF ANALYSIS

## Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	8: PZ-68	9: SB-1	10: SB-2
Sample Date & Time					31-Aug-22	06-Oct-22 08:30	06-Oct-22 08:30
As [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.5	< 0.5	< 0.5
Be [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.02	< 0.02	< 0.02
Co [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	0.02	0.08	0.10
Se [µg/g]	19-Jan-23	23:42	31-Jan-23	09:50	< 0.7	< 0.7	< 0.7

Fracti on 2 Exchangeabl e Metal s

  
  
**Catharine Arnold, B.Sc., C.Chem**  
**Project Specialist,**  
**Environment, Health & Safety**



February 27, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Orders: 609212,608413,608602,608803 and 608969

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 25, 2023, January 26, 2023, January 27, 2023, January 31, 2023 and February 02, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

**Certificate of Analysis Report  
for**

GPCC001 Georgia Power Company

Client SDG: 608602 GEL Work Order: 608602

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

---

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 609212 GEL Work Order: 609212

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

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## GEL LABORATORIES LLC

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### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608803 GEL Work Order: 608803

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

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# GEL LABORATORIES LLC

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## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608413 GEL Work Order: 608413

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin L. Trent*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 608969 GEL Work Order: 608969

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by

*Erin S. Trent*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S	Project: GPCC00101
Sample ID: 608413001	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 13:10	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.97			SU			AJ1	01/24/23	1310	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1310	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.79	0.0670	0.200	mg/L		1	HXC1	01/25/23	1624	2374002	3
Fluoride	J	0.0926	0.0330	0.100	mg/L		1					
Sulfate		0.628	0.133	0.400	mg/L		1					
Nitrate-N		0.945	0.165	0.500	mg/L		5	HXC1	01/25/23	2234	2374002	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1044	2374419	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1445	2374301	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00530	0.00520	0.0150	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		3.28	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1905	2374301	7
Barium		0.0576	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		5.62	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	J	0.00103	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.54	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		5.52	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S Project: GPCC00101  
Sample ID: 608413001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		59.0	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		32.0	1.45	4.00	mg/L			EK1	01/30/23	1520	2375521	10
Bicarbonate alkalinity (CaCO3)		32.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12S  
Sample ID: 608413001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I	Project: GPCC00101
Sample ID: 608413002	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 14:50	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.48			SU			AJ1	01/24/23	1450	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1450	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		2.49	0.0670	0.200	mg/L		1	HXC1	01/25/23	1655	2374002	3
Fluoride		0.214	0.0330	0.100	mg/L		1					
Sulfate		1.80	0.133	0.400	mg/L		1					
Nitrate-N		0.438	0.0660	0.200	mg/L		2	HXC1	01/26/23	0007	2374002	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1046	2374419	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1448	2374301	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00884	0.00520	0.0150	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00529	0.00300	0.0100	mg/L	1.00	1					
Magnesium		3.98	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000388	0.000200	0.00100	mg/L	1.00	1					
Antimony		0.0245	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1908	2374301	7
Barium		0.0512	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		13.7	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	J	0.00405	0.00100	0.00500	mg/L	1.00	1					
Potassium		3.61	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		11.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I Project: GPCC00101  
Sample ID: 608413002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		114	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		65.2	1.45	4.00	mg/L			EK1	01/30/23	1528	2375521	10
Bicarbonate alkalinity (CaCO3)		65.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-12I  
Sample ID: 608413002

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S	Project: GPCC00101
Sample ID: 608413003	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 14:15	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.76			SU			AJ1	01/24/23	1415	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1415	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N		0.261	0.0660	0.200	mg/L		2	HXC1	01/26/23	0037	2374002	3
Chloride		2.88	0.0670	0.200	mg/L		1	HXC1	01/25/23	1726	2374002	4
Fluoride		0.231	0.0330	0.100	mg/L		1					
Sulfate		19.7	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1048	2374419	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1912	2374301	6
Barium		0.0468	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		6.97	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.00	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		10.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1450	2374301	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0437	0.00520	0.0150	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00749	0.00300	0.0100	mg/L	1.00	1					
Magnesium		4.43	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S	Project: GPCC00101
Sample ID: 608413003	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		102	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		31.0	1.45	4.00	mg/L			EK1	01/30/23	1531	2375521	10
Bicarbonate alkalinity (CaCO3)		31.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWA-23S  
Sample ID: 608413003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S	Project: GPCC00101
Sample ID: 608413004	Client ID: GPCC001
Matrix: WG	
Collect Date: 24-JAN-23 15:41	
Receive Date: 25-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.05			SU			AJ1	01/24/23	1541	2373861	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	01/24/23	1541	2373861	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		247	2.66	8.00	mg/L		20	HXC1	01/26/23	0108	2374002	3
Chloride		4.49	0.0670	0.200	mg/L		1	HXC1	01/25/23	1757	2374002	4
Fluoride	J	0.0820	0.0330	0.100	mg/L		1					
Nitrate-N		0.223	0.0660	0.200	mg/L		2	HXC1	01/26/23	0139	2374002	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/27/23	1049	2374419	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/01/23	1915	2374301	7
Barium		0.0182	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		46.6	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Potassium		2.70	0.0800	0.300	mg/L	1.00	1					
Selenium		0.198	0.00150	0.00500	mg/L	1.00	1					
Sodium		27.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.11	0.0520	0.150	mg/L	1.00	10	SKJ	02/03/23	1424	2374301	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/03/23	1538	2374301	9
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00700	0.00300	0.0100	mg/L	1.00	1					
Magnesium		32.8	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S	Project: GPCC00101
Sample ID: 608413004	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		425	2.38	10.0	mg/L			CH6	01/31/23	1235	2376170	10
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1543	2374521	11
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		34.0	1.45	4.00	mg/L			EK1	01/30/23	1540	2375521	12
Bicarbonate alkalinity (CaCO3)		34.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/26/23	1222	2374418
SW846 3005A	ICP-MS 3005A PREP	LG2	01/26/23	0815	2374300

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 27, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-32S  
Sample ID: 608413004

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44 Project: GPCC00101  
Sample ID: 608602001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 25-JAN-23 13:25  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.13			SU			EOS1	01/25/23	1325	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1325	2374720	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	U	ND	0.165	0.500	mg/L		5	HXC1	01/26/23	2255	2374768	3
Sulfate		41.0	0.665	2.00	mg/L		5					
Chloride		5.84	0.0670	0.200	mg/L		1	HXC1	01/26/23	1527	2374768	4
Fluoride		0.130	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1227	2375028	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.47	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1739	2374786	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1836	2374786	7
Lithium	J	0.00728	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.396	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1103	2374786	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1910	2374786	9
Arsenic	J	0.00221	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0498	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		25.1	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0504	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		10.8	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.95	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		12.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-44 Project: GPCC00101  
Sample ID: 608602001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		156	2.38	10.0	mg/L		CH6	02/01/23	1135	2376740		10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 JW2	01/30/23	1542	2374524		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		79.0	1.45	4.00	mg/L		EK1	02/06/23	1119	2378173		12
Bicarbonate alkalinity (CaCO3)		79.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-44	Project:	GPCC00101
Sample ID:	608602001	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01      Project: GPCC00101  
Sample ID: 608602002      Client ID: GPCC001  
Matrix: WG  
Collect Date: 25-JAN-23 12:00  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.151	0.0330	0.100	mg/L		1	HXC1	01/26/23	1557	2374768	1
Nitrate-N	J	0.0824	0.0330	0.100	mg/L		1					
Chloride		27.3	0.670	2.00	mg/L		10	HXC1	01/27/23	0024	2374768	2
Sulfate		102	1.33	4.00	mg/L		10					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1232	2375028	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1754	2374786	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0702	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0362	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		34.9	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00261	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0846	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		17.2	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.254	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000493	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.83	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1901	2374786	5
Lithium	J	0.00313	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		253	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	6
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	7

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-01 Project: GPCC00101  
Sample ID: 608602002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>		39.4	1.45	4.00	mg/L			EK1	02/06/23	1123	2378173	8
Bicarbonate alkalinity (CaCO <sub>3</sub> )		39.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	
7	SM 4500-S (2-) D	
8	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45      Project: GPCC00101  
Sample ID: 608602003      Client ID: GPCC001  
Matrix: WG  
Collect Date: 25-JAN-23 14:40  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.82			SU			EOS1	01/25/23	1440	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1440	2374720	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N	J	0.126	0.0660	0.200	mg/L		2	HXC1	01/27/23	0054	2374768	3
Chloride		27.4	0.670	2.00	mg/L		10	HXC1	01/27/23	0124	2374768	4
Sulfate		102	1.33	4.00	mg/L		10					
Fluoride		0.163	0.0330	0.100	mg/L		1	HXC1	01/26/23	1627	2374768	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1233	2375028	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1905	2374786	7
Lithium	J	0.00333	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1757	2374786	8
Arsenic	J	0.00225	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0695	0.000670	0.00400	mg/L	1.00	1					
Boron		0.0355	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		34.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00258	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0752	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000595	0.000500	0.00200	mg/L	1.00	1					
Magnesium		17.3	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.254	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000545	0.000200	0.00100	mg/L	1.00	1					
Potassium		3.83	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		16.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45 Project: GPCC00101  
Sample ID: 608602003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		251	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		38.4	1.45	4.00	mg/L			EK1	02/06/23	1132	2378173	11
Bicarbonate alkalinity (CaCO3)		38.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-45  
Sample ID: 608602003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04      Project: GPCC00101  
Sample ID: 608602004      Client ID: GPCC001  
Matrix: WQ  
Collect Date: 25-JAN-23 16:30  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	01/26/23	1657	2374768	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0803	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1235	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1908	2374786	3
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1801	2374786	4
Arsenic	J	0.00285	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	6



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-04 Project: GPCC00101  
Sample ID: 608602004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1203	2378173	7
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01      Project: GPCC00101  
Sample ID: 608602005      Client ID: GPCC001  
Matrix: WQ  
Collect Date: 25-JAN-23 13:05  
Receive Date: 26-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	HXC1	01/26/23	1726	2374768	1
Fluoride	J	0.0641	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1237	2375028	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1805	2374786	3
Arsenic	J	0.00294	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1912	2374786	4
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	5
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	6

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-01 Project: GPCC00101  
Sample ID: 608602005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1209	2378173	7
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	
6	SM 4500-S (2-) D	
7	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50	Project: GPCC00101
Sample ID: 608602006	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 13:25	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.18			SU			EOS1	01/25/23	1325	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1325	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		14.7	0.670	2.00	mg/L		10	HXC1	01/27/23	0324	2374768	3
Fluoride		0.432	0.0330	0.100	mg/L		1	HXC1	01/26/23	1756	2374768	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1290	26.6	80.0	mg/L		200	HXC1	01/27/23	0154	2374768	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1238	2375028	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.383	0.0260	0.0750	mg/L	1.00	5	SKJ	02/08/23	1819	2374786	7
Calcium		216	0.400	1.00	mg/L	1.00	5					
Cobalt		1.35	0.00150	0.00500	mg/L	1.00	5					
Magnesium		153	0.0500	0.150	mg/L	1.00	5					
Sodium		51.5	0.400	1.25	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1928	2374786	8
Arsenic	J	0.00236	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0165	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00726	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		0.193	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		10.8	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00189	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		79.6	0.100	0.500	mg/L	1.00	100	SKJ	02/08/23	1816	2374786	9
Beryllium		0.00962	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1916	2374786	10
Lithium		0.0542	0.00300	0.0100	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50 Project: GPCC00101  
Sample ID: 608602006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2040	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1542	2374524	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		14.2	1.45	4.00	mg/L			EK1	02/06/23	1212	2378173	13
Bicarbonate alkalinity (CaCO3)		14.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 7470A		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SM 2540C		
12	SM 4500-S (2-) D		
13	SM 2320B		

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-50  
Sample ID: 608602006

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I	Project: GPCC00101
Sample ID: 608602007	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 15:10	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.25			SU			EOS1	01/25/23	1510	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/25/23	1510	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		145	2.66	8.00	mg/L		20	HXC1	01/27/23	0354	2374768	3
Chloride		6.35	0.0670	0.200	mg/L		1	HXC1	01/26/23	1826	2374768	4
Fluoride		0.169	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1240	2375028	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.79	0.104	0.300	mg/L	1.00	20	SKJ	02/08/23	1823	2374786	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1919	2374786	7
Lithium		0.0186	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.560	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1113	2374786	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1938	2374786	9
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0249	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		36.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		1.34	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		19.3	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000609	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.97	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		20.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I Project: GPCC00101  
Sample ID: 608602007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		276	2.38	10.0	mg/L			CH6	02/01/23	1135	2376740	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	01/30/23	1541	2375142	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		46.0	1.45	4.00	mg/L			EK1	02/06/23	1217	2378173	12
Bicarbonate alkalinity (CaCO3)		46.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-52I  
Sample ID: 608602007

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I	Project: GPCC00101
Sample ID: 608602008	Client ID: GPCC001
Matrix: WG	
Collect Date: 25-JAN-23 13:45	
Receive Date: 26-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.63			SU			EOS1	01/25/23	1345	2374720	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/25/23	1345	2374720	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.81	0.0670	0.200	mg/L		1	HXC1	01/26/23	1856	2374768	3
Fluoride		0.152	0.0330	0.100	mg/L		1					
Nitrate-N		0.659	0.0330	0.100	mg/L		1					
Sulfate		150	2.66	8.00	mg/L		20	HXC1	01/27/23	0423	2374768	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/30/23	1241	2375028	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/08/23	1942	2374786	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0166	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00711	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		6.59	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.89	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		15.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		1.14	0.0520	0.150	mg/L	1.00	10	SKJ	02/08/23	1826	2374786	7
Calcium		55.7	0.800	2.00	mg/L	1.00	10					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	SKJ	02/07/23	1923	2374786	8
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.885	0.00100	0.00500	mg/L	1.00	1	SKJ	02/09/23	1115	2374786	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I Project: GPCC00101  
Sample ID: 608602008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		260	2.38	10.0	mg/L		CH6	02/01/23	1135	2376740		10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 JW2	01/30/23	1541	2375142		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		31.0	1.45	4.00	mg/L		EK1	02/06/23	1220	2378173		12
Bicarbonate alkalinity (CaCO3)		31.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/27/23	0959	2375027
SW846 3005A	ICP-MS 3005A PREP	LG2	01/27/23	0830	2374785

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-27I  
Sample ID: 608602008

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I	Project: GPCC00101
Sample ID: 608803001	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 10:15	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.18			SU			EOS1	01/26/23	1015	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1015	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.96	0.0670	0.200	mg/L		1	JLD1	01/27/23	1731	2375330	3
Fluoride		0.202	0.0330	0.100	mg/L		1					
Nitrate-N		1.17	0.165	0.500	mg/L		5	JLD1	01/28/23	0216	2375330	4
Sulfate		182	2.66	8.00	mg/L		20	JLD1	01/28/23	0247	2375330	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1013	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.45	0.104	0.300	mg/L	1.00	20	PRB	02/04/23	1942	2375324	7
Calcium		57.6	1.60	4.00	mg/L	1.00	20					
Manganese		1.71	0.0200	0.100	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2145	2375324	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0293	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00320	0.000300	0.00100	mg/L	1.00	1					
Iron		0.453	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		22.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000920	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.59	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		17.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I Project: GPCC00101  
Sample ID: 608803001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		339	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		82.8	1.45	4.00	mg/L			EK1	02/06/23	1254	2378066	11
Bicarbonate alkalinity (CaCO3)		82.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-25I  
Sample ID: 608803001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I	Project: GPCC00101
Sample ID: 608803002	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 11:30	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.30			SU			EOS1	01/26/23	1130	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		5			mg/L			EOS1	01/26/23	1130	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.59	0.0670	0.200	mg/L		1	JLD1	01/27/23	1802	2375330	3
Fluoride	J	0.0935	0.0330	0.100	mg/L		1					
Nitrate-N		0.102	0.0330	0.100	mg/L		1					
Sulfate		293	3.33	10.0	mg/L		25	JLD1	01/28/23	0317	2375330	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1017	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.07	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	1957	2375324	6
Calcium		68.0	0.800	2.00	mg/L	1.00	10					
Manganese		1.43	0.0100	0.0500	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2203	2375324	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0180	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00109	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00823	0.000300	0.00100	mg/L	1.00	1					
Iron		23.0	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00331	0.00300	0.0100	mg/L	1.00	1					
Magnesium		8.54	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		10.0	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		17.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I Project: GPCC00101  
Sample ID: 608803002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		419	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1353	2378066	10
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-29I  
Sample ID: 608803002

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I	Project: GPCC00101
Sample ID: 608803003	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 11:05	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.28			SU			EOS1	01/26/23	1105	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1105	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.82	0.0670	0.200	mg/L		1	JLD1	01/27/23	1833	2375330	3
Fluoride		0.167	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1030	13.3	40.0	mg/L		100	JLD1	01/28/23	0348	2375330	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1019	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		2.17	0.104	0.300	mg/L	1.00	20	PRB	02/04/23	2000	2375324	6
Calcium		361	1.60	4.00	mg/L	1.00	20					
Magnesium		64.4	0.200	0.600	mg/L	1.00	20					
Manganese		1.22	0.0200	0.100	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2207	2375324	7
Arsenic	J	0.00208	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0397	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00158	0.000300	0.00100	mg/L	1.00	1					
Iron		2.33	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0279	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00140	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.54	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		32.4	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I Project: GPCC00101  
Sample ID: 608803003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1680	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		131	1.45	4.00	mg/L			EK1	02/06/23	1356	2378066	10
Bicarbonate alkalinity (CaCO3)		131	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-30I  
Sample ID: 608803003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05	Project: GPCC00101
Sample ID: 608803004	Client ID: GPCC001
Matrix: WQ	
Collect Date: 26-JAN-23 16:10	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	01/27/23	1904	2375330	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1027	2375754	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2004	2375324	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	J	0.00620	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	4
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	5

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-05 Project: GPCC00101  
Sample ID: 608803004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	1.60	1.45	4.00	mg/L		EK1	02/06/23	1358	2378066		6
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	1.60	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02      Project: GPCC00101  
Sample ID: 608803005      Client ID: GPCC001  
Matrix: WQ  
Collect Date: 26-JAN-23 14:25  
Receive Date: 27-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.165	0.0670	0.200	mg/L		1	JLD1	01/27/23	1935	2375330	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1029	2375754	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2008	2375324	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	4
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	5



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-02 Project: GPCC00101  
Sample ID: 608803005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1401	2378066	6
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SM 2540C	
5	SM 4500-S (2-) D	
6	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51I Project: GPCC00101  
Sample ID: 608803006 Client ID: GPCC001  
Matrix: WG  
Collect Date: 26-JAN-23 12:00  
Receive Date: 27-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.44			SU			EOS1	01/26/23	1200	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1200	2375305	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1150	13.3	40.0	mg/L		100	JLD1	01/28/23	0552	2375330	3
Fluoride		0.120	0.0330	0.100	mg/L		1	JLD1	01/27/23	2006	2375330	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		9.50	0.134	0.400	mg/L		2	JLD1	01/28/23	0419	2375330	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1031	2375754	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.445	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2018	2375324	7
Calcium		198	0.800	2.00	mg/L	1.00	10					
Magnesium		131	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2210	2375324	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0152	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00101	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0231	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0951	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0247	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000283	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.5	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		47.9	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		47.7	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2022	2375324	9
Solids Analysis												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-511 Project: GPCC00101  
Sample ID: 608803006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1750	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		23.2	1.45	4.00	mg/L			EK1	02/06/23	1403	2378066	12
Bicarbonate alkalinity (CaCO3)		23.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-51I	Project:	GPCC00101
Sample ID:	608803006	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02	Project: GPCC00101
Sample ID: 608803007	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 12:00	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		11.8	0.335	1.00	mg/L		5	JLD1	01/28/23	0623	2375330	1
Fluoride		1.13	0.0330	0.100	mg/L		1	JLD1	01/27/23	2036	2375330	2
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		954	13.3	40.0	mg/L		100	JLD1	01/28/23	0653	2375330	3
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1032	2375754	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Manganese		30.8	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2029	2375324	5
Boron		0.447	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2026	2375324	6
Calcium		150	0.800	2.00	mg/L	1.00	10					
Magnesium		86.4	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2225	2375324	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0169	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0378	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00429	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.522	0.000300	0.00100	mg/L	1.00	1					
Iron		48.3	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000896	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0547	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.63	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00278	0.00150	0.00500	mg/L	1.00	1					
Sodium		36.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		1410	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	8
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	9

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD-02 Project: GPCC00101  
Sample ID: 608803007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1406	2378066	10
Bicarbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47	Project: GPCC00101
Sample ID: 608803008	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 13:33	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.65			SU			EOS1	01/26/23	1333	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/26/23	1333	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.96	0.0670	0.200	mg/L		1	JLD1	01/27/23	1713	2375336	3
Fluoride		0.117	0.0330	0.100	mg/L		1					
Nitrate-N	J	0.0735	0.0330	0.100	mg/L		1					
Sulfate		1310	26.6	80.0	mg/L		200	JLD1	01/28/23	0055	2375336	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1037	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Manganese		0.0154	0.00100	0.00500	mg/L	1.00	1	PRB	02/05/23	1045	2375324	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2228	2375324	7
Arsenic	J	0.00240	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0311	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000376	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0949	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0506	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000270	0.000200	0.00100	mg/L	1.00	1					
Potassium		12.6	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		46.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.661	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2033	2375324	8
Calcium		331	0.800	2.00	mg/L	1.00	10					
Magnesium		123	0.100	0.300	mg/L	1.00	10					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-BRGWC-47	Project: GPCC00101
Sample ID: 608803008	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2010	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		25.6	1.45	4.00	mg/L			EK1	02/06/23	1408	2378066	11
Bicarbonate alkalinity (CaCO3)		25.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-BRGWC-47	Project:	GPCC00101
Sample ID:	608803008	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D	Project: GPCC00101
Sample ID: 608803009	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 09:50	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.20			SU			EOS1	01/26/23	0950	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/26/23	0950	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.354	0.0330	0.100	mg/L		1	JLD1	01/27/23	1743	2375336	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		21.8	2.68	8.00	mg/L		40	JLD1	01/28/23	0126	2375336	4
Sulfate		370	5.32	16.0	mg/L		40					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1039	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.0397	0.00520	0.0150	mg/L	1.00	1	PRB	02/05/23	1030	2375324	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2232	2375324	7
Arsenic	J	0.00275	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0481	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		1.59	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00883	0.00300	0.0100	mg/L	1.00	1					
Magnesium		29.5	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000850	0.000200	0.00100	mg/L	1.00	1					
Potassium		12.4	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		119	0.800	2.00	mg/L	1.00	10	PRB	02/04/23	2037	2375324	8
Manganese		1.16	0.0100	0.0500	mg/L	1.00	10					
Sodium		47.7	0.800	2.50	mg/L	1.00	10					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID: BRA-PZ-51D	Project: GPCC00101
Sample ID: 608803009	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		693	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	01/31/23	1657	2375859	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		128	1.45	4.00	mg/L			EK1	02/06/23	1415	2378066	11
Bicarbonate alkalinity (CaCO3)		128	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51D  
Sample ID: 608803009

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I	Project: GPCC00101
Sample ID: 608803010	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 15:00	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		3.93			SU			EOS1	01/26/23	1500	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		4			mg/L			EOS1	01/26/23	1500	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1070	13.3	40.0	mg/L		100	JLD1	01/28/23	0227	2375336	3
Chloride		12.1	0.134	0.400	mg/L		2	JLD1	01/28/23	0157	2375336	4
Fluoride		1.19	0.0330	0.100	mg/L		1	JLD1	01/27/23	1814	2375336	5
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1040	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.440	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2047	2375324	7
Calcium		151	0.800	2.00	mg/L	1.00	10					
Magnesium		86.3	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2236	2375324	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0167	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0377	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00435	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.518	0.000300	0.00100	mg/L	1.00	1					
Iron		47.6	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000895	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0553	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.64	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00265	0.00150	0.00500	mg/L	1.00	1					
Sodium		36.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		30.0	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2051	2375324	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I Project: GPCC00101  
Sample ID: 608803010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1440	2.38	10.0	mg/L		CH6	02/01/23	1305	2376741		10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1 HH2	01/31/23	1657	2375859		11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L		EK1	02/06/23	1418	2378066		12
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-58I  
Sample ID: 608803010

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I	Project: GPCC00101
Sample ID: 608803011	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 13:17	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		3.78			SU			EOS1	01/26/23	1317	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6.5			mg/L			EOS1	01/26/23	1317	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		41.4	0.670	2.00	mg/L		10	JLD1	01/28/23	0258	2375336	3
Fluoride		2.83	0.330	1.00	mg/L		10					
Nitrate-N	U	ND	0.330	1.00	mg/L		10					
Sulfate		4000	66.5	200	mg/L		500	JLD1	01/28/23	0329	2375336	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1042	2375754	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		278	8.00	20.0	mg/L	1.00	100	PRB	02/04/23	2058	2375324	6
Iron		446	3.30	10.0	mg/L	1.00	100					
Manganese		91.8	0.100	0.500	mg/L	1.00	100					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2239	2375324	7
Arsenic		0.0237	0.00200	0.00500	mg/L	1.00	1					
Beryllium		0.115	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00531	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00311	0.00300	0.0100	mg/L	1.00	1					
Lithium		0.200	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		18.6	0.0800	0.300	mg/L	1.00	1					
Selenium		0.104	0.00150	0.00500	mg/L	1.00	1					
Barium	J	0.0132	0.00335	0.0200	mg/L	1.00	5	PRB	02/04/23	2055	2375324	8
Cobalt		1.86	0.00150	0.00500	mg/L	1.00	5					
Lead	U	ND	0.00250	0.0100	mg/L	1.00	5					
Magnesium		193	0.0500	0.150	mg/L	1.00	5					
Sodium		98.6	0.400	1.25	mg/L	1.00	5					
Thallium	U	ND	0.00300	0.0100	mg/L	1.00	5					
Boron		0.0543	0.00520	0.0150	mg/L	1.00	1	PRB	02/05/23	1032	2375324	9
<b>Solids Analysis</b>												



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Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I Project: GPCC00101  
Sample ID: 608803011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4330	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1144	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1449	2378067	12
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-59I  
Sample ID: 608803011

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I	Project: GPCC00101
Sample ID: 608803012	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 15:05	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.60			SU			EOS1	01/26/23	1505	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0.5			mg/L			EOS1	01/26/23	1505	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		28.3	0.335	1.00	mg/L		5	JLD1	01/28/23	0400	2375336	3
Sulfate		1970	26.6	80.0	mg/L		200	JLD1	01/28/23	0431	2375336	4
Fluoride		1.66	0.0330	0.100	mg/L		1	JLD1	01/27/23	1916	2375336	5
Nitrate-N		0.512	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1044	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.288	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2102	2375324	7
Calcium		284	0.800	2.00	mg/L	1.00	10					
Cobalt		3.64	0.00300	0.0100	mg/L	1.00	10					
Magnesium		190	0.100	0.300	mg/L	1.00	10					
Sodium		62.3	0.800	2.50	mg/L	1.00	10					
Manganese		188	1.00	5.00	mg/L	1.00	1000	PRB	02/04/23	2105	2375324	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2243	2375324	9
Arsenic	J	0.00204	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0218	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0782	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.0152	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		0.663	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.114	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		14.5	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00310	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I Project: GPCC00101  
Sample ID: 608803012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2880	2.38	10.0	mg/L			CH6	02/01/23	1305	2376741	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1144	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		6.00	1.45	4.00	mg/L			EK1	02/06/23	1453	2378067	12
Bicarbonate alkalinity (CaCO3)		6.00	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-60I  
Sample ID: 608803012

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I	Project: GPCC00101
Sample ID: 608803013	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 14:10	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.16			SU			EOS1	01/26/23	1410	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0.5			mg/L			EOS1	01/26/23	1410	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.184	0.0330	0.100	mg/L		1	JLD1	01/27/23	1947	2375336	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		1490	26.6	80.0	mg/L		200	JLD1	01/28/23	0634	2375336	4
Chloride		17.0	0.335	1.00	mg/L		5	JLD1	01/28/23	0603	2375336	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1045	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Manganese		111	1.00	5.00	mg/L	1.00	1000	PRB	02/04/23	2120	2375324	7
Boron		0.353	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2116	2375324	8
Calcium		214	0.800	2.00	mg/L	1.00	10					
Magnesium		170	0.100	0.300	mg/L	1.00	10					
Sodium		59.6	0.800	2.50	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2246	2375324	9
Arsenic	J	0.00225	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0125	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00164	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000517	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.604	0.000300	0.00100	mg/L	1.00	1					
Iron		0.651	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0123	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.32	0.0800	0.300	mg/L	1.00	1					
Selenium	J	0.00321	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I	Project: GPCC00101
Sample ID: 608803013	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		2280	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	10
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1144	2376122	11
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		16.0	1.45	4.00	mg/L			EK1	02/06/23	1510	2378067	12
Bicarbonate alkalinity (CaCO3)		16.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

**The following Analytical Methods were performed:**

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 7470A		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SM 2540C		
11	SM 4500-S (2-) D		
12	SM 2320B		

**Notes:**

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Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-61I  
Sample ID: 608803013

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



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 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I	Project: GPCC00101
Sample ID: 608803014	Client ID: GPCC001
Matrix: WG	
Collect Date: 26-JAN-23 16:45	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		4.06			SU			EOS1	01/26/23	1645	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	01/26/23	1645	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		26.5	0.335	1.00	mg/L		5	JLD1	01/28/23	0705	2375336	3
Nitrate-N	U	ND	0.165	0.500	mg/L		5					
Sulfate		3160	26.6	80.0	mg/L		200	JLD1	01/28/23	0736	2375336	4
Fluoride		1.08	0.0330	0.100	mg/L		1	JLD1	01/27/23	2018	2375336	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1047	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		235	0.800	2.00	mg/L	1.00	10	PRB	02/04/23	2124	2375324	7
Iron		320	0.330	1.00	mg/L	1.00	10					
Magnesium		217	0.100	0.300	mg/L	1.00	10					
Sodium		73.0	0.800	2.50	mg/L	1.00	10					
Manganese		48.1	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2127	2375324	8
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2250	2375324	9
Arsenic		0.00926	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0103	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.0179	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00119	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00352	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.405	0.000300	0.00100	mg/L	1.00	1					
Lead	J	0.00133	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0791	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		11.3	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0212	0.00150	0.00500	mg/L	1.00	1					
Thallium	J	0.000773	0.000600	0.00200	mg/L	1.00	1					
Boron		0.0322	0.00520	0.0150	mg/L	1.00	1	PRB	02/05/23	1034	2375324	10
<b>Solids Analysis</b>												

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Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I Project: GPCC00101  
Sample ID: 608803014 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3770	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1145	2376122	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3	U	ND	1.45	4.00	mg/L			EK1	02/06/23	1513	2378067	13
Bicarbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-65I  
Sample ID: 608803014

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D	Project: GPCC00101
Sample ID: 608803015	Client ID: GPCC001
Matrix: WG	
Collect Date: 27-JAN-23 08:40	
Receive Date: 27-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.24			SU			EOS1	01/27/23	0840	2375305	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		4.5			mg/L			EOS1	01/27/23	0840	2375305	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		11.5	0.134	0.400	mg/L		2	JLD1	01/28/23	0807	2375336	3
Fluoride	J	0.151	0.0660	0.200	mg/L		2					
Sulfate		885	13.3	40.0	mg/L		100	JLD1	01/28/23	0939	2375336	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1	JLD1	01/27/23	2049	2375336	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	01/31/23	1049	2375754	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.277	0.0520	0.150	mg/L	1.00	10	PRB	02/04/23	2131	2375324	7
Calcium		214	0.800	2.00	mg/L	1.00	10					
Magnesium		86.4	0.100	0.300	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	02/04/23	2254	2375324	8
Arsenic	J	0.00215	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0315	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0728	0.000300	0.00100	mg/L	1.00	1					
Iron		4.96	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0274	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000817	0.000200	0.00100	mg/L	1.00	1					
Potassium		13.2	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		47.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		10.1	0.100	0.500	mg/L	1.00	100	PRB	02/04/23	2134	2375324	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D Project: GPCC00101  
Sample ID: 608803015 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1400	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1145	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		78.8	1.45	4.00	mg/L			EK1	02/06/23	1517	2378067	12
Bicarbonate alkalinity (CaCO3)		78.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	01/30/23	1128	2375753
SW846 3005A	ICP-MS 3005A PREP	LG2	01/30/23	0830	2375322

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SM 2540C	
11	SM 4500-S (2-) D	
12	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-50D  
Sample ID: 608803015

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-66I	Project: GPCC00101
Sample ID: 608969001	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 14:20	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.64			SU			EOS1	01/30/23	1420	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	01/30/23	1420	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		2060	26.6	80.0	mg/L		200	JLD1	01/31/23	2021	2376273	3
Fluoride	J	0.0574	0.0330	0.100	mg/L		1	JLD1	01/31/23	1103	2376273	4
Nitrate-N	J	0.0461	0.0330	0.100	mg/L		1					
Chloride		10.2	0.335	1.00	mg/L		5	JLD1	01/31/23	2052	2376273	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0946	2376750	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	1952	2376276	7
Barium		0.0284	0.000670	0.00400	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.345	0.000300	0.00100	mg/L	1.00	1					
Iron		17.8	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0131	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000675	0.000200	0.00100	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		217	0.800	2.00	mg/L	1.00	10	SKJ	02/10/23	1637	2376276	8
Sodium		62.9	0.800	2.50	mg/L	1.00	10					
Boron		0.128	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	0953	2376276	9
Magnesium		303	0.100	0.300	mg/L	1.00	10	SKJ	02/14/23	0814	2376276	10
Arsenic		0.00565	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1723	2376276	11
Beryllium	J	0.000318	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Potassium		10.8	0.0800	0.300	mg/L	1.00	1					
Selenium		0.00817	0.00150	0.00500	mg/L	1.00	1					
Manganese		109	0.500	2.50	mg/L	1.00	500	SKJ	02/10/23	1549	2376276	12
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-66I Project: GPCC00101  
Sample ID: 608969001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2890	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	13
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1553	2377896	14
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		62.4	1.45	4.00	mg/L			EK1	02/10/23	1513	2382211	15
Bicarbonate alkalinity (CaCO3)		62.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 7470A		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SW846 3005A/6020B		
12	SW846 3005A/6020B		
13	SM 2540C		
14	SM 4500-S (2-) D		
15	SM 2320B		

### Notes:



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-66I	Project:	GPCC00101
Sample ID:	608969001	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03	Project: GPCC00101
Sample ID: 608969002	Client ID: GPCC001
Matrix: WQ	
Collect Date: 30-JAN-23 13:50	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		0.204	0.0670	0.200	mg/L		1	JLD1	01/31/23	1950	2376273	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0948	2376750	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1006	2376276	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1600	2376276	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2010	2376276	5
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.0170	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.00113	0.000200	0.00100	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0757	2376276	6
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	7
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1554	2377896	8

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FB-03 Project: GPCC00101  
Sample ID: 608969002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	1.80	1.45	4.00	mg/L			EK1	02/10/23	1525	2382211	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 4500-S (2-) D	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06	Project: GPCC00101
Sample ID: 608969003	Client ID: GPCC001
Matrix: WQ	
Collect Date: 30-JAN-23 15:15	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Chloride		0.667	0.0670	0.200	mg/L		1	JLD1	01/31/23	1204	2376273	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0950	2376750	2
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1603	2376276	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium	U	ND	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2021	2376276	4
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese	J	0.00112	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium	U	ND	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1008	2376276	5
Magnesium	U	ND	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0759	2376276	6
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	7
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1554	2377896	8

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-EB-06 Project: GPCC00101  
Sample ID: 608969003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO <sub>3</sub>	J	1.80	1.45	4.00	mg/L			EK1	02/10/23	1530	2382211	9
Bicarbonate alkalinity (CaCO <sub>3</sub> )	J	1.80	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO <sub>3</sub> )	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SM 2540C	
8	SM 4500-S (2-) D	
9	SM 2320B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I	Project: GPCC00101
Sample ID: 608969004	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 14:25	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.39			SU			EOS1	01/30/23	1425	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/30/23	1425	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		9.46	0.0670	0.200	mg/L		1	JLD1	01/31/23	1235	2376273	3
Fluoride		0.297	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		618	26.6	80.0	mg/L		200	JLD1	01/31/23	2154	2376273	4
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0951	2376750	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Calcium		102	0.400	1.00	mg/L	1.00	5	SKJ	02/10/23	1649	2376276	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1743	2376276	7
Beryllium		0.000787	0.000200	0.000500	mg/L	1.00	1					
Potassium		6.19	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Magnesium		64.6	0.0500	0.150	mg/L	1.00	5	SKJ	02/14/23	0827	2376276	8
Boron		0.554	0.0260	0.0750	mg/L	1.00	5	PRB	02/14/23	1010	2376276	9
Manganese		27.9	0.100	0.500	mg/L	1.00	100	SKJ	02/10/23	1612	2376276	10
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2024	2376276	11
Barium		0.0220	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00132	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.151	0.000300	0.00100	mg/L	1.00	1					
Iron		0.588	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0359	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium		23.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I Project: GPCC00101  
Sample ID: 608969004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		898	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	12
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1555	2377896	13
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		13.2	1.45	4.00	mg/L			EK1	02/10/23	1531	2382211	14
Bicarbonate alkalinity (CaCO3)		13.2	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SM 2540C	
13	SM 4500-S (2-) D	
14	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-57I  
Sample ID: 608969004

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD03	Project: GPCC00101
Sample ID: 608969005	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 12:00	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	01/31/23	1306	2376273	1
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		717	26.6	80.0	mg/L		200	JLD1	01/31/23	2225	2376273	2
Chloride		9.86	0.335	1.00	mg/L		5	JLD1	01/31/23	2256	2376273	3
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0957	2376750	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2028	2376276	5
Barium		0.0232	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00114	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.440	0.000300	0.00100	mg/L	1.00	1					
Iron		0.534	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00711	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000251	0.000200	0.00100	mg/L	1.00	1					
Sodium		29.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Calcium		124	0.400	1.00	mg/L	1.00	5	SKJ	02/10/23	1651	2376276	6
Manganese		33.0	0.100	0.500	mg/L	1.00	100	SKJ	02/10/23	1614	2376276	7
Arsenic	J	0.00201	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1746	2376276	8
Beryllium	J	0.000291	0.000200	0.000500	mg/L	1.00	1					
Potassium		10.4	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Magnesium		72.7	0.0500	0.150	mg/L	1.00	5	SKJ	02/14/23	0829	2376276	9
Boron		0.585	0.0260	0.0750	mg/L	1.00	5	PRB	02/14/23	1011	2376276	10
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		1010	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1148	2376122	12

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-APBCD-FD03	Project: GPCC00101
Sample ID: 608969005	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		16.8	1.45	4.00	mg/L			EK1	02/10/23	1533	2382211	13
Bicarbonate alkalinity (CaCO3)		16.8	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SM 2540C	
12	SM 4500-S (2-) D	
13	SM 2320B	

**Notes:**

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I	Project: GPCC00101
Sample ID: 608969006	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 13:40	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.66			SU			EOS1	01/30/23	1340	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1			mg/L			EOS1	01/30/23	1340	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		280	3.33	10.0	mg/L		25	JLD1	02/01/23	0028	2376273	3
Chloride		7.18	0.0670	0.200	mg/L		1	JLD1	01/31/23	1337	2376273	4
Fluoride		0.230	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	0958	2376750	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1749	2376276	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium		7.95	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Manganese		6.47	0.0100	0.0500	mg/L	1.00	10	SKJ	02/10/23	1617	2376276	7
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2032	2376276	8
Barium		0.0220	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		49.8	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0280	0.000300	0.00100	mg/L	1.00	1					
Iron		0.991	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00660	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000803	0.000200	0.00100	mg/L	1.00	1					
Sodium		18.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.820	0.0520	0.150	mg/L	1.00	10	PRB	02/14/23	1013	2376276	9
Magnesium		38.2	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0835	2376276	10
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-63I Project: GPCC00101  
Sample ID: 608969006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		448	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	11
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1148	2376122	12
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		26.4	1.45	4.00	mg/L			EK1	02/10/23	1538	2382211	13
Bicarbonate alkalinity (CaCO3)		26.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 7470A		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SW846 3005A/6020B		
11	SM 2540C		
12	SM 4500-S (2-) D		
13	SM 2320B		

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-63I	Project:	GPCC00101
Sample ID:	608969006	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I	Project: GPCC00101
Sample ID: 608969007	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 13:00	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.38			SU			EOS1	01/30/23	1300	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0.5			mg/L			EOS1	01/30/23	1300	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		9.85	0.335	1.00	mg/L		5	JLD1	02/01/23	0059	2376273	3
Fluoride		0.161	0.0330	0.100	mg/L		1	JLD1	01/31/23	1408	2376273	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		647	13.3	40.0	mg/L		100	JLD1	02/01/23	0130	2376273	5
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	1000	2376750	6
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Manganese		32.6	0.100	0.500	mg/L	1.00	100	SKJ	02/10/23	1620	2376276	7
Magnesium		68.9	0.0500	0.150	mg/L	1.00	5	SKJ	02/14/23	0831	2376276	8
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1751	2376276	9
Beryllium	J	0.000293	0.000200	0.000500	mg/L	1.00	1					
Potassium		10.2	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Boron		0.561	0.0260	0.0750	mg/L	1.00	5	PRB	02/14/23	1015	2376276	10
Calcium		124	0.400	1.00	mg/L	1.00	5	SKJ	02/10/23	1700	2376276	11
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2035	2376276	12
Barium		0.0230	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00107	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.425	0.000300	0.00100	mg/L	1.00	1					
Iron		0.516	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00661	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000247	0.000200	0.00100	mg/L	1.00	1					
Sodium		27.8	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I Project: GPCC00101  
Sample ID: 608969007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1020	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	13
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1149	2376122	14
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		17.0	1.45	4.00	mg/L			EK1	02/10/23	1540	2382211	15
Bicarbonate alkalinity (CaCO3)		17.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SW846 3005A/6020B	
13	SM 2540C	
14	SM 4500-S (2-) D	
15	SM 2320B	

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-62I  
Sample ID: 608969007

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51S	Project: GPCC00101
Sample ID: 608969008	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-JAN-23 15:30	
Receive Date: 31-JAN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		6.18			SU			EOS1	01/30/23	1530	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/30/23	1530	2376217	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.45	0.0670	0.200	mg/L		1	JLD1	01/31/23	1438	2376273	3
Fluoride	J	0.0983	0.0330	0.100	mg/L		1					
Nitrate-N		1.87	0.0330	0.100	mg/L		1					
Sulfate		0.733	0.133	0.400	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	1002	2376750	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Magnesium		10.0	0.0100	0.0300	mg/L	1.00	1	SKJ	02/14/23	0806	2376276	5
Boron	J	0.0102	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1017	2376276	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1703	2376276	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Potassium		2.46	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2039	2376276	8
Barium		0.0230	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		7.87	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00115	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0375	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium		12.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Manganese		0.994	0.00500	0.0250	mg/L	1.00	5	SKJ	02/10/23	1623	2376276	9
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-51S Project: GPCC00101  
Sample ID: 608969008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		70.0	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	10
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/02/23	1149	2376122	11
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		68.0	1.45	4.00	mg/L			EK1	02/10/23	1542	2382211	12
Bicarbonate alkalinity (CaCO3)		68.0	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749

### The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SW846 3005A/6020B		
10	SM 2540C		
11	SM 4500-S (2-) D		
12	SM 2320B		

### Notes:

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-51S	Project:	GPCC00101
Sample ID:	608969008	Client ID:	GPCC001

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I Project: GPCC00101  
Sample ID: 608969009 Client ID: GPCC001  
Matrix: WG  
Collect Date: 30-JAN-23 17:00  
Receive Date: 31-JAN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.33			SU			EOS1	01/30/23	1700	2376217	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	01/30/23	1700	2376217	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		40.7	0.670	2.00	mg/L		10	JLD1	02/01/23	0201	2376273	3
Fluoride	J	0.0767	0.0330	0.100	mg/L		1	JLD1	01/31/23	1611	2376273	4
Nitrate-N		1.01	0.0330	0.100	mg/L		1					
Sulfate		2800	66.5	200	mg/L		500	JLD1	02/01/23	0334	2376273	5
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/02/23	1003	2376750	6
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.0150	0.00520	0.0150	mg/L	1.00	1	PRB	02/14/23	1019	2376276	7
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	SKJ	02/09/23	2042	2376276	8
Barium		0.0254	0.000670	0.00400	mg/L	1.00	1					
Cadmium		0.00126	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Iron		2.85	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0187	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000201	0.000200	0.00100	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		68.5	0.400	1.25	mg/L	1.00	5	SKJ	02/10/23	1711	2376276	9
Magnesium		288	0.100	0.300	mg/L	1.00	10	SKJ	02/14/23	0833	2376276	10
Calcium		372	0.800	2.00	mg/L	1.00	10	SKJ	02/10/23	1709	2376276	11
Manganese		388	0.500	2.50	mg/L	1.00	500	SKJ	02/10/23	1626	2376276	12
Cobalt		11.0	0.00600	0.0200	mg/L	1.00	20	SKJ	02/10/23	1706	2376276	13
Arsenic		0.0103	0.00200	0.00500	mg/L	1.00	1	SKJ	02/10/23	1754	2376276	14
Beryllium		0.00116	0.000200	0.000500	mg/L	1.00	1					
Potassium		14.5	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0292	0.00150	0.00500	mg/L	1.00	1					
Solids Analysis												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I Project: GPCC00101  
Sample ID: 608969009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4260	2.38	10.0	mg/L			CH6	02/02/23	1428	2377347	15
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1555	2377896	16
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		37.4	1.45	4.00	mg/L			EK1	02/10/23	1543	2382211	17
Bicarbonate alkalinity (CaCO3)		37.4	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/01/23	1154	2376749
SW846 3005A	ICP-MS 3005A PREP	EM2	01/31/23	1540	2376275

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SW846 7470A	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SW846 3005A/6020B	
10	SW846 3005A/6020B	
11	SW846 3005A/6020B	
12	SW846 3005A/6020B	
13	SW846 3005A/6020B	
14	SW846 3005A/6020B	
15	SM 2540C	
16	SM 4500-S (2-) D	
17	SM 2320B	

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## Certificate of Analysis

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Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-64I  
Sample ID: 608969009

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D	Project: GPCC00101
Sample ID: 609212001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-FEB-23 14:16	
Receive Date: 02-FEB-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		7.28			SU			EOS1	02/01/23	1416	2377722	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	02/01/23	1416	2377722	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Chloride		12.7	1.34	4.00	mg/L		20	HXC1	02/03/23	0052	2377739	3
Sulfate		258	2.66	8.00	mg/L		20					
Fluoride		0.166	0.0330	0.100	mg/L		1	HXC1	02/02/23	1654	2377739	4
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/07/23	1203	2378878	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Antimony	J	0.00176	0.00100	0.00300	mg/L	1.00	1	BAJ	02/05/23	1809	2377747	6
Arsenic		0.00580	0.00200	0.00500	mg/L	1.00	1					
Barium		0.145	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000825	0.000300	0.00100	mg/L	1.00	1					
Iron		0.405	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00899	0.00300	0.0100	mg/L	1.00	1					
Magnesium		21.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.809	0.00100	0.00500	mg/L	1.00	1					
Molybdenum		0.0111	0.000200	0.00100	mg/L	1.00	1					
Potassium		7.56	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Sodium		49.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	02/06/23	1648	2377747	7
Boron		0.255	0.0260	0.0750	mg/L	1.00	5	BAJ	02/06/23	1627	2377747	8
Calcium		86.1	0.400	1.00	mg/L	1.00	5					
<b>Solids Analysis</b>												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D	Project: GPCC00101
Sample ID: 609212001	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		525	2.38	10.0	mg/L			CH6	02/08/23	1114	2379677	9
<b>Spectrometric Analysis</b>												
<b>SM 4500-S(2-) D Sulfide "As Received"</b>												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1606	2377896	10
<b>Titration and Ion Analysis</b>												
<b>SM 2320B Total Alkalinity "As Received"</b>												
Alkalinity, Total as CaCO3		117	1.45	4.00	mg/L			EK1	02/13/23	1136	2382489	11
Bicarbonate alkalinity (CaCO3)		117	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/06/23	1118	2378875
SW846 3005A	ICP-MS 3005A PREP	LG2	02/03/23	0800	2377746

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**



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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-68D  
Sample ID: 609212001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I Project: GPCC00101  
Sample ID: 609212002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 01-FEB-23 12:47  
Receive Date: 02-FEB-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.18			SU			EOS1	02/01/23	1247	2377722	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	02/01/23	1247	2377722	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		275	2.66	8.00	mg/L		20	HXC1	02/03/23	0122	2377739	3
Chloride		5.80	0.0670	0.200	mg/L		1	HXC1	02/02/23	1724	2377739	4
Fluoride	J	0.0963	0.0330	0.100	mg/L		1					
Nitrate-N		0.144	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	02/07/23	1205	2378878	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	02/06/23	1650	2377747	6
Boron		1.29	0.0520	0.150	mg/L	1.00	10	BAJ	02/06/23	1629	2377747	7
Calcium		69.5	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	02/05/23	1813	2377747	8
Arsenic	J	0.00349	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0253	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00338	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000668	0.000300	0.00100	mg/L	1.00	1					
Iron		0.438	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00392	0.00300	0.0100	mg/L	1.00	1					
Magnesium		29.4	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0548	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.38	0.0800	0.300	mg/L	1.00	1					
Selenium		0.196	0.00150	0.00500	mg/L	1.00	1					
Sodium		28.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I	Project: GPCC00101
Sample ID: 609212002	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		441	2.38	10.0	mg/L			CH6	02/08/23	1114	2379677	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	02/06/23	1606	2377896	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		25.6	1.45	4.00	mg/L			EK1	02/13/23	1146	2382489	11
Bicarbonate alkalinity (CaCO3)		25.6	1.45	4.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	1.45	4.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	02/03/23	0800	2377746
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	02/06/23	1118	2378875

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	SM 2540C	
10	SM 4500-S (2-) D	
11	SM 2320B	

**Notes:**

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## Certificate of Analysis

Report Date: February 24, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I  
Sample ID: 609212002

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## QC Summary

Report Date: February 24, 2023

Page 1 of 13

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608803

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2375330										
QC1205306398	608658011	DUP									
Chloride		15.3		15.3	mg/L	0.281		(0%-20%)	JLD1	01/28/23	00:12
Fluoride		0.163		0.161	mg/L	1.6	^	(+/-0.100)		01/27/23	23:41
Nitrate-N		0.724		0.724	mg/L	0.0829		(0%-20%)			
Sulfate		138		138	mg/L	0.105		(0%-20%)		01/28/23	00:12
QC1205306397	LCS										
Chloride	5.00			5.00	mg/L			100 (90%-110%)		01/27/23	22:09
Fluoride	2.50			2.55	mg/L			102 (90%-110%)			
Nitrate-N	2.50			2.48	mg/L			99.2 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205306396	MB										
Chloride			U	ND	mg/L					01/27/23	21:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205306399	608658011	PS									
Chloride	5.00	1.53		6.58	mg/L			101 (90%-110%)		01/28/23	01:14

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## QC Summary

Workorder: 608803

Page 2 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2375330										
Fluoride	2.50	0.163		2.63	mg/L		98.8	(90%-110%)	JLD1	01/28/23	01:45
Nitrate-N	2.50	0.724		3.18	mg/L		98.3	(90%-110%)			
Sulfate	10.0	13.8		24.4	mg/L		106	(90%-110%)		01/28/23	01:14
Batch	2375336										
QC1205306403	608803015 DUP										
Chloride		11.5		11.5	mg/L	0.0261		(0%-20%)	JLD1	01/28/23	08:37
Fluoride	J	0.151	J	0.156	mg/L	3.13 ^		(+/-0.200)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				01/27/23	23:53
Sulfate		885		891	mg/L	0.706		(0%-20%)		01/28/23	10:10
QC1205306402	LCS										
Chloride	5.00			4.88	mg/L		97.7	(90%-110%)		01/27/23	22:21
Fluoride	2.50			2.55	mg/L		102	(90%-110%)			
Nitrate-N	2.50			2.49	mg/L		99.4	(90%-110%)			
Sulfate	10.0			10.1	mg/L		101	(90%-110%)			
QC1205306401	MB										
Chloride			U	ND	mg/L					01/27/23	21:50
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						

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## QC Summary

Workorder: 608803

Page 3 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2375336										
Sulfate			U	ND	mg/L				JLD1	01/27/23	21:50
QC1205306404	608803015 PS										
Chloride	5.00	5.74		11.3	mg/L		111 *	(90%-110%)		01/28/23	09:08
Fluoride	2.50	J 0.0754		2.65	mg/L		103	(90%-110%)			
Nitrate-N	2.50	U ND		2.43	mg/L		97.1	(90%-110%)		01/28/23	00:24
Sulfate	10.0	8.85		19.1	mg/L		102	(90%-110%)		01/28/23	10:41
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
QC1205306363	LCS										
Antimony	0.0500			0.0505	mg/L		101	(80%-120%)	PRB	02/04/23	19:39
Arsenic	0.0500			0.0491	mg/L		98.3	(80%-120%)			
Barium	0.0500			0.0532	mg/L		106	(80%-120%)			
Beryllium	0.0500			0.0576	mg/L		115	(80%-120%)			
Boron	0.100			0.109	mg/L		109	(80%-120%)			
Cadmium	0.0500			0.0511	mg/L		102	(80%-120%)			
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0502	mg/L		100	(80%-120%)			
Cobalt	0.0500			0.0504	mg/L		101	(80%-120%)			

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## QC Summary

Workorder: 608803

Page 4 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Iron	2.00			1.99	mg/L		99.3	(80%-120%)	PRB	02/04/23	19:39
Lead	0.0500			0.0517	mg/L		103	(80%-120%)			
Lithium	0.0500			0.0539	mg/L		108	(80%-120%)			
Magnesium	2.00			2.27	mg/L		113	(80%-120%)			
Manganese	0.0500			0.0492	mg/L		98.5	(80%-120%)			
Molybdenum	0.0500			0.0520	mg/L		104	(80%-120%)			
Potassium	2.00			2.12	mg/L		106	(80%-120%)			
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.15	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0500	mg/L		100	(80%-120%)			
QC1205306362	MB										
Antimony			U	ND	mg/L					02/04/23	19:35
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L						



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## *QC Summary*

Workorder: 608803

Page 5 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Cadmium			U	ND	mg/L				PRB	02/04/23	19:35
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			J	0.000280	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205306364 608803001 MS											
Antimony	0.0500	U	ND	0.0527	mg/L		105	(75%-125%)		02/04/23	21:49

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## *QC Summary*

Workorder: 608803

Page 6 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Arsenic	0.0500	U	ND	0.0518	mg/L		102	(75%-125%)	PRB	02/04/23	21:49
Barium	0.0500		0.0293	0.0815	mg/L		104	(75%-125%)			
Beryllium	0.0500	U	ND	0.0598	mg/L		119	(75%-125%)			
Boron	0.100		1.45	1.59	mg/L		N/A	(75%-125%)		02/04/23	19:46
Cadmium	0.0500	U	ND	0.0520	mg/L		104	(75%-125%)		02/04/23	21:49
Calcium	2.00		57.6	60.9	mg/L		N/A	(75%-125%)		02/04/23	19:46
Chromium	0.0500	U	ND	0.0515	mg/L		103	(75%-125%)		02/04/23	21:49
Cobalt	0.0500		0.00320	0.0540	mg/L		102	(75%-125%)			
Iron	2.00		0.453	2.54	mg/L		105	(75%-125%)			
Lead	0.0500	U	ND	0.0512	mg/L		102	(75%-125%)			
Lithium	0.0500	U	ND	0.0564	mg/L		112	(75%-125%)			
Magnesium	2.00		22.7	25.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500		1.71	1.78	mg/L		N/A	(75%-125%)		02/04/23	19:46
Molybdenum	0.0500	J	0.000920	0.0558	mg/L		110	(75%-125%)		02/04/23	21:49
Potassium	2.00		4.59	6.74	mg/L		108	(75%-125%)			

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## QC Summary

Workorder: 608803

Page 7 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Selenium	0.0500	U	ND	0.0523	mg/L		104	(75%-125%)	PRB	02/04/23	21:49
Sodium	2.00		17.8	20.4	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0502	mg/L		100	(75%-125%)			
QC1205306365	608803001 MSD										
Antimony	0.0500	U	ND	0.0529	mg/L	0.519	106	(0%-20%)		02/04/23	21:52
Arsenic	0.0500	U	ND	0.0522	mg/L	0.893	103	(0%-20%)			
Barium	0.0500		0.0293	0.0811	mg/L	0.463	104	(0%-20%)			
Beryllium	0.0500	U	ND	0.0574	mg/L	4.05	115	(0%-20%)			
Boron	0.100		1.45	1.63	mg/L	2.49	N/A	(0%-20%)		02/04/23	19:50
Cadmium	0.0500	U	ND	0.0522	mg/L	0.543	104	(0%-20%)		02/04/23	21:52
Calcium	2.00		57.6	61.8	mg/L	1.43	N/A	(0%-20%)		02/04/23	19:50
Chromium	0.0500	U	ND	0.0506	mg/L	1.74	101	(0%-20%)		02/04/23	21:52
Cobalt	0.0500		0.00320	0.0542	mg/L	0.233	102	(0%-20%)			
Iron	2.00		0.453	2.55	mg/L	0.342	105	(0%-20%)			
Lead	0.0500	U	ND	0.0511	mg/L	0.202	102	(0%-20%)			
Lithium	0.0500	U	ND	0.0544	mg/L	3.58	108	(0%-20%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 608803

Page 8 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Magnesium	2.00	22.7		24.8	mg/L	1.54	N/A	(0%-20%)	PRB	02/04/23	21:52
Manganese	0.0500	1.71		1.78	mg/L	0.202	N/A	(0%-20%)		02/04/23	19:50
Molybdenum	0.0500	J	0.000920	0.0556	mg/L	0.248	109	(0%-20%)		02/04/23	21:52
Potassium	2.00	4.59		6.62	mg/L	1.84	102	(0%-20%)			
Selenium	0.0500	U	ND	0.0512	mg/L	2.14	102	(0%-20%)			
Sodium	2.00	17.8		20.0	mg/L	1.95	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0511	mg/L	1.89	102	(0%-20%)			
QC1205306366 608803001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/04/23	22:00
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium		29.3		5.91	ug/L	.922		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron		72.3		16.6	ug/L	15.1		(0%-20%)		02/04/23	19:53
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/04/23	22:00
Calcium		2880		565	ug/L	1.98		(0%-20%)		02/04/23	19:53
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/04/23	22:00

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## QC Summary

Workorder: 608803

Page 9 of 13

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2375324										
Cobalt		3.20	J	0.661	ug/L	3.25		(0%-20%)	PRB	02/04/23	22:00
Iron		453	J	92.5	ug/L	2.09		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		22700		4780	ug/L	5.34		(0%-20%)			
Manganese		85.3		16.3	ug/L	4.25		(0%-20%)		02/04/23	19:53
Molybdenum	J	0.920	J	0.258	ug/L	40.2		(0%-20%)		02/04/23	22:00
Potassium		4590		914	ug/L	.409		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		17800		3620	ug/L	1.62		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2375754										
QC1205307096	608803003	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/31/23	10:21
QC1205307095	LCS										
Mercury		0.00200		0.00211	mg/L		105	(80%-120%)		01/31/23	10:11
QC1205307094	MB										
Mercury			U	ND	mg/L					01/31/23	10:09

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## QC Summary

Workorder: 608803

Page 10 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch 2375754											
QC1205307097	608803003	MS									
Mercury	0.00200	U	ND	0.00180	mg/L		90	(75%-125%)	JP2	01/31/23	10:22
QC1205307098 608803003 SDILT											
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		01/31/23	10:24
<b>Solids Analysis</b>											
Batch 2376741											
QC1205308819 608803009 DUP											
Total Dissolved Solids			693	693	mg/L	0		(0%-5%)	CH6	02/01/23	13:05
QC1205308817 LCS											
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		02/01/23	13:05
QC1205308816 MB											
Total Dissolved Solids			U	ND	mg/L					02/01/23	13:05
Batch 2377347											
QC1205309759 608803013 DUP											
Total Dissolved Solids			2280	2240	mg/L	1.68		(0%-5%)	CH6	02/02/23	14:28
QC1205309760 608969004 DUP											
Total Dissolved Solids			898	882	mg/L	1.8		(0%-5%)		02/02/23	14:28
QC1205309758 LCS											
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/02/23	14:28
QC1205309757 MB											
Total Dissolved Solids			U	ND	mg/L					02/02/23	14:28
<b>Spectrometric Analysis</b>											
Batch 2375859											
QC1205307355 LCS											
Total Sulfide	0.400			0.400	mg/L		99.9	(85%-115%)	HH2	01/31/23	16:57

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## QC Summary

Workorder: 608803

Page 11 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch 2375859											
QC1205307354		MB									
Total Sulfide			U	ND	mg/L				HH2	01/31/23	16:57
QC1205307356	608803001	PS									
Total Sulfide	0.400	U	ND	0.281	mg/L		67.5*	(75%-125%)		01/31/23	16:57
QC1205307357	608803001	PSD									
Total Sulfide	0.400	U	ND	0.290	mg/L	3.05	69.7*	(0%-15%)		01/31/23	16:57
Batch 2376122											
QC1205307836		LCS									
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	HH2	02/02/23	11:42
QC1205307835		MB									
Total Sulfide			U	ND	mg/L					02/02/23	11:42
QC1205307839	608815006	PS									
Total Sulfide	0.400	U	ND	0.367	mg/L		86.7	(75%-125%)		02/02/23	11:47
QC1205307840	608815006	PSD									
Total Sulfide	0.400	U	ND	0.374	mg/L	1.88	88.4	(0%-15%)		02/02/23	11:48
<b>Titration and Ion Analysis</b>											
Batch 2378066											
QC1205311156	608803001	DUP									
Alkalinity, Total as CaCO3			82.8	83.4	mg/L	0.722		(0%-20%)	EK1	02/06/23	13:02
Bicarbonate alkalinity (CaCO3)			82.8	83.4	mg/L	0.722		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205311155	LCS										
Alkalinity, Total as CaCO3	100			103	mg/L		103	(90%-110%)		02/06/23	12:49

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## QC Summary

Workorder: 608803

Page 12 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2378066										
QC1205311157	608803001	MS									
Alkalinity, Total as CaCO3	100	82.8		185	mg/L		102	(80%-120%)	EK1	02/06/23	13:31
<hr/>											
Batch	2378067										
QC1205313003	608803012	DUP									
Alkalinity, Total as CaCO3		6.00		6.20	mg/L	3.28 ^		(+/-4.00)	EK1	02/06/23	14:58
Bicarbonate alkalinity (CaCO3)		6.00		6.20	mg/L	3.28 ^		(+/-4.00)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205311158	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/06/23	14:46
QC1205313004	608803012	MS									
Alkalinity, Total as CaCO3	100	6.00		107	mg/L		101	(80%-120%)		02/06/23	15:03

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria



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## QC Summary

Workorder: 608803

Page 13 of 13

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
NJ											
Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier											
E											
General Chemistry--Concentration of the target analyte exceeds the instrument calibration range											
Q											
One or more quality control criteria have not been met. Refer to the applicable narrative or DER.											
FB											
Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies											
N1											
See case narrative											
Y											
Other specific qualifiers were required to properly define the results. Consult case narrative.											
R											
Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.											
B											
The target analyte was detected in the associated blank.											
e											
5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes											
J											
See case narrative for an explanation											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: February 24, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 609212

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2377739										
QC1205310455	609211001	DUP									
Chloride		7.41		7.44	mg/L	0.473		(0%-20%)	HXC1	02/02/23	19:53
Fluoride		0.227		0.225	mg/L	0.929	^	(+/-0.100)			
Nitrate-N		0.662		0.656	mg/L	0.987	^	(+/-0.500)		02/02/23	23:52
Sulfate		160		171	mg/L	6.74		(0%-20%)		02/02/23	22:23
QC1205310454	LCS										
Chloride	5.00			4.84	mg/L			96.9 (90%-110%)		02/02/23	19:23
Fluoride	2.50			2.62	mg/L			105 (90%-110%)			
Nitrate-N	2.50			2.49	mg/L			99.5 (90%-110%)			
Sulfate	10.0			10.1	mg/L			101 (90%-110%)			
QC1205310453	MB										
Chloride			U	ND	mg/L					02/02/23	18:54
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205310456	609211001	PS									
Chloride	5.00	7.41		13.1	mg/L			114* (90%-110%)		02/02/23	20:23

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## QC Summary

Workorder: 609212

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2377739										
Fluoride	2.50	0.227		2.77	mg/L		102	(90%-110%)	HXC1	02/02/23	20:23
Nitrate-N	2.50	0.132		2.52	mg/L		95.7	(90%-110%)		02/03/23	00:22
Sulfate	10.0	8.01		18.7	mg/L		107	(90%-110%)		02/02/23	22:52
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
QC1205310468	LCS										
Antimony	0.0500			0.0503	mg/L		101	(80%-120%)	BAJ	02/05/23	17:48
Arsenic	0.0500			0.0511	mg/L		102	(80%-120%)			
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)			
Beryllium	0.0500			0.0583	mg/L		117	(80%-120%)		02/06/23	16:17
Boron	0.100			0.111	mg/L		111	(80%-120%)			
Cadmium	0.0500			0.0523	mg/L		105	(80%-120%)		02/05/23	17:48
Calcium	2.00			2.24	mg/L		112	(80%-120%)		02/06/23	16:17
Chromium	0.0500			0.0509	mg/L		102	(80%-120%)		02/05/23	17:48
Cobalt	0.0500			0.0505	mg/L		101	(80%-120%)			
Iron	2.00			1.95	mg/L		97.3	(80%-120%)			
Lead	0.0500			0.0515	mg/L		103	(80%-120%)			

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## QC Summary

Workorder: 609212

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Lithium	0.0500			0.0565	mg/L		113	(80%-120%)	BAJ	02/05/23	17:48
Magnesium	2.00			2.02	mg/L		101	(80%-120%)			
Manganese	0.0500			0.0504	mg/L		101	(80%-120%)			
Molybdenum	0.0500			0.0510	mg/L		102	(80%-120%)			
Potassium	2.00			1.84	mg/L		91.9	(80%-120%)			
Selenium	0.0500			0.0520	mg/L		104	(80%-120%)			
Sodium	2.00			2.29	mg/L		114	(80%-120%)			
Thallium	0.0500			0.0512	mg/L		102	(80%-120%)			
QC1205310467	MB										
Antimony			U	ND	mg/L					02/05/23	17:44
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/06/23	16:15
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/05/23	17:44
Calcium			U	ND	mg/L					02/06/23	16:15

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## QC Summary

Workorder: 609212

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Chromium			U	ND	mg/L				BAJ	02/05/23	17:44
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205310469 609211001 MS											
Antimony	0.0500	0.0125		0.0618	mg/L		98.5	(75%-125%)		02/05/23	17:55
Arsenic	0.0500	0.374		0.429	mg/L		N/A	(75%-125%)			
Barium	0.0500	0.164		0.215	mg/L		101	(75%-125%)			

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## QC Summary

Workorder: 609212

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Beryllium	0.0500	U	ND	0.0564	mg/L		113	(75%-125%)	BAJ	02/06/23	16:39
Boron	0.100		1.52	1.74	mg/L		N/A	(75%-125%)		02/06/23	16:21
Cadmium	0.0500	U	ND	0.0500	mg/L		99.8	(75%-125%)		02/05/23	17:55
Calcium	2.00		168	185	mg/L		N/A	(75%-125%)		02/06/23	16:21
Chromium	0.0500	U	ND	0.0492	mg/L		96.9	(75%-125%)		02/05/23	17:55
Cobalt	0.0500		0.00123	0.0493	mg/L		96.1	(75%-125%)			
Iron	2.00		1.08	3.08	mg/L		100	(75%-125%)			
Lead	0.0500	U	ND	0.0473	mg/L		94.2	(75%-125%)			
Lithium	0.0500		0.305	0.370	mg/L		N/A	(75%-125%)			
Magnesium	2.00		17.7	20.1	mg/L		N/A	(75%-125%)			
Manganese	0.0500		0.0654	0.116	mg/L		101	(75%-125%)			
Molybdenum	0.0500		0.0781	0.133	mg/L		109	(75%-125%)			
Potassium	2.00		12.0	14.5	mg/L		N/A	(75%-125%)			
Selenium	0.0500		0.0305	0.0816	mg/L		102	(75%-125%)			
Sodium	2.00		20.4	23.4	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 609212

Page 6 of 11

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Thallium	0.0500	J	0.00144	0.0497	mg/L		96.6	(75%-125%)	BAJ	02/05/23	17:55
QC1205310470 609211001 MSD											
Antimony	0.0500		0.0125	0.0620	mg/L	0.401	99	(0%-20%)		02/05/23	17:58
Arsenic	0.0500		0.374	0.431	mg/L	0.431	N/A	(0%-20%)			
Barium	0.0500		0.164	0.214	mg/L	0.484	99.1	(0%-20%)			
Beryllium	0.0500	U	ND	0.0549	mg/L	2.62	110	(0%-20%)		02/06/23	16:41
Boron	0.100		1.52	1.75	mg/L	0.244	N/A	(0%-20%)		02/06/23	16:23
Cadmium	0.0500	U	ND	0.0500	mg/L	0.088	99.7	(0%-20%)		02/05/23	17:58
Calcium	2.00		168	186	mg/L	0.00965	N/A	(0%-20%)		02/06/23	16:23
Chromium	0.0500	U	ND	0.0496	mg/L	0.931	97.8	(0%-20%)		02/05/23	17:58
Cobalt	0.0500		0.00123	0.0491	mg/L	0.396	95.7	(0%-20%)			
Iron	2.00		1.08	3.05	mg/L	1.05	98.6	(0%-20%)			
Lead	0.0500	U	ND	0.0477	mg/L	0.895	95.1	(0%-20%)			
Lithium	0.0500		0.305	0.375	mg/L	1.54	N/A	(0%-20%)			
Magnesium	2.00		17.7	19.9	mg/L	0.818	N/A	(0%-20%)			
Manganese	0.0500		0.0654	0.114	mg/L	1.61	97.5	(0%-20%)			

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## QC Summary

Workorder: 609212

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Molybdenum	0.0500	0.0781		0.132	mg/L	0.151	109	(0%-20%)	BAJ	02/05/23	17:58
Potassium	2.00	12.0		14.4	mg/L	0.568	N/A	(0%-20%)			
Selenium	0.0500	0.0305		0.0831	mg/L	1.78	105	(0%-20%)			
Sodium	2.00	20.4		22.9	mg/L	2.07	N/A	(0%-20%)			
Thallium	0.0500	J 0.00144		0.0500	mg/L	0.573	97.2	(0%-20%)			
QC1205310471 609211001 SDILT											
Antimony		12.5	J	2.68	ug/L	7.07		(0%-20%)		02/05/23	18:06
Arsenic		374		71.3	ug/L	4.57		(0%-20%)			
Barium		164		32.3	ug/L	1.58		(0%-20%)			
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/06/23	16:45
Boron		75.9		17.1	ug/L	12.5		(0%-20%)		02/06/23	16:25
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/05/23	18:06
Calcium		8410		1740	ug/L	3.47		(0%-20%)		02/06/23	16:25
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/05/23	18:06
Cobalt		1.23	U	ND	ug/L	N/A		(0%-20%)			
Iron		1080		226	ug/L	4.69		(0%-20%)			



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## QC Summary

Workorder: 609212

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2377747										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	02/05/23	18:06
Lithium		305		58.2	ug/L	4.46		(0%-20%)			
Magnesium		17700		3080	ug/L	12.8		(0%-20%)			
Manganese		65.4		13.6	ug/L	4.21		(0%-20%)			
Molybdenum		78.1		14.8	ug/L	5.25		(0%-20%)			
Potassium		12000		2170	ug/L	9.63		(0%-20%)			
Selenium		30.5		6.13	ug/L	.502		(0%-20%)			
Sodium		20400		3970	ug/L	2.98		(0%-20%)			
Thallium	J	1.44	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2378878										
QC1205312143	609438010 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	02/07/23	12:21
QC1205312142	LCS										
Mercury		0.00200		0.00209	mg/L		105	(80%-120%)		02/07/23	12:01
QC1205312141	MB										
Mercury			U	ND	mg/L					02/07/23	12:00
QC1205312144	609438010 MS										
Mercury		0.00200	U	ND	0.00200	mg/L		100	(75%-125%)	02/07/23	12:22

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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 609212

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch 2378878											
QC1205312145	609438010	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	02/07/23	12:24
<b>Solids Analysis</b>											
Batch 2379677											
QC1205313479	609435002	DUP									
Total Dissolved Solids		857		820	mg/L	4.37		(0%-5%)	CH6	02/08/23	11:14
QC1205314103	609211001	DUP									
Total Dissolved Solids		597		602	mg/L	0.834		(0%-5%)		02/08/23	11:14
QC1205313478	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/08/23	11:14
QC1205313477	MB										
Total Dissolved Solids			U	ND	mg/L					02/08/23	11:14
<b>Spectrometric Analysis</b>											
Batch 2377896											
QC1205310860	LCS										
Total Sulfide	0.400			0.408	mg/L		102	(85%-115%)	HH2	02/06/23	15:53
QC1205310859	MB										
Total Sulfide			U	ND	mg/L					02/06/23	15:53
QC1205310863	609152001	PS									
Total Sulfide	0.400	U	ND	0.183	mg/L		45.7*	(75%-125%)		02/06/23	16:02
QC1205310864	609152001	PSD									
Total Sulfide	0.400	U	ND	0.188	mg/L	2.89	47*	(0%-15%)		02/06/23	16:03

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## QC Summary

Workorder: 609212

Page 10 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2382489										
QC1205318636	609152001	DUP									
Alkalinity, Total as CaCO3		143		143	mg/L	0.14		(0%-20%)	EK1	02/13/23	10:31
Bicarbonate alkalinity (CaCO3)		143		143	mg/L	0.14		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205319654	609212001	DUP									
Alkalinity, Total as CaCO3		117		118	mg/L	0.17		(0%-20%)		02/13/23	11:40
Bicarbonate alkalinity (CaCO3)		117		118	mg/L	0.17		(0%-20%)			
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A					
QC1205318635	LCS										
Alkalinity, Total as CaCO3	100			105	mg/L		105	(90%-110%)		02/13/23	10:24
QC1205318637	609152001	MS									
Alkalinity, Total as CaCO3	100	143		247	mg/L		104	(80%-120%)		02/13/23	10:34
QC1205319655	609212001	MS									
Alkalinity, Total as CaCO3	100	117		222	mg/L		105	(80%-120%)		02/13/23	11:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded

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## QC Summary

Workorder: 609212

Page 11 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: February 24, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608969

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2376273										
QC1205308090	608969009	DUP									
Chloride		40.7		40.7	mg/L	0.0246		(0%-20%)	JLD1	02/01/23	02:32
Fluoride	J	0.0767	J	0.0736	mg/L	4.13	^	(+/-0.100)		01/31/23	17:47
Nitrate-N		1.01		1.10	mg/L	7.77		(0%-20%)			
Sulfate		2800		2900	mg/L	3.59		(0%-20%)		02/01/23	04:05
QC1205308089	LCS										
Chloride	5.00			4.95	mg/L			99.1 (90%-110%)		01/31/23	10:32
Fluoride	2.50			2.48	mg/L			99.2 (90%-110%)			
Nitrate-N	2.50			2.45	mg/L			98 (90%-110%)			
Sulfate	10.0			9.94	mg/L			99.4 (90%-110%)			
QC1205308088	MB										
Chloride			U	ND	mg/L					01/31/23	10:02
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205308091	608969009	PS									
Chloride	5.00	4.07		9.53	mg/L			109 (90%-110%)		02/01/23	03:03

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## QC Summary

Workorder: 608969

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2376273										
Fluoride	2.50	J	0.0767	2.40	mg/L		93	(90%-110%)	JLD1	01/31/23	18:18
Nitrate-N	2.50		1.01	3.67	mg/L		106	(90%-110%)			
Sulfate	10.0		5.60	15.6	mg/L		100	(90%-110%)		02/01/23	04:35
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
QC1205308094	LCS										
Antimony	0.0500			0.0500	mg/L		100	(80%-120%)	SKJ	02/09/23	19:49
Arsenic	0.0500			0.0522	mg/L		104	(80%-120%)		02/10/23	15:46
Barium	0.0500			0.0489	mg/L		97.9	(80%-120%)		02/09/23	19:49
Beryllium	0.0500			0.0574	mg/L		115	(80%-120%)		02/10/23	15:46
Boron	0.100			0.102	mg/L		102	(80%-120%)	PRB	02/14/23	09:51
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)	SKJ	02/09/23	19:49
Calcium	2.00			2.18	mg/L		109	(80%-120%)			
Chromium	0.0500			0.0503	mg/L		101	(80%-120%)			
Cobalt	0.0500			0.0495	mg/L		98.9	(80%-120%)			
Iron	2.00			2.03	mg/L		101	(80%-120%)			
Lead	0.0500			0.0506	mg/L		101	(80%-120%)			

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## QC Summary

Workorder: 608969

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Lithium	0.0500			0.0576	mg/L		115	(80%-120%)	SKJ	02/09/23	19:49
Magnesium	2.00			2.39	mg/L		119	(80%-120%)		02/14/23	08:04
Manganese	0.0500			0.0501	mg/L		100	(80%-120%)		02/09/23	19:49
Molybdenum	0.0500			0.0526	mg/L		105	(80%-120%)			
Potassium	2.00			2.12	mg/L		106	(80%-120%)		02/10/23	15:46
Selenium	0.0500			0.0531	mg/L		106	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)		02/09/23	19:49
Thallium	0.0500			0.0500	mg/L		100	(80%-120%)			
QC1205308093	MB										
Antimony			U	ND	mg/L					02/09/23	19:45
Arsenic			U	ND	mg/L					02/10/23	15:43
Barium			U	ND	mg/L					02/09/23	19:45
Beryllium			J	0.000207	mg/L					02/10/23	15:43
Boron			U	ND	mg/L				PRB	02/14/23	09:49
Cadmium			U	ND	mg/L				SKJ	02/09/23	19:45
Calcium			U	ND	mg/L						

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## QC Summary

Workorder: 608969

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Chromium			U	ND	mg/L				SKJ	02/09/23	19:45
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					02/14/23	07:53
Manganese			U	ND	mg/L					02/09/23	19:45
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					02/10/23	15:43
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L					02/09/23	19:45
Thallium			U	ND	mg/L						
QC1205308095 608969001 MS											
Antimony	0.0500	U	ND	0.0482	mg/L		95.8	(75%-125%)		02/09/23	19:56
Arsenic	0.0500		0.00565	0.0563	mg/L		101	(75%-125%)		02/10/23	17:26
Barium	0.0500		0.0284	0.0794	mg/L		102	(75%-125%)		02/09/23	19:56



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## QC Summary

Workorder: 608969

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Beryllium	0.0500	J	0.000318	0.0515	mg/L		102	(75%-125%)	SKJ	02/10/23	17:26
Boron	0.100		0.128	0.219	mg/L		90.5	(75%-125%)	PRB	02/14/23	09:54
Cadmium	0.0500	U	ND	0.0482	mg/L		96.1	(75%-125%)	SKJ	02/10/23	17:26
Calcium	2.00		217	219	mg/L		N/A	(75%-125%)		02/10/23	16:40
Chromium	0.0500	U	ND	0.0510	mg/L		100	(75%-125%)		02/09/23	19:56
Cobalt	0.0500		0.345	0.404	mg/L		N/A	(75%-125%)			
Iron	2.00		17.8	20.5	mg/L		N/A	(75%-125%)			
Lead	0.0500	U	ND	0.0456	mg/L		90.8	(75%-125%)			
Lithium	0.0500		0.0131	0.0720	mg/L		118	(75%-125%)			
Magnesium	2.00		303	306	mg/L		N/A	(75%-125%)		02/14/23	08:16
Manganese	0.0500		109	115	mg/L		N/A	(75%-125%)		02/10/23	15:52
Molybdenum	0.0500	J	0.000675	0.0560	mg/L		111	(75%-125%)		02/09/23	19:56
Potassium	2.00		10.8	13.2	mg/L		N/A	(75%-125%)		02/10/23	17:26
Selenium	0.0500		0.00817	0.0623	mg/L		108	(75%-125%)			
Sodium	2.00		62.9	64.2	mg/L		N/A	(75%-125%)		02/10/23	16:40

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## QC Summary

Workorder: 608969

Page 6 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Thallium	0.0500	U	ND	0.0467	mg/L		93.2	(75%-125%)	SKJ	02/09/23	19:56
QC1205308096 608969001 MSD											
Antimony	0.0500	U	ND	0.0491	mg/L	1.71	97.5	(0%-20%)		02/09/23	19:59
Arsenic	0.0500		0.00565	0.0587	mg/L	4.11	106	(0%-20%)		02/10/23	17:29
Barium	0.0500		0.0284	0.0805	mg/L	1.36	104	(0%-20%)		02/09/23	19:59
Beryllium	0.0500	J	0.000318	0.0527	mg/L	2.33	105	(0%-20%)		02/10/23	17:29
Boron	0.100		0.128	0.222	mg/L	1.59	94	(0%-20%)	PRB	02/14/23	09:56
Cadmium	0.0500	U	ND	0.0500	mg/L	3.75	99.8	(0%-20%)	SKJ	02/10/23	17:29
Calcium	2.00		217	231	mg/L	5.2	N/A	(0%-20%)		02/10/23	16:43
Chromium	0.0500	U	ND	0.0516	mg/L	1.2	102	(0%-20%)		02/09/23	19:59
Cobalt	0.0500		0.345	0.409	mg/L	1.22	N/A	(0%-20%)			
Iron	2.00		17.8	20.6	mg/L	0.871	N/A	(0%-20%)			
Lead	0.0500	U	ND	0.0464	mg/L	1.58	92.3	(0%-20%)			
Lithium	0.0500		0.0131	0.0716	mg/L	0.614	117	(0%-20%)			
Magnesium	2.00		303	323	mg/L	5.48	N/A	(0%-20%)		02/14/23	08:18
Manganese	0.0500		109	115	mg/L	0.68	N/A	(0%-20%)		02/10/23	15:54

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## QC Summary

Workorder: 608969

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Molybdenum	0.0500	J	0.000675	0.0575	mg/L	2.65	114	(0%-20%)	SKJ	02/09/23	19:59
Potassium	2.00		10.8	13.4	mg/L	1.65	N/A	(0%-20%)		02/10/23	17:29
Selenium	0.0500		0.00817	0.0629	mg/L	0.902	109	(0%-20%)			
Sodium	2.00		62.9	67.8	mg/L	5.49	N/A	(0%-20%)		02/10/23	16:43
Thallium	0.0500	U	ND	0.0472	mg/L	1.06	94.2	(0%-20%)		02/09/23	19:59
QC1205308097 608969001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/09/23	20:06
Arsenic			5.65	U	ND	ug/L	N/A	(0%-20%)		02/10/23	17:34
Barium			28.4		5.78	ug/L	1.56	(0%-20%)		02/09/23	20:06
Beryllium		J	0.318	U	ND	ug/L	N/A	(0%-20%)		02/10/23	17:34
Boron			128		33.5	ug/L	30.7	(0%-20%)	PRB	02/14/23	10:00
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)	SKJ	02/10/23	17:34
Calcium			21700	E	3280	ug/L	24.4*	(0%-20%)		02/10/23	16:46
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/09/23	20:06
Cobalt			345		72.5	ug/L	5.03	(0%-20%)			
Iron			17800		3740	ug/L	4.91	(0%-20%)			

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## QC Summary

Workorder: 608969

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2376276										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/09/23	20:06
Lithium		13.1	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		30300	E	4690	ug/L	22.5*		(0%-20%)		02/14/23	08:19
Manganese		218		43.8	ug/L	.485		(0%-20%)		02/10/23	15:57
Molybdenum	J	0.675	U	ND	ug/L	N/A		(0%-20%)		02/09/23	20:06
Potassium		10800		2010	ug/L	7.21		(0%-20%)		02/10/23	17:34
Selenium		8.17	J	1.77	ug/L	8.24		(0%-20%)			
Sodium		6290	E	940	ug/L	25.2*		(0%-20%)		02/10/23	16:46
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/09/23	20:06
<b>Metals Analysis-Mercury</b>											
Batch	2376750										
QC1205308832	609006008	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	02/02/23	10:07
QC1205308831	LCS										
Mercury	0.00200			0.00206	mg/L		103	(80%-120%)		02/02/23	09:38
QC1205308830	MB										
Mercury			U	ND	mg/L					02/02/23	09:36
QC1205308833	609006008	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		105	(75%-125%)		02/02/23	10:08

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## QC Summary

Workorder: 608969

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch 2376750											
QC1205308834	609006008	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	02/02/23	10:10
<b>Solids Analysis</b>											
Batch 2377347											
QC1205309759	608803013	DUP									
Total Dissolved Solids		2280		2240	mg/L	1.68		(0%-5%)	CH6	02/02/23	14:28
QC1205309760	608969004	DUP									
Total Dissolved Solids		898		882	mg/L	1.8		(0%-5%)		02/02/23	14:28
QC1205309758	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		02/02/23	14:28
QC1205309757	MB										
Total Dissolved Solids			U	ND	mg/L					02/02/23	14:28
<b>Spectrometric Analysis</b>											
Batch 2376122											
QC1205307836	LCS										
Total Sulfide	0.400			0.396	mg/L		99	(85%-115%)	HH2	02/02/23	11:42
QC1205307835	MB										
Total Sulfide			U	ND	mg/L					02/02/23	11:42
QC1205307839	608815006	PS									
Total Sulfide	0.400	U	ND	0.367	mg/L		86.7	(75%-125%)		02/02/23	11:47
QC1205307840	608815006	PSD									
Total Sulfide	0.400	U	ND	0.374	mg/L	1.88	88.4	(0%-15%)		02/02/23	11:48
Batch 2377896											
QC1205310860	LCS										
Total Sulfide	0.400			0.408	mg/L		102	(85%-115%)	HH2	02/06/23	15:53

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## QC Summary

Workorder: **608969**

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch 2377896											
QC1205310859	MB										
Total Sulfide			U	ND	mg/L				HH2	02/06/23	15:53
QC1205310863	609152001	PS									
Total Sulfide	0.400	U	ND	0.183	mg/L		45.7*	(75%-125%)		02/06/23	16:02
QC1205310864	609152001	PSD									
Total Sulfide	0.400	U	ND	0.188	mg/L	2.89	47*	(0%-15%)		02/06/23	16:03
<b>Titration and Ion Analysis</b>											
Batch 2382211											
QC1205317833	608969001	DUP									
Alkalinity, Total as CaCO3			62.4	62.8	mg/L	0.639		(0%-20%)	EK1	02/10/23	15:15
Bicarbonate alkalinity (CaCO3)			62.4	62.8	mg/L	0.639		(0%-20%)			
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1205317832	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/10/23	15:10
QC1205317834	608969001	MS									
Alkalinity, Total as CaCO3	100		62.4	170	mg/L		107	(80%-120%)		02/10/23	15:18

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded

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## QC Summary

Workorder: 608969

Page 11 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: February 24, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608602

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374768										
QC1205305382	608602001	DUP									
Chloride		5.84		5.87	mg/L	0.538		(0%-20%)	HXC1	01/26/23	21:55
Fluoride		0.130		0.180	mg/L	31.8	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				01/26/23	23:25
Sulfate		41.0		41.1	mg/L	0.217		(0%-20%)			
QC1205305381	LCS										
Chloride	5.00			4.83	mg/L			96.6 (90%-110%)		01/26/23	21:25
Fluoride	2.50			2.61	mg/L			104 (90%-110%)			
Nitrate-N	2.50			2.49	mg/L			99.4 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205305380	MB										
Chloride			U	ND	mg/L					01/26/23	19:56
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205305383	608602001	PS									
Chloride	5.00	5.84		11.6	mg/L			115* (90%-110%)		01/26/23	22:25



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 608602

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374768										
Fluoride	2.50	0.130		2.78	mg/L		106	(90%-110%)	HXC1	01/26/23	22:25
Nitrate-N	2.50	U	ND	2.47	mg/L		98.7	(90%-110%)		01/26/23	23:55
Sulfate	10.0	8.20		18.7	mg/L		105	(90%-110%)			
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
QC1205305393	LCS										
Antimony	0.0500			0.0526	mg/L		105	(80%-120%)	SKJ	02/08/23	17:36
Arsenic	0.0500			0.0527	mg/L		105	(80%-120%)			
Barium	0.0500			0.0508	mg/L		102	(80%-120%)			
Beryllium	0.0500			0.0597	mg/L		119	(80%-120%)		02/07/23	18:32
Boron	0.100			0.119	mg/L		119	(80%-120%)		02/08/23	17:36
Cadmium	0.0500			0.0538	mg/L		108	(80%-120%)			
Calcium	2.00			2.20	mg/L		110	(80%-120%)			
Chromium	0.0500			0.0522	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0514	mg/L		103	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0526	mg/L		105	(80%-120%)			

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## *QC Summary*

Workorder: 608602

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Lithium	0.0500			0.0571	mg/L		114	(80%-120%)	SKJ	02/07/23	18:32
Magnesium	2.00			2.24	mg/L		112	(80%-120%)		02/08/23	17:36
Manganese	0.0500			0.0518	mg/L		104	(80%-120%)			
Molybdenum	0.0500			0.0547	mg/L		109	(80%-120%)			
Potassium	2.00			2.06	mg/L		103	(80%-120%)			
Selenium	0.0500			0.0527	mg/L		105	(80%-120%)			
Sodium	2.00			2.24	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0516	mg/L		103	(80%-120%)			
QC1205305392	MB										
Antimony			U	ND	mg/L					02/08/23	17:32
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					02/07/23	18:29
Boron			U	ND	mg/L					02/08/23	17:32
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						

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## QC Summary

Workorder: 608602

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Chromium			U	ND	mg/L				SKJ	02/08/23	17:32
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L					02/07/23	18:29
Magnesium			U	ND	mg/L					02/08/23	17:32
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205305394 608602001 MS											
Antimony	0.0500	U	ND	0.0535	mg/L		107	(75%-125%)		02/08/23	19:13
Arsenic	0.0500	J	0.00221	0.0524	mg/L		100	(75%-125%)			
Barium	0.0500		0.0498	0.0988	mg/L		97.9	(75%-125%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 608602

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Beryllium	0.0500	U	ND	0.0601	mg/L		120	(75%-125%)	SKJ	02/07/23	18:40
Boron	0.100		1.47	1.54	mg/L		N/A	(75%-125%)		02/08/23	17:43
Cadmium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)		02/08/23	19:13
Calcium	2.00		25.1	27.8	mg/L		N/A	(75%-125%)			
Chromium	0.0500	U	ND	0.0520	mg/L		103	(75%-125%)			
Cobalt	0.0500	U	ND	0.0513	mg/L		102	(75%-125%)			
Iron	2.00	J	0.0504	2.04	mg/L		99.6	(75%-125%)			
Lead	0.0500	U	ND	0.0518	mg/L		104	(75%-125%)			
Lithium	0.0500	J	0.00728	0.0653	mg/L		116	(75%-125%)		02/07/23	18:40
Magnesium	2.00		10.8	13.1	mg/L		N/A	(75%-125%)		02/08/23	19:13
Manganese	0.0500		0.396	0.459	mg/L		N/A	(75%-125%)		02/09/23	11:05
Molybdenum	0.0500	U	ND	0.0554	mg/L		111	(75%-125%)		02/08/23	19:13
Potassium	2.00		2.95	5.22	mg/L		114	(75%-125%)			
Selenium	0.0500	U	ND	0.0492	mg/L		98.3	(75%-125%)			
Sodium	2.00		12.5	14.9	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 608602

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Thallium	0.0500	U	ND	0.0513	mg/L		103	(75%-125%)	SKJ	02/08/23	19:13
QC1205305395 608602001 MSD											
Antimony	0.0500	U	ND	0.0526	mg/L	1.66	105	(0%-20%)		02/08/23	19:17
Arsenic	0.0500	J	0.00221	0.0525	mg/L	0.168	101	(0%-20%)			
Barium	0.0500		0.0498	0.0968	mg/L	2	94	(0%-20%)			
Beryllium	0.0500	U	ND	0.0617	mg/L	2.74	123	(0%-20%)		02/07/23	18:43
Boron	0.100		1.47	1.61	mg/L	4.7	N/A	(0%-20%)		02/08/23	17:47
Cadmium	0.0500	U	ND	0.0544	mg/L	2.71	109	(0%-20%)		02/08/23	19:17
Calcium	2.00		25.1	27.2	mg/L	2.09	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0516	mg/L	0.689	102	(0%-20%)			
Cobalt	0.0500	U	ND	0.0501	mg/L	2.39	99.8	(0%-20%)			
Iron	2.00	J	0.0504	2.01	mg/L	1.41	98.2	(0%-20%)			
Lead	0.0500	U	ND	0.0502	mg/L	3.16	100	(0%-20%)			
Lithium	0.0500	J	0.00728	0.0658	mg/L	0.747	117	(0%-20%)		02/07/23	18:43
Magnesium	2.00		10.8	13.2	mg/L	0.43	N/A	(0%-20%)		02/08/23	19:17
Manganese	0.0500		0.396	0.444	mg/L	3.41	N/A	(0%-20%)		02/09/23	11:07

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## QC Summary

Workorder: 608602

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Molybdenum	0.0500	U	ND	0.0559	mg/L	0.82	112	(0%-20%)	SKJ	02/08/23	19:17
Potassium	2.00		2.95	5.12	mg/L	1.87	109	(0%-20%)			
Selenium	0.0500	U	ND	0.0498	mg/L	1.27	99.6	(0%-20%)			
Sodium	2.00		12.5	14.4	mg/L	3.52	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0494	mg/L	3.8	98.8	(0%-20%)			
QC1205305396 608602001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/08/23	19:24
Arsenic		J	2.21	U	ND	ug/L	N/A	(0%-20%)			
Barium			49.8		9.94	ug/L	.173	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/07/23	18:50
Boron			147		37.0	ug/L	26.2	(0%-20%)		02/08/23	17:50
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/08/23	19:24
Calcium			25100		5080	ug/L	1.08	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	50.4	U	ND	ug/L	N/A	(0%-20%)			

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 608602

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374786										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/08/23	19:24
Lithium	J	7.28	U	ND	ug/L	N/A		(0%-20%)		02/07/23	18:50
Magnesium		10800		2170	ug/L	.232		(0%-20%)		02/08/23	19:24
Manganese		396		79.8	ug/L	.655		(0%-20%)		02/09/23	11:11
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/08/23	19:24
Potassium		2950		585	ug/L	.814		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		12500		2450	ug/L	1.88		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2375028										
QC1205305820	608516009	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/30/23	12:15
QC1205305819	LCS										
Mercury	0.00200			0.00188	mg/L		93.8	(80%-120%)		01/30/23	12:07
QC1205305818	MB										
Mercury			U	ND	mg/L					01/30/23	12:05
QC1205305821	608516009	MS									
Mercury	0.00200	U	ND	0.00184	mg/L		91.9	(75%-125%)		01/30/23	12:17

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 608602

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2375028										
QC1205305822	608516009	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/30/23	12:19
<b>Solids Analysis</b>											
Batch	2376740										
QC1205308815	608602001	DUP									
Total Dissolved Solids		156		154	mg/L	1.29		(0%-5%)	CH6	02/01/23	11:35
QC1205308813	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		02/01/23	11:35
QC1205308812	MB										
Total Dissolved Solids			U	ND	mg/L					02/01/23	11:35
<b>Spectrometric Analysis</b>											
Batch	2374524										
QC1205304986	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:42
QC1205304985	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:42
QC1205305514	608602006	PS									
Total Sulfide	0.400	U	ND	0.438	mg/L		109	(75%-125%)		01/30/23	15:42
QC1205305515	608602006	PSD									
Total Sulfide	0.400	U	ND	0.428	mg/L	2.32	107	(0%-15%)		01/30/23	15:42
Batch	2375142										
QC1205306028	LCS										
Total Sulfide	0.400			0.413	mg/L		103	(85%-115%)	JW2	01/30/23	15:41
QC1205306027	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:41



# GEL LABORATORIES LLC

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## QC Summary

Workorder: **608602**

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Spectrometric Analysis</b>											
Batch	2375142										
QC1205306031	608614004	PS									
Total Sulfide	0.400	U	ND	0.392	mg/L		96.8	(75%-125%)	JW2	01/30/23	15:42
QC1205306032	608614004	PSD									
Total Sulfide	0.400	U	ND	0.382	mg/L	2.6	94.3	(0%-15%)		01/30/23	15:42
<b>Titration and Ion Analysis</b>											
Batch	2378173										
QC1205311290	608567004	DUP									
Alkalinity, Total as CaCO3			82.4	82.6	mg/L	0.242		(0%-20%)	EK1	02/06/23	10:43
Bicarbonate alkalinity (CaCO3)			82.4	82.6	mg/L	0.242		(0%-20%)			
Carbonate alkalinity (CaCO3)			0.000	U	ND	mg/L	0 ^	(+/-4.00)			
QC1205311289	LCS										
Alkalinity, Total as CaCO3	100			104	mg/L		104	(90%-110%)		02/06/23	10:34
QC1205311291	608567004	MS									
Alkalinity, Total as CaCO3	100		82.4	185	mg/L		103	(80%-120%)		02/06/23	11:06

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 608602

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: February 27, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 608413

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374002										
QC1205304359	608413001	DUP									
Chloride		3.79		3.79	mg/L	0.124		(0%-20%)	HXC1	01/25/23	19:29
Fluoride	J	0.0926	J	0.0925	mg/L	0.108	^	(+/-0.100)			
Nitrate-N		0.945		0.920	mg/L	2.68	^	(+/-0.500)		01/25/23	23:05
Sulfate		0.628		0.612	mg/L	2.71	^	(+/-0.400)		01/25/23	19:29
QC1205304358	LCS										
Chloride	5.00			4.87	mg/L			97.3 (90%-110%)		01/25/23	20:31
Fluoride	2.50			2.53	mg/L			101 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.76	mg/L			97.6 (90%-110%)			
QC1205304357	MB										
Chloride			U	ND	mg/L					01/25/23	21:02
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205304360	608413001	PS									
Chloride	5.00	3.79		9.31	mg/L			110 (90%-110%)		01/25/23	20:00

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## QC Summary

Workorder: 608413

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2374002										
Fluoride	2.50	J	0.0926	2.68	mg/L		104	(90%-110%)	HXC1	01/25/23	20:00
Nitrate-N	2.50		0.189	2.65	mg/L		98.2	(90%-110%)		01/25/23	23:36
Sulfate	10.0		0.628	10.6	mg/L		99.5	(90%-110%)		01/25/23	20:00
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
QC1205304629	LCS										
Antimony	0.0500			0.0512	mg/L		102	(80%-120%)	SKJ	02/01/23	18:21
Arsenic	0.0500			0.0540	mg/L		108	(80%-120%)		02/03/23	14:21
Barium	0.0500			0.0494	mg/L		98.9	(80%-120%)		02/01/23	18:21
Beryllium	0.0500			0.0599	mg/L		120	(80%-120%)		02/03/23	14:21
Boron	0.100			0.113	mg/L		113	(80%-120%)			
Cadmium	0.0500			0.0524	mg/L		105	(80%-120%)		02/01/23	18:21
Calcium	2.00			2.14	mg/L		107	(80%-120%)			
Chromium	0.0500			0.0525	mg/L		105	(80%-120%)			
Cobalt	0.0500			0.0523	mg/L		105	(80%-120%)			
Iron	2.00			2.04	mg/L		102	(80%-120%)			
Lead	0.0500			0.0549	mg/L		110	(80%-120%)		02/03/23	14:21

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## *QC Summary*

Workorder: 608413

Page 3 of 11

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Lithium	0.0500			0.0574	mg/L		115	(80%-120%)	SKJ	02/03/23	14:21
Magnesium	2.00			2.36	mg/L		118	(80%-120%)			
Manganese	0.0500			0.0508	mg/L		102	(80%-120%)		02/01/23	18:21
Molybdenum	0.0500			0.0539	mg/L		108	(80%-120%)		02/03/23	14:21
Potassium	2.00			2.08	mg/L		104	(80%-120%)		02/01/23	18:21
Selenium	0.0500			0.0500	mg/L		100	(80%-120%)			
Sodium	2.00			2.23	mg/L		111	(80%-120%)			
Thallium	0.0500			0.0526	mg/L		105	(80%-120%)			
QC1205304628	MB										
Antimony			U	ND	mg/L					02/01/23	18:18
Arsenic			U	ND	mg/L					02/03/23	14:18
Barium			U	ND	mg/L					02/01/23	18:18
Beryllium			U	ND	mg/L					02/03/23	14:18
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					02/01/23	18:18
Calcium			U	ND	mg/L						

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## QC Summary

Workorder: 608413

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Chromium			U	ND	mg/L				SKJ	02/01/23	18:18
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L					02/03/23	14:18
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L					02/01/23	18:18
Molybdenum			U	ND	mg/L					02/03/23	14:18
Potassium			U	ND	mg/L					02/01/23	18:18
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205304630 608410001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		02/01/23	18:29
Arsenic	0.0500	U	ND	0.0534	mg/L		105	(75%-125%)		02/03/23	15:08
Barium	0.0500		0.0118	0.0604	mg/L		97.3	(75%-125%)		02/01/23	18:29

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## QC Summary

Workorder: 608413

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2374301										
Beryllium	0.0500	U	ND	0.0578	mg/L		115	(75%-125%)	SKJ	02/06/23	16:16
Boron	0.100	U	ND	0.125	mg/L		121	(75%-125%)		02/03/23	15:08
Cadmium	0.0500	U	ND	0.0524	mg/L		105	(75%-125%)		02/01/23	18:29
Calcium	2.00		4.86	7.20	mg/L		117	(75%-125%)			
Chromium	0.0500	J	0.00950	0.0628	mg/L		107	(75%-125%)			
Cobalt	0.0500	J	0.000829	0.0532	mg/L		105	(75%-125%)			
Iron	2.00	J	0.0824	2.11	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0551	mg/L		110	(75%-125%)		02/03/23	15:08
Lithium	0.0500	U	ND	0.0625	mg/L		124	(75%-125%)			
Magnesium	2.00		5.34	7.70	mg/L		118	(75%-125%)			
Manganese	0.0500		0.0348	0.0864	mg/L		103	(75%-125%)		02/01/23	18:29
Molybdenum	0.0500	U	ND	0.0549	mg/L		110	(75%-125%)		02/03/23	15:08
Potassium	2.00		0.432	2.54	mg/L		106	(75%-125%)		02/01/23	18:29
Selenium	0.0500	U	ND	0.0465	mg/L		93.1	(75%-125%)			
Sodium	2.00		3.63	5.85	mg/L		111	(75%-125%)			

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## QC Summary

Workorder: 608413

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Thallium	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	SKJ	02/01/23	18:29
QC1205304631 608410001 MSD											
Antimony	0.0500	U	ND	0.0500	mg/L	3.18	99.4	(0%-20%)		02/01/23	18:32
Arsenic	0.0500	U	ND	0.0541	mg/L	1.27	106	(0%-20%)		02/03/23	15:11
Barium	0.0500		0.0118	0.0587	mg/L	3	93.7	(0%-20%)		02/01/23	18:32
Beryllium	0.0500	U	ND	0.0558	mg/L	3.42	112	(0%-20%)		02/06/23	16:18
Boron	0.100	U	ND	0.124	mg/L	0.226	121	(0%-20%)		02/03/23	15:11
Cadmium	0.0500	U	ND	0.0503	mg/L	4.08	101	(0%-20%)		02/01/23	18:32
Calcium	2.00		4.86	7.13	mg/L	0.991	113	(0%-20%)			
Chromium	0.0500	J	0.00950	0.0614	mg/L	2.16	104	(0%-20%)			
Cobalt	0.0500	J	0.000829	0.0530	mg/L	0.458	104	(0%-20%)			
Iron	2.00	J	0.0824	2.06	mg/L	2.49	99	(0%-20%)			
Lead	0.0500	U	ND	0.0543	mg/L	1.38	109	(0%-20%)		02/03/23	15:11
Lithium	0.0500	U	ND	0.0623	mg/L	0.261	123	(0%-20%)			
Magnesium	2.00		5.34	7.85	mg/L	1.81	125	(0%-20%)			
Manganese	0.0500		0.0348	0.0852	mg/L	1.43	101	(0%-20%)		02/01/23	18:32



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## QC Summary

Workorder: 608413

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Molybdenum	0.0500	U	ND	0.0558	mg/L	1.5	112	(0%-20%)	SKJ	02/03/23	15:11
Potassium	2.00		0.432	2.55	mg/L	0.416	106	(0%-20%)		02/01/23	18:32
Selenium	0.0500	U	ND	0.0467	mg/L	0.333	93.4	(0%-20%)			
Sodium	2.00		3.63	5.71	mg/L	2.43	104	(0%-20%)			
Thallium	0.0500	U	ND	0.0519	mg/L	2.13	104	(0%-20%)			
QC1205304632 608410001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Barium			11.8	J	2.36	ug/L	.33	(0%-20%)		02/01/23	18:39
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/06/23	16:20
Boron		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/03/23	15:17
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		02/01/23	18:39
Calcium			4860		1000	ug/L	3.15	(0%-20%)			
Chromium		J	9.50	U	ND	ug/L	N/A	(0%-20%)			
Cobalt		J	0.829	U	ND	ug/L	N/A	(0%-20%)			
Iron		J	82.4	U	ND	ug/L	N/A	(0%-20%)			

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## QC Summary

Workorder: 608413

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2374301										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	SKJ	02/03/23	15:17
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		5340		1050	ug/L	1.84		(0%-20%)			
Manganese		34.8		6.88	ug/L	1.11		(0%-20%)		02/01/23	18:39
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		02/03/23	15:17
Potassium		432	J	97.3	ug/L	12.6		(0%-20%)		02/01/23	18:39
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		3630		689	ug/L	4.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2374419										
QC1205304806	608391001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	01/27/23	10:12
QC1205304805	LCS										
Mercury	0.00200			0.00213	mg/L		106	(80%-120%)		01/27/23	10:08
QC1205304804	MB										
Mercury			U	ND	mg/L					01/27/23	10:07
QC1205304807	608391001	MS									
Mercury	0.00200	U	ND	0.00212	mg/L		106	(75%-125%)		01/27/23	10:13

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## QC Summary

Workorder: 608413

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2374419										
QC1205304808	608391001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	01/27/23	10:15
<b>Solids Analysis</b>											
Batch	2376170										
QC1205307926	608418001	DUP									
Total Dissolved Solids		344		341	mg/L	0.876		(0%-5%)	CH6	01/31/23	12:35
QC1205307924	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		01/31/23	12:35
QC1205307923	MB										
Total Dissolved Solids			U	ND	mg/L					01/31/23	12:35
<b>Spectrometric Analysis</b>											
Batch	2374521										
QC1205304980	LCS										
Total Sulfide	0.400			0.402	mg/L		101	(85%-115%)	JW2	01/30/23	15:43
QC1205304979	MB										
Total Sulfide			U	ND	mg/L					01/30/23	15:43
QC1205304981	608410001	PS									
Total Sulfide	0.400	U	ND	0.387	mg/L		96.8	(75%-125%)		01/30/23	15:43
QC1205304983	608418002	PS									
Total Sulfide	0.400	U	ND	0.352	mg/L		86.7	(75%-125%)		01/30/23	15:43
QC1205304982	608410001	PSD									
Total Sulfide	0.400	U	ND	0.392	mg/L	1.29	98.1	(0%-15%)		01/30/23	15:43
QC1205304984	608418002	PSD									
Total Sulfide	0.400	U	ND	0.362	mg/L	2.82	89.3	(0%-15%)		01/30/23	15:43

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## QC Summary

Workorder: 608413

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2375521										
QC1205307744 608651001 DUP											
Alkalinity, Total as CaCO3	H	54.8	H	54.8	mg/L	0		(0%-20%)	EK1	01/30/23	16:27
Bicarbonate alkalinity (CaCO3)	H	54.8	H	54.8	mg/L	0		(0%-20%)			
Carbonate alkalinity (CaCO3)	HU	ND	HU	ND	mg/L	N/A					
QC1205306666 LCS											
Alkalinity, Total as CaCO3	100			101	mg/L		101	(90%-110%)		01/30/23	15:14
QC1205307745 608651001 MS											
Alkalinity, Total as CaCO3	100	H	54.8	H	157	mg/L		103	(80%-120%)	01/30/23	16:31

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed

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*QC Summary*

Workorder: 608413

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.  
\* Indicates that a Quality Control parameter was not within specifications.  
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608413**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2374301

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2374300

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304628	Method Blank (MB) <b>ICP-MS</b>
1205304629	Laboratory Control Sample (LCS)
1205304632	608410001(BRA-BRGWA-2SL) Serial Dilution (SD)
1205304630	608410001(BRA-BRGWA-2SS) Matrix Spike (MS)
1205304631	608410001(BRA-BRGWA-2SSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 608413004 (BRA-BRGWC-32S) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	608413 004
Boron	10X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2374419

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2374418

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304804	Method Blank (MB)CVAA
1205304805	Laboratory Control Sample (LCS)
1205304808	608391001(NonSDGL) Serial Dilution (SD)
1205304806	608391001(NonSDGD) Sample Duplicate (DUP)
1205304807	608391001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2374002

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304357	Method Blank (MB)

1205304358                      Laboratory Control Sample (LCS)  
 1205304359                      608413001(BRA-BRGWA-12S) Sample Duplicate (DUP)  
 1205304360                      608413001(BRA-BRGWA-12S) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following sample 608413004 (BRA-BRGWC-32S) was diluted because target analyte concentrations exceeded the calibration range. The following samples 1205304359 (BRA-BRGWA-12SDUP), 1205304360 (BRA-BRGWA-12SPS), 608413001 (BRA-BRGWA-12S), 608413002 (BRA-BRGWA-12I), 608413003 (BRA-BRGWA-23S) and 608413004 (BRA-BRGWC-32S) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608413			
	001	002	003	004
Nitrate-N	5X	2X	2X	2X
Sulfate	1X	1X	1X	20X

**Miscellaneous Information**

**Manual Integrations**

Samples 608413002 (BRA-BRGWA-12I), 608413003 (BRA-BRGWA-23S) and 608413004 (BRA-BRGWC-32S) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2376170

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205307923	Method Blank (MB)
1205307924	Laboratory Control Sample (LCS)
1205307926	608418001(BRA-BRGWC-17S) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.



**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2374521

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205304979	Method Blank (MB)
1205304980	Laboratory Control Sample (LCS)
1205304981	608410001(BRA-BRGWA-2S) Post Spike (PS)
1205304982	608410001(BRA-BRGWA-2S) Post Spike Duplicate (PSD)
1205304983	608418002(BRA-BRGWC-33S) Post Spike (PS)
1205304984	608418002(BRA-BRGWC-33S) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2375521

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608413001	BRA-BRGWA-12S
608413002	BRA-BRGWA-12I
608413003	BRA-BRGWA-23S
608413004	BRA-BRGWC-32S
1205306666	Laboratory Control Sample (LCS)
1205307744	608651001(NonSDG) Sample Duplicate (DUP)
1205307745	608651001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Holding Times**

Samples (See Below) were initially analyzed within holding; however, the holding times had expired prior to reanalysis of samples. The data is qualified.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205307744 (Non SDG 608651001DUP)		Logged 26-JAN-23, out of holding 05-DEC-22
1205307745 (Non SDG 608651001MS)		Logged 26-JAN-23, out of holding 05-DEC-22

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608602**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2374786

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2374785

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205305392	Method Blank (MB)ICP-MS
1205305393	Laboratory Control Sample (LCS)
1205305396	608602001(BRA-PZ-44L) Serial Dilution (SD)
1205305394	608602001(BRA-PZ-44S) Matrix Spike (MS)
1205305395	608602001(BRA-PZ-44SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020A/6020B met the advisory control limits with the exception of boron. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected. 608602001 (BRA-PZ-44), 608602002 (BRA-APBCD-FD-01), 608602003 (BRA-BRGWC-45), 608602004 (BRA-APBCD-EB-04), 608602005 (BRA-APBCD-FB-01), 608602006 (BRA-BRGWC-50), 608602007 (BRA-BRGWC-52I) and 608602008 (BRA-BRGWC-27I).

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities

indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 608602001 (BRA-PZ-44), 608602006 (BRA-BRGWC-50), 608602007 (BRA-BRGWC-52I) and 608602008 (BRA-BRGWC-27I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608602			
	001	006	007	008
Boron	10X	5X	20X	10X
Calcium	1X	5X	1X	10X
Cobalt	1X	5X	1X	1X
Magnesium	1X	5X	1X	1X
Manganese	1X	100X	1X	1X
Sodium	1X	5X	1X	1X

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method: SW846 7470A**

**Analytical Procedure: GL-MA-E-010 REV# 39**

**Analytical Batch: 2375028**

**Preparation Method: SW846 7470A Prep**

**Preparation Procedure: GL-MA-E-010 REV# 39**

**Preparation Batch: 2375027**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205305818	Method Blank (MB)CVAA
1205305819	Laboratory Control Sample (LCS)
1205305822	608516009(NonSDGL) Serial Dilution (SD)
1205305820	608516009(NonSDGD) Sample Duplicate (DUP)
1205305821	608516009(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2374768

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205305380	Method Blank (MB)
1205305381	Laboratory Control Sample (LCS)
1205305382	608602001(BRA-PZ-44) Sample Duplicate (DUP)
1205305383	608602001(BRA-PZ-44) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Chloride	1205305383 (BRA-PZ-44PS)	115* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205305382 (BRA-PZ-44DUP), 1205305383 (BRA-PZ-44PS), 608602001 (BRA-PZ-44), 608602002 (BRA-APBCD-FD-01), 608602003 (BRA-BRGWC-45), 608602006

(BRA-BRGWC-50), 608602007 (BRA-BRGWC-52I) and 608602008 (BRA-BRGWC-27I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205305382 (BRA-PZ-44DUP), 1205305383 (BRA-PZ-44PS), 608602001 (BRA-PZ-44) and 608602003 (BRA-BRGWC-45) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608602					
	001	002	003	006	007	008
Chloride	1X	10X	10X	10X	1X	1X
Nitrate-N	5X	1X	2X	1X	1X	1X
Sulfate	5X	10X	10X	200X	20X	20X

**Product:** Solids, Total Dissolved

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2376740

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205308812	Method Blank (MB)
1205308813	Laboratory Control Sample (LCS)
1205308815	608602001(BRA-PZ-44) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** Sulfide, Total

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2374524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44

608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45
608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
1205304985	Method Blank (MB)
1205304986	Laboratory Control Sample (LCS)
1205305514	608602006(BRA-BRGWC-50) Post Spike (PS)
1205305515	608602006(BRA-BRGWC-50) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2375142

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205306027	Method Blank (MB)
1205306028	Laboratory Control Sample (LCS)
1205306031	608614004(BRA-PZ-53D) Post Spike (PS)
1205306032	608614004(BRA-PZ-53D) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2378173

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608602001	BRA-PZ-44
608602002	BRA-APBCD-FD-01
608602003	BRA-BRGWC-45

608602004	BRA-APBCD-EB-04
608602005	BRA-APBCD-FB-01
608602006	BRA-BRGWC-50
608602007	BRA-BRGWC-52I
608602008	BRA-BRGWC-27I
1205311289	Laboratory Control Sample (LCS)
1205311290	608567004(NonSDG) Sample Duplicate (DUP)
1205311291	608567004(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Technical Case Narrative  
Georgia Power Company  
SDG #: 608803**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2375324

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2375322

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205306362	Method Blank (MB)ICP-MS
1205306363	Laboratory Control Sample (LCS)
1205306366	608803001(BRA-BRGWC-25IL) Serial Dilution (SD)
1205306364	608803001(BRA-BRGWC-25IS) Matrix Spike (MS)
1205306365	608803001(BRA-BRGWC-25ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities

indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 608803001 (BRA-BRGWC-25I), 608803002 (BRA-BRGWC-29I), 608803003 (BRA-BRGWC-30I), 608803006 (BRA-PZ-51I), 608803007 (BRA-APBCD-FD-02), 608803008 (BRA-BRGWC-47), 608803009 (BRA-PZ-51D), 608803010 (BRA-PZ-58I), 608803011 (BRA-PZ-59I), 608803012 (BRA-PZ-60I), 608803013 (BRA-PZ-61I), 608803014 (BRA-PZ-65I) and 608803015 (BRA-PZ-50D) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. Per the SOP, sample 608803011 (BRA-PZ-59I) was diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	608803									
	001	002	003	006	007	008	009	010	011	012
Barium	1X	1X	1X	1X	1X	1X	1X	1X	5X	1X
Boron	20X	10X	20X	10X	10X	10X	1X	10X	1X	10X
Calcium	20X	10X	20X	10X	10X	10X	10X	10X	100X	10X
Cobalt	1X	1X	1X	1X	1X	1X	1X	1X	5X	10X
Iron	1X	1X	1X	1X	1X	1X	1X	1X	100X	1X
Lead	1X	1X	1X	1X	1X	1X	1X	1X	5X	1X
Magnesium	1X	1X	20X	10X	10X	10X	1X	10X	5X	10X
Manganese	20X	10X	20X	100X	100X	1X	10X	100X	100X	1000X
Sodium	1X	1X	1X	1X	1X	1X	10X	1X	5X	10X
Thallium	1X	1X	1X	1X	1X	1X	1X	1X	5X	1X

Analyte	608803		
	013	014	015
Boron	10X	1X	10X
Calcium	10X	10X	10X
Iron	1X	10X	1X
Magnesium	10X	10X	10X
Manganese	1000X	100X	100X
Sodium	10X	10X	1X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2375754

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2375753

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205307094	Method Blank (MB)CVAA
1205307095	Laboratory Control Sample (LCS)
1205307098	608803003(BRA-BRGWC-30IL) Serial Dilution (SD)
1205307096	608803003(BRA-BRGWC-30ID) Sample Duplicate (DUP)
1205307097	608803003(BRA-BRGWC-30IS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

#### Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## General Chemistry

#### Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2375330

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
1205306396	Method Blank (MB)
1205306397	Laboratory Control Sample (LCS)
1205306398	608658011(NonSDG) Sample Duplicate (DUP)
1205306399	608658011(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205306398 (Non SDG 608658011DUP), 1205306399 (Non SDG 608658011PS), 608803001 (BRA-BRGWC-25I), 608803002 (BRA-BRGWC-29I), 608803003 (BRA-BRGWC-30I), 608803006 (BRA-PZ-51I) and 608803007 (BRA-APBCD-FD-02) were diluted because target analyte concentrations exceeded the calibration range. The following sample 608803001 (BRA-BRGWC-25I) in this sample group was diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608803				
	001	002	003	006	007
Chloride	1X	1X	1X	2X	5X
Nitrate-N	5X	1X	1X	1X	1X
Sulfate	20X	25X	100X	100X	100X

**Miscellaneous Information**

**Manual Integrations**

Samples 608803002 (BRA-BRGWC-29I) and 608803007 (BRA-APBCD-FD-02) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Ion Chromatography**

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2375336

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205306401	Method Blank (MB)
1205306402	Laboratory Control Sample (LCS)

1205306403                      608803015(BRA-PZ-50D) Sample Duplicate (DUP)  
 1205306404                      608803015(BRA-PZ-50D) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205306404 (BRA-PZ-50DPS)	111* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205306403 (BRA-PZ-50DDUP), 1205306404 (BRA-PZ-50DPS), 608803008 (BRA-BRGWC-47), 608803009 (BRA-PZ-51D), 608803010 (BRA-PZ-58I), 608803011 (BRA-PZ-59I), 608803012 (BRA-PZ-60I), 608803013 (BRA-PZ-61I), 608803014 (BRA-PZ-65I) and 608803015 (BRA-PZ-50D) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205306403 (BRA-PZ-50DDUP), 1205306404 (BRA-PZ-50DPS), 608803011 (BRA-PZ-59I), 608803014 (BRA-PZ-65I) and 608803015 (BRA-PZ-50D) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608803							
	008	009	010	011	012	013	014	015
Chloride	1X	40X	2X	10X	5X	5X	5X	2X
Fluoride	1X	1X	1X	10X	1X	1X	1X	2X
Nitrate-N	1X	1X	1X	10X	1X	1X	5X	1X
Sulfate	200X	40X	100X	500X	200X	200X	200X	100X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2376741

The following samples were analyzed using the above methods and analytical procedure(s).

**GEL Sample ID#**  
608803001

**Client Sample Identification**  
BRA-BRGWC-25I

608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
1205308816	Method Blank (MB)
1205308817	Laboratory Control Sample (LCS)
1205308819	608803009(BRA-PZ-51D) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2377347

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205309757	Method Blank (MB)
1205309758	Laboratory Control Sample (LCS)
1205309759	608803013(BRA-PZ-61I) Sample Duplicate (DUP)
1205309760	608969004(BRA-PZ-57I) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2375859

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
1205307354	Method Blank (MB)
1205307355	Laboratory Control Sample (LCS)
1205307356	608803001(BRA-BRGWC-25I) Post Spike (PS)
1205307357	608803001(BRA-BRGWC-25I) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Total Sulfide	1205307356 (BRA-BRGWC-25IPS)	67.5* (75%-125%)
	1205307357 (BRA-BRGWC-25IPSD)	69.7* (75%-125%)

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2376122

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205307835	Method Blank (MB)

1205307836	Laboratory Control Sample (LCS)
1205307839	608815006(BRA-PZ-52D) Post Spike (PS)
1205307840	608815006(BRA-PZ-52D) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2378066

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803001	BRA-BRGWC-25I
608803002	BRA-BRGWC-29I
608803003	BRA-BRGWC-30I
608803004	BRA-APBCD-EB-05
608803005	BRA-APBCD-FB-02
608803006	BRA-PZ-51I
608803007	BRA-APBCD-FD-02
608803008	BRA-BRGWC-47
608803009	BRA-PZ-51D
608803010	BRA-PZ-58I
1205311155	Laboratory Control Sample (LCS)
1205311156	608803001(BRA-BRGWC-25I) Sample Duplicate (DUP)
1205311157	608803001(BRA-BRGWC-25I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

<4.5 pH values were confirmed by pH strip 608803002 (BRA-BRGWC-29I), 608803007 (BRA-APBCD-FD-02) and 608803010 (BRA-PZ-58I).

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2378067



The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608803011	BRA-PZ-59I
608803012	BRA-PZ-60I
608803013	BRA-PZ-61I
608803014	BRA-PZ-65I
608803015	BRA-PZ-50D
1205311158	Laboratory Control Sample (LCS)
1205313003	608803012(BRA-PZ-60I) Sample Duplicate (DUP)
1205313004	608803012(BRA-PZ-60I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

pH value <4.5 was validated by pH strip 608803011 (BRA-PZ-59I).

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 608969**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2376276

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2376275

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205308093	Method Blank (MB)ICP-MS
1205308094	Laboratory Control Sample (LCS)
1205308097	608969001(BRA-PZ-66IL) Serial Dilution (SD)
1205308095	608969001(BRA-PZ-66IS) Matrix Spike (MS)
1205308096	608969001(BRA-PZ-66ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Quality Control (QC) Information**

#### **Serial Dilution % Difference Statement**

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the

IDL/MDL for CVAA, 50X the IDL/MDL for ICP and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. Not all the applicable analytes were within the established acceptance criteria. Matrix suppression may be suspected. The data has been qualified.

Sample	Analyte	Value
1205308097 (BRA-PZ-66ISDILT)	Calcium	24.4 *(0%-20%)
	Magnesium	22.5 *(0%-20%)
	Sodium	25.2 *(0%-20%)

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 608969001 (BRA-PZ-66I), 608969004 (BRA-PZ-57I), 608969005 (BRA-APBCD-FD03), 608969006 (BRA-PZ-63I), 608969007 (BRA-PZ-62I), 608969008 (BRA-PZ-51S) and 608969009 (BRA-PZ-64I) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	608969						
	001	004	005	006	007	008	009
Boron	1X	5X	5X	10X	5X	1X	1X
Calcium	10X	5X	5X	1X	5X	1X	10X
Cobalt	1X	1X	1X	1X	1X	1X	20X
Magnesium	10X	5X	5X	1X	5X	1X	10X
Manganese	500X	100X	100X	10X	100X	5X	500X
Sodium	10X	1X	1X	1X	1X	1X	5X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2376750

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2376749

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S

608969009	BRA-PZ-64I
1205308830	Method Blank (MB)CVAA
1205308831	Laboratory Control Sample (LCS)
1205308834	609006008(NonSDGL) Serial Dilution (SD)
1205308832	609006008(NonSDGD) Sample Duplicate (DUP)
1205308833	609006008(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2376273

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205308088	Method Blank (MB)
1205308089	Laboratory Control Sample (LCS)
1205308090	608969009(BRA-PZ-64I) Sample Duplicate (DUP)
1205308091	608969009(BRA-PZ-64I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Sample Dilutions**

The following samples 1205308090 (BRA-PZ-64IDUP), 1205308091 (BRA-PZ-64IPS), 608969001 (BRA-PZ-66I), 608969004 (BRA-PZ-57I), 608969005 (BRA-APBCD-FD03), 608969006 (BRA-PZ-63I), 608969007 (BRA-PZ-62I) and 608969009 (BRA-PZ-64I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix

interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	608969					
	001	004	005	006	007	009
Chloride	5X	1X	5X	1X	5X	10X
Sulfate	200X	200X	200X	25X	100X	500X

**Sample Re-analysis**

Sample 608969002 (BRA-APBCD-FB-03) was re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported. Sample 608969002 (BRA-APBCD-FB-03) was re-analyzed to verify the result.

**Miscellaneous Information**

**Manual Integrations**

Samples 1205308090 (BRA-PZ-64IDUP) and 608969008 (BRA-PZ-51S) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2377347

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205309757	Method Blank (MB)
1205309758	Laboratory Control Sample (LCS)
1205309759	608803013(BRA-PZ-61I) Sample Duplicate (DUP)
1205309760	608969004(BRA-PZ-57I) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D  
**Analytical Procedure:** GL-GC-E-052 REV# 12  
**Analytical Batch:** 2376122

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
1205307835	Method Blank (MB)
1205307836	Laboratory Control Sample (LCS)
1205307839	608815006(BRA-PZ-52D) Post Spike (PS)
1205307840	608815006(BRA-PZ-52D) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D  
**Analytical Procedure:** GL-GC-E-052 REV# 12  
**Analytical Batch:** 2377896

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969009	BRA-PZ-64I
1205310859	Method Blank (MB)
1205310860	Laboratory Control Sample (LCS)
1205310863	609152001(BRA-IW-B-2) Post Spike (PS)
1205310864	609152001(BRA-IW-B-2) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is

less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Total Sulfide	1205310863 (BRA-IW-B-2PS)	45.7* (75%-125%)
	1205310864 (BRA-IW-B-2PSD)	47* (75%-125%)

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2382211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
608969001	BRA-PZ-66I
608969002	BRA-APBCD-FB-03
608969003	BRA-APBCD-EB-06
608969004	BRA-PZ-57I
608969005	BRA-APBCD-FD03
608969006	BRA-PZ-63I
608969007	BRA-PZ-62I
608969008	BRA-PZ-51S
608969009	BRA-PZ-64I
1205317832	Laboratory Control Sample (LCS)
1205317833	608969001(BRA-PZ-66I) Sample Duplicate (DUP)
1205317834	608969001(BRA-PZ-66I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 609212**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2377747

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2377746

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205310467	Method Blank (MB)ICP-MS
1205310468	Laboratory Control Sample (LCS)
1205310471	609211001(BRA-IW-B-1L) Serial Dilution (SD)
1205310469	609211001(BRA-IW-B-1S) Matrix Spike (MS)
1205310470	609211001(BRA-IW-B-1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	609212	
	001	002
Boron	5X	10X



Calcium	5X	10X
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**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2378878

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2378875

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205312141	Method Blank (MB)CVAA
1205312142	Laboratory Control Sample (LCS)
1205312145	609438010(NonSDGL) Serial Dilution (SD)
1205312143	609438010(NonSDGD) Sample Duplicate (DUP)
1205312144	609438010(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2377739

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205310453	Method Blank (MB)
1205310454	Laboratory Control Sample (LCS)
1205310455	609211001(BRA-IW-B-1) Sample Duplicate (DUP)
1205310456	609211001(BRA-IW-B-1) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205310456 (BRA-IW-B-1PS)	114* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205310455 (BRA-IW-B-1DUP), 1205310456 (BRA-IW-B-1PS), 609212001 (BRA-PZ-68D) and 609212002 (BRA-PZ-69I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205310455 (BRA-IW-B-1DUP) and 1205310456 (BRA-IW-B-1PS) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	609212	
	001	002
Chloride	20X	1X
Sulfate	20X	20X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2379677

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205313477	Method Blank (MB)
1205313478	Laboratory Control Sample (LCS)
1205313479	609435002(NonSDG) Sample Duplicate (DUP)
1205314103	609211001(BRA-IW-B-1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205314103 (BRA-IW-B-1DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2377896

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205310859	Method Blank (MB)
1205310860	Laboratory Control Sample (LCS)
1205310863	609152001(BRA-IW-B-2) Post Spike (PS)
1205310864	609152001(BRA-IW-B-2) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Sulfide	1205310863 (BRA-IW-B-2PS)	45.7* (75%-125%)
	1205310864 (BRA-IW-B-2PSD)	47* (75%-125%)

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 14

**Analytical Batch:** 2382489

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
609212001	BRA-PZ-68D
609212002	BRA-PZ-69I
1205318635	Laboratory Control Sample (LCS)
1205318636	609152001(BRA-IW-B-2) Sample Duplicate (DUP)
1205318637	609152001(BRA-IW-B-2) Matrix Spike (MS)
1205319654	609212001(BRA-PZ-68D) Sample Duplicate (DUP)
1205319655	609212001(BRA-PZ-68D) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # **608969**  
 GEL Quote #: **608972**  
 COC Number U: \_\_\_\_\_  
 PO Number: \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: *J. Beck* ACC  
 Send Results To: SCS & Geosyntec Contacts  
 Sample ID: \_\_\_\_\_  
 \* For composites - indicate start and stop date/time

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiocassay | Speciality Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 GEL Work Order Number: \_\_\_\_\_  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID	Date Collected (mm/dd/yy)	Time Collected (Military) (hh:mm)	QC Code (3)	Field Filtered (2)	Sample Matrix (2)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)			Comments
						Radioactive (if yes please supply isotopic info)	Known or possible hazards		Metals *	Radum 226 & 228	SW-46 9315, 9320	
BRA-PZ-661	01/30/23	1420	G	N	WG			8	NI	NI	NI	field pH = 5.64 field ferrous iron = 6.0
BRA-APBCD-FB-03	02/03/23	1350	G	N	WG			8	✓	✓	✓	field pH = _____ field ferrous iron = _____
BRA-APBCD-FB-06	01/30/23	1515	G	N	WG			8	✓	✓	✓	field pH = _____ field ferrous iron = _____
BRA-PZ-571	02/03/23	1425	G	N	WG			8	✓	✓	✓	field pH = 5.39 field ferrous iron = 1.0
BRA-APBCD-FD-03	01/30/23	---	G	N	WG			8	✓	✓	✓	field pH = _____ field ferrous iron = _____

Chain of Custody Signatures  
 Relinquished By (Signed) *[Signature]* Date *1/31/23* Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 1. *[Signature]* Date *1/30/23* Time *1800*  
 2. *[Signature]* Date *1/31/23* Time *0901*  
 3. \_\_\_\_\_  
 TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, I, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: *2* °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other.

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste, RE = Reactive, TSCA Regulated, PCB = Polychlorinated biphenyls  
 Listed Waste: OI = Other / Unknown, (i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns: (i.e. Origin of sample(s), type of site collected from, odd matrices, etc.)

Sample ID	Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5)				Preservative Type (6)	Comments
						Known or isotopic info. (1)	Possible Hazards (2)		Cl, F, SO4, TDS, NO3 EPA 309, SM 2540C	Total & Bicarb Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320		
BRA-PZ-63I	01/30/23 <del>02/16/23</del>	1340	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.66 field ferrous iron = 1.0
BRA-PZ-62I	01/30/23 <del>02/16/23</del>	1300	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.38 field ferrous iron = 0.5
BRA-PZ-51S	01/30/23 <del>02/16/23</del>	1530	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 6.18 field ferrous iron = 0.0
BRA-PZ-64I	01/30/23 <del>02/16/23</del>	1700	G	N	WG			8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	field pH = 5.33 field ferrous iron = 0.0
BRA-														field pH = _____ field ferrous iron = _____

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Relinquished By (Signed) *Dave Miller* Date *1/30/23* Time *1800*

1 *Dave Miller* Date *1/30/23* Time *1800*

2 *Dave Miller* Date *1/31/23* Time *0901*

3 \_\_\_\_\_

Chain of Custody Signatures

Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Relinquished By (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

Preservative Type: EA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

KNOWN OR POSSIBLE HAZARDS

FL = Flammable/Ignitable  
CO = Corrosive  
RE = Reactive

TSCA Regulated  
PCB = Polychlorinated biphenyls

Characteristic Hazards

FL = Flammable/Ignitable  
CO = Corrosive  
RE = Reactive

LW = Listed Waste  
(F, K, P, and U-listed wastes.)  
Waste code(s): \_\_\_\_\_

Other  
OT = Other / Unknown  
(i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e. Origin of sample(s), type of site collected from, odd matrices, etc.)

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

Chain of Custody Number = Client Determined

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: EA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, BX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

FL = Flammable/Ignitable  
CO = Corrosive  
RE = Reactive

TSCA Regulated  
PCB = Polychlorinated biphenyls

Characteristic Hazards

FL = Flammable/Ignitable  
CO = Corrosive  
RE = Reactive

LW = Listed Waste  
(F, K, P, and U-listed wastes.)  
Waste code(s): \_\_\_\_\_

Other  
OT = Other / Unknown  
(i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns. (i.e. Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

*ET*

Client: *GARC* SDG/AR/COC/Work Order: *608969 608972*

Received By: *MVH* Date Received: *01-31-2023*

Carrier and Tracking Number

Circle Applicable:  
 FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other

*cooler 3-1  
 cooler 2-2  
 cooler 1-1*

Suspected Hazard Information    Yes    No    \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?        Hazard Class Shipped:    UN#:    If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_

B) Did the client designate the samples are to be received as radioactive?        COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive?        Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 00 CPM/mR/Hr  
 Classified as: Rad 1    Rad 2    Rad 3

D) Did the client designate samples are hazardous?        COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards?        If D or E is yes, select Hazards below.  
 PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice    Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius    TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: <u>BRA-P2-571, BRA-P2-661, BRA-P2-641</u> If Preservation added, Lot #: <u>1344-13 Sodium Hydroxide</u> If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 2/1/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # **608413** **GEL** Laboratories LLC  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Quote #: **608416**  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: **608416**  
 GEL Project Manager: **Erin Trent**

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Collected By: **J. Bennett** ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - Indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Sample Analysis Requested (d) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1
						Yes, please supply isotopic info.	(7) Known or possible Hazards	Total number of containers	Cl, F, SO4, TDS, NO3 EPA 300, SM 2540C	Total & Bicarb Alk SM 220B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	
BRA-BR6WA-125	01/24/23	1310	G	N	WG			8	✓	✓	✓	✓	field pH = 5.97
BRA-BR6WA-121	01/24/23	1450	G	N	WG			8	✓	✓	✓	✓	field ferrous iron = 0.0 field pH = 6.48
BRA-BR6WA-235	01/24/23	1415	G	N	WG			8	✓	✓	✓	✓	field ferrous iron = 0.0 field pH = 5.76
BRA-BR6WC-325	01/24/23	1541	G	N	WG			8	✓	✓	✓	✓	field ferrous iron = 0.0 field pH = 6.05
BRA-													field ferrous iron = 0.0 field pH = _____

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *[Signature]* 1/25/23 08:29  
 2. *[Signature]* 1-25-23 1338  
 3. \_\_\_\_\_

TAT Requested: Normal:  Yes  No  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - For yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WO=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

**7.) KNOWN OR POSSIBLE HAZARDS**

**RCRA Metals**  
 AS = Arsenic Hg= Mercury  
 Ba = Barium Se= Selenium  
 Cd = Cadmium Ag= Silver  
 Cr = Chromium MR= Misc. RCRA metals  
 Pb = Lead

**Characteristic Hazards**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

**Listed Waste**  
 LW= Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls

**Other**  
 OT= Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_

Please provide any additional details below regarding handling and/or disposal concerns, (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GPEC</u>		SDG/AR/COC/Work Order: <u>608413 608416</u>	
Received By: <u>PL</u>		Date Received: <u>1/25/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other	
Suspected Hazard Information		Yes	No
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
Sample Receipt Criteria		Yes	NA
		No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AM Date 1/26/23 Page 1 of 1

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code <sup>(b)</sup>	Field Filtered <sup>(a)</sup>	Sample Matrix <sup>(a)</sup>	Should this sample be considered:		Total number of containers	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)				Preservative Type (6)	Comments
						Radioactive (if yes, please supply isotopic info)	(?) Known or possible Hazards		Metals *	Radium 226 & 228	SW-846 9315, 9320	Sulfide SM 4500		
BRA- PZ-68D	02/01/23	1416	G	N	WG	N	N	8	✓	✓	✓	NI	NI	field pH = 7.24 field ferrous iron = 0.0
BRA- PZ-69I	02/01/23	1247	G	N	WG	N	N	8	✓	✓	✓	NI	NI	field pH = 6.14 field ferrous iron = 0.0

Chain of Custody Signatures			TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: _____ (Subject to Surcharge)		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>Tony Goble</i>	2-23-2023	0959	<i>Erin Trent</i>	2/23	9:59
<i>Erin Trent</i>	2/23	2:20	<i>Erin Trent</i>	2/23	2:20

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Bc,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

Other:  OT= Other / Unknown  
 Description:  High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)

Characteristic Hazards: FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

RCRA Metals: As = Arsenic  
 Ba = Barium  
 Cd = Cadmium  
 Cr = Chromium  
 Pb = Lead

Hg = Mercury  
 Se = Selenium  
 Ag = Silver  
 MIR = Misc. RCRA metals

Listed Waste: LW = Listed Waste (F,K,P and U-listed wastes.)  
 Waste code(s):

TSCA Regulated: PCB = Polychlorinated biphenyls

**SAMPLE RECEIPT & REVIEW FORM**

609211 | 609212

Client: <b>GPCC</b>		SDG/AR/COC/Work Order: <b>609211   609212</b>	
Received By: <b>Stacy Boone</b>		Date Received: <b>2/2/2023</b>	
Carrier and Tracking Number		Circle Applicable: <input type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Other	
Suspected Hazard Information		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/> Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>8</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. <input type="checkbox"/> PCB's <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium <input type="checkbox"/> Other:	
Sample Receipt Criteria		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Preservation Method: Wet Ice Ice Packs Dry Ice None Other: *all temperatures are recorded in Celsius TEMP: <u>ice</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Temperature Device Serial #: <u>IR3-22</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
			Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
			Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> No	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials Am Date 2/3/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # \_\_\_\_\_ of \_\_\_\_\_

GEL Quote #: \_\_\_\_\_

COC Number <sup>(1)</sup>: \_\_\_\_\_

PO Number: \_\_\_\_\_

GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC 29407  
Phone: (843) 556-8171  
Fax: (843) 766-1178

**GEL** Laboratories LLC **6088013**  
Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
**Chain of Custody and Analytical Request**  
GEL Project Manager: Erin Trent

GEL Work Order Number: \_\_\_\_\_  
Phone # 404-506-7116  
Fax # \_\_\_\_\_

Client Name: GA Power  
Project/Site Name: Plant Branch Ash Ponds - BCD  
Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: J. S. Pr. 2602 ACC  
Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm))	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)					Total number of containers	Should this sample be considered: (7) Known or possible hazards (8) Radioactive (if yes, please supply isotopic info)	Comments
						NI	IN	SM 4500 Sulfide	SW-846 9315, 9320	Radium 226 & 228			
BRA-BZ6WC-25I	01/26/23	1015	G	N	WG	8	✓	✓	✓	✓	✓	field pH = 6.18 field ferrous iron = 0.0	
BRA-BZ6WC-29I	01/26/23	1130	G	N	WG	8	✓	✓	✓	✓	✓	field pH = 4.30 field ferrous iron = 5.0	
BRA-BZ6WC-30I	01/26/23	1105	G	N	WG	8	✓	✓	✓	✓	✓	field pH = 6.28 field ferrous iron = 0.0	
BRA-APBCD-EB-03	01/26/23	1400 1610	G	N	WQ	8	✓	✓	✓	✓	✓	field pH = N/A field ferrous iron = N/A	
BRA-APBCD-FB-02	01/26/23	1425	G	N	WQ	8	✓	✓	✓	✓	✓	field pH = N/A field ferrous iron = N/A	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1/27/23	0950	<i>[Signature]</i>	1/27/23	0950
<i>[Signature]</i>	1/27/23	213	<i>[Signature]</i>	1/27/23	213

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 GEL Work Order Number: \_\_\_\_\_  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Should this sample be considered:	Total number of containers	Sample Analysis Requested <sup>(5)</sup>	Preservative Type (6)
BRA- BR606-25E BRA-P2-51I	01/26/23	1200	G	N	WG	<input type="checkbox"/> Known or possible Hazards <input type="checkbox"/> Radioactive (If yes, please supply isotopic info)	8	Metals * EPA 6020, 6010, 7470 Total & Heavy Alk SM 2320B C, F, SO <sub>4</sub> , TDS, NO <sub>3</sub> EPA 300, SM 2540C Radium 226 & 228 SW-846 9315, 9320 Sulfide SM 4500	QC Note: extra sample is required for sample specific Task Code: BRA-CCR-ASSMT-2023S1 field pH = 5.44 field ferrous iron = 0.0 field pH = NA field ferrous iron = NA field pH = 5.65 field ferrous iron = 0.0 field pH = 7.20 field ferrous iron = 1.0 field pH = 3.93 field ferrous iron = 4.0
BRA-APBCD-FD-02	01/26/23	---	G	N	WG		8		
BRA-B76WC-47	01/26/23	1333	G	N	WG		8		
BRA-P2-51D	01/26/23	0950	G	N	WG		8		
BRA-P2-58I	01/26/23	1500	G	N	WG		8		

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	1/29/23	<i>[Signature]</i>	1/29/23	950
<i>[Signature]</i>	1/27/23	<i>[Signature]</i>	1/27/23	213

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, if no preservative is added = leave field blank

**7.) KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b> As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	<b>Characteristic Hazards</b> FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	<b>Listed Waste</b> LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	<b>Other</b> OT = Other / Unknown (i.e. High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____
---	---	--	--

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Preservative Type (6)
						(7) Known or possible Hazards	Yes, please supply isotopic info.	CL, F, SO4, TDS, NO3 EPA 300, SM 2540C	Total & Extract Alk SM 2320B	Metals * EPA 6020, 6010, 7470	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	
BRA-PZ-59I	01/26/23	1317	G	N	WG			8	✓	✓	✓	✓	field pH = 3.78 field ferrous iron = 6.5
BRA-PZ-60I	01/26/23	1505	6	N	WG			8	✓	✓	✓	✓	field pH = 4.16 field ferrous iron = 0.5
BRA-PZ-61I	01/26/23	1410	6	N	WG			8	✓	✓	✓	✓	field pH = 5.16 field ferrous iron = 0.5
BRA-PZ-65I	01/26/23	1645	6	N	WG			8	✓	✓	✓	✓	field pH = 4.06 field ferrous iron = 6.0
BRA-PZ-50D	01/27/23	0840	6	N	WG			8	✓	✓	✓	✓	field pH = 6.24 field ferrous iron = 4.5

**Chain of Custody Signatures**  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date 12/27/23 Time 950  
 \_\_\_\_\_ Date 12/27/23 Time 2:13  
 \_\_\_\_\_ Date 12/27/23 Time 3:13  
 TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_  
**> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).**

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SF=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sulfuric Acid, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
**7.) KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards: FL = Flammable/Ignitable, LW = Listed Waste (F, K, P and U-listed wastes), RE = Reactive  
 Listed Waste: \_\_\_\_\_  
 Other: \_\_\_\_\_  
 RCRA Metals: As = Arsenic, Hg = Mercury, Se = Selenium, Ba = Barium, Ag = Silver, Cd = Cadmium, MR = Misc. RCRA metals, Cr = Chromium, Pb = Lead  
 TSCA Regulated: PCB = Polychlorinated biphenyls  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

Client: GPOC SDG/AR/COC/Work Order: 608803, 608813 ET  
 Received By: Thyasia Tatum Date Received: 1-27-23

Carrier and Tracking Number  
 FedEx Express FedEx Ground UPS Field Services Courier Other

**Suspected Hazard Information** Yes No  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous? Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 B) Did the client designate the samples are to be received as radioactive? COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive? Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous? COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards? If D or E is yes, select Hazards below.  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 < 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>IC</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PM (or PMA) review: Initials AT Date 1/31/23 Page 1 of 1



Page: \_\_\_\_\_ of \_\_\_\_\_

Project # 608602 **GEL Laboratories LLC** 608609 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Quote #: \_\_\_\_\_ Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
 COC Number (1): \_\_\_\_\_ **Chain of Custody and Analytical Request**  
 P.O. Number: \_\_\_\_\_ **GEL Project Manager: Erin Trent**

**GEL Work Order Number:** \_\_\_\_\_ **GEL Project Manager: Erin Trent**

Client Name: GA Power Phone # 404-506-7116  
 Project/Site Name: Plant Branch Ash Ponds - BCD Fax # \_\_\_\_\_  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hh:mm)	QC Code (2)	Field Filtered (3)	Sample Matrix (6)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Preservative Type (6)	Comments
						(7) Known or isotopic info)	(7) Possible Hazards		Radionuclide (If yes, please supply isotopic info)	Metals *	Total & Breath Aik	SM 2320B	EPA 6020, 6010, 7470		
BRA-PZ-44	01/25/23	1325	G	N	WG			8	✓	✓	✓	✓	✓	✓	field pH = 6.13 field ferrous iron = 0.0
BRA-APBCD-FD-01	01/25/23	—	G	N	WG			8	✓	✓	✓	✓	✓	✓	field pH = N/A field ferrous iron = —
BRA-BRGWC-415	01/25/23	1440	G	N	WG			8	✓	✓	✓	✓	✓	✓	field pH = 5.82 field ferrous iron = 0.0
BRA-APBCD-EB-04	01/25/23	1630	G	N	WQ			8	✓	✓	✓	✓	✓	✓	field pH = N/A field ferrous iron = —
BRA-APBCD-FB-01	01/25/23	1305	G	N	WQ			8	✓	✓	✓	✓	✓	✓	field pH = N/A field ferrous iron = —

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	1/26/23	0828	<i>[Signature]</i>	1/26/23	838
<i>[Signature]</i>	1/26/23	115	<i>[Signature]</i>	1/26/23	115

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b>	<b>Characteristic Hazards</b>	<b>Listed Waste</b>	<b>Other</b>
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

**TSCA Regulated**  
PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA, 30308  
 Collected By: J. Benford ACC

Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radiative (If Yes, please supply isotopic info)	Total number of containers	Should this sample be considered:	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
BRA-BR6WC-50	01/25/23	1325	G	N	WG		8	(7) Known or possible Hazards	<input checked="" type="checkbox"/> Metals * <input checked="" type="checkbox"/> EPA 6020, 6010, 7470 <input checked="" type="checkbox"/> Radium 226 & 228 <input checked="" type="checkbox"/> SW-846 9315, 9320 <input checked="" type="checkbox"/> SM 4500 <input checked="" type="checkbox"/> Total & leach Alk <input checked="" type="checkbox"/> SM 2320B <input checked="" type="checkbox"/> EPA 300, SM 2540C <input checked="" type="checkbox"/> Cr, P, SO4, TDS, NO3		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI field pH = 5.18 field ferrous iron = 0.0
BRA-BR6WC-52I	01/25/23	1510	G	N	WG		8				field pH = 6.25 field ferrous iron = 1.0
BRA-BR6WC-27I	01/25/23	1345	G	W	WG		8				field pH = 5.63 field ferrous iron = 0.0
BRA-											field pH = _____ field ferrous iron = _____
BRA-											field pH = _____ field ferrous iron = _____

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *[Signature]* 1/24/23 0826  
 2. *[Signature]* 1/24/23 1:13  
 3. \_\_\_\_\_

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
- KNOWN OR POSSIBLE HAZARDS
 

Characteristic Hazards	Listed Waste
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes) Waste code(s): _____
TSCA Regulated PCB = Polychlorinated biphenyls	Other OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

608602  
608609

Client: **GPCC** SDG/AR/COC/Work Order:  
 Received By: **Stacy Boone** Date Received: **JAN 26, 2023**  
 Carrier and Tracking Number: \_\_\_\_\_  
 Circle Applicable: FedEx Express  FedEx Ground  UPS  Field Services  Courier  Other

Suspected Hazard Information:  Yes  No \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 C) Did the RSO classify the samples as radioactive?  COC notation or radioactive stickers on containers equal client designation.  
 D) Did the client designate samples are hazardous?  Maximum Net Counts Observed\* (Observed Counts - Area Background Counts):  CPM / mR/hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 E) Did the RSO identify possible hazards?  COC notation or hazard labels on containers equal client designation.  
 If D or E is yes, select Hazards below: PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: \_\_\_\_\_

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: <b>TEMP: 10 x 5</b> *all temperatures are recorded in Celsius
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: IR3-22 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected: ID's and tests affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments (Use Continuation Form if needed):  
 PM (or PMA) review: Initials **AD** Date **1/27/23** Page **1** of **1**

## Anna Johnson

---

**From:** Adrian Melendrez  
**Sent:** Wednesday, February 1, 2023 2:18 PM  
**To:** JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM;  
MJSMILLE@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM;  
NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com  
**Cc:** Team Trent  
**Subject:** RE: Preservation 608969

CCing the correct team address.

---

**From:** Adrian Melendrez  
**Sent:** Wednesday, February 1, 2023 2:16 PM  
**To:** JABRAHAM@SOUTHERNCO.COM; KNJURINK@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM;  
MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com  
**Cc:** Team Boddiford <Team.Boddiford@gel.com>  
**Subject:** Preservation 608969

Notifying you that these samples were preserved with sodium hydroxide upon arrival. No reply is necessary just wanted to keep you in the loop.

- BRA-PZ-57I
- BRA-PZ-66I
- BRA-PZ-64I

Thanks!

-Adrian

**Adrian Melendrez**  
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417

Office Main: 843.556.8171 EXT 4409 | Fax: 843.766.1178

E-Mail: [Adrian.Melendrez@gel.com](mailto:Adrian.Melendrez@gel.com) | Website: [www.gel.com](http://www.gel.com)

**Analytical Testing**





**List of current GEL Certifications as of 24 February 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780





March 28, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 614819

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 17, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 614819 GEL Work Order: 614819

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_

*Anna Johnson*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: March 28, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I	Project: GPCC00101
Sample ID: 614819001	Client ID: GPCC001
Matrix: WG	
Collect Date: 16-MAR-23 10:00	
Receive Date: 17-MAR-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.92			SU			EOS1	03/16/23	1000	2400285	1
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		274	2.66	8.00	mg/L		20	HXC1	03/20/23	1603	2400698	2
Chloride		5.71	0.0670	0.200	mg/L		1	HXC1	03/19/23	0704	2400698	3
Fluoride		0.209	0.0330	0.100	mg/L		1					
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	03/22/23	1059	2401401	4
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		1.36	0.0520	0.150	mg/L	1.00	10	BAJ	03/22/23	1202	2400580	5
Calcium		64.8	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	03/22/23	0428	2400580	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0210	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00425	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00362	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.148	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		444	2.38	10.0	mg/L			CH6	03/20/23	1350	2400767	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	03/21/23	1135	2401400
SW846 3005A	ICP-MS 3005A PREP	JD2	03/20/23	0805	2400579



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: March 28, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I  
Sample ID: 614819001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description		Analyst Comments								
1	SM 4500-H B/SW846 9040C, SM 2550B										
2	EPA 300.0										
3	EPA 300.0										
4	SW846 7470A										
5	SW846 3005A/6020B										
6	SW846 3005A/6020B										
7	SM 2540C										

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: March 28, 2023

Page 1 of 8

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 614819

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2400698										
QC1205349973	614814001	DUP									
Chloride		4.18		4.16	mg/L	0.523		(0%-20%)	HXC1	03/18/23	23:22
Fluoride		0.208		0.212	mg/L	1.71	^	(+/-0.100)			
Sulfate		81.8		81.6	mg/L	0.232		(0%-20%)		03/20/23	13:28
QC1205349975	614819001	DUP									
Chloride		5.71		5.74	mg/L	0.484		(0%-20%)		03/19/23	07:35
Fluoride		0.209		0.219	mg/L	4.68	^	(+/-0.100)			
Sulfate		274		276	mg/L	0.873		(0%-20%)		03/20/23	16:34
QC1205349972	LCS										
Chloride	5.00			4.85	mg/L			96.9 (90%-110%)		03/18/23	22:20
Fluoride	2.50			2.50	mg/L			100 (90%-110%)			
Sulfate	10.0			10.0	mg/L			100 (90%-110%)			
QC1205349971	MB										
Chloride			U	ND	mg/L					03/18/23	21:49
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205349974	614814001	PS									
Chloride	5.00	4.18		9.77	mg/L			112* (90%-110%)		03/18/23	23:52

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## QC Summary

Workorder: 614819

Page 2 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2400698										
Fluoride	2.50	0.208		2.74	mg/L		101	(90%-110%)	HXC1	03/18/23	23:52
Sulfate	10.0	16.4		27.4	mg/L		110	(90%-110%)		03/20/23	13:59
QC1205349976	614819001 PS										
Chloride	5.00	5.71		11.5	mg/L		116*	(90%-110%)		03/19/23	08:06
Fluoride	2.50	0.209		2.72	mg/L		101	(90%-110%)			
Sulfate	10.0	13.7		24.7	mg/L		110	(90%-110%)		03/20/23	17:04
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
QC1205349725	LCS										
Antimony	0.0500			0.0499	mg/L		99.7	(80%-120%)	BAJ	03/22/23	03:12
Arsenic	0.0500			0.0495	mg/L		99	(80%-120%)			
Barium	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Beryllium	0.0500			0.0551	mg/L		110	(80%-120%)			
Boron	0.100			0.108	mg/L		108	(80%-120%)		03/22/23	11:23
Cadmium	0.0500			0.0509	mg/L		102	(80%-120%)		03/22/23	03:12
Calcium	2.00			2.16	mg/L		108	(80%-120%)			
Chromium	0.0500			0.0518	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0492	mg/L		98.4	(80%-120%)			

# GEL LABORATORIES LLC

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## *QC Summary*

Workorder: 614819

Page 3 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Lead	0.0500			0.0503	mg/L		101	(80%-120%)	BAJ	03/22/23	03:12
Lithium	0.0500			0.0525	mg/L		105	(80%-120%)			
Molybdenum	0.0500			0.0522	mg/L		104	(80%-120%)			
Selenium	0.0500			0.0495	mg/L		98.9	(80%-120%)			
Thallium	0.0500			0.0483	mg/L		96.6	(80%-120%)			
QC1205349724	MB										
Antimony			U	ND	mg/L					03/22/23	03:08
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					03/22/23	11:22
Cadmium			U	ND	mg/L					03/22/23	03:08
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						

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## QC Summary

Workorder: 614819

Page 4 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Lithium			U	ND	mg/L				BAJ	03/22/23	03:08
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205349726 614814001 MS											
Antimony	0.0500	U	ND	0.0483	mg/L		96.2	(75%-125%)		03/22/23	03:19
Arsenic	0.0500	U	ND	0.0481	mg/L		94.9	(75%-125%)			
Barium	0.0500		0.0179	0.0665	mg/L		97.1	(75%-125%)			
Beryllium	0.0500	U	ND	0.0525	mg/L		105	(75%-125%)			
Boron	0.100		0.421	0.521	mg/L		N/A	(75%-125%)		03/22/23	11:53
Cadmium	0.0500	U	ND	0.0487	mg/L		97.3	(75%-125%)		03/22/23	03:19
Calcium	2.00		26.2	28.2	mg/L		N/A	(75%-125%)			
Chromium	0.0500	J	0.00415	0.0527	mg/L		97	(75%-125%)			
Cobalt	0.0500		0.00108	0.0481	mg/L		94	(75%-125%)			
Lead	0.0500	U	ND	0.0484	mg/L		96.5	(75%-125%)			
Lithium	0.0500	U	ND	0.0529	mg/L		100	(75%-125%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 614819

Page 5 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Molybdenum	0.0500	J	0.000235	0.0504	mg/L		100	(75%-125%)	BAJ	03/22/23	03:19
Selenium	0.0500	U	ND	0.0470	mg/L		92.8	(75%-125%)			
Thallium	0.0500	U	ND	0.0470	mg/L		93.9	(75%-125%)			
QC1205349727	614814001 MSD										
Antimony	0.0500	U	ND	0.0497	mg/L	2.84	99	(0%-20%)		03/22/23	03:23
Arsenic	0.0500	U	ND	0.0484	mg/L	0.588	95.4	(0%-20%)			
Barium	0.0500		0.0179	0.0669	mg/L	0.675	98	(0%-20%)			
Beryllium	0.0500	U	ND	0.0525	mg/L	0.107	105	(0%-20%)			
Boron	0.100		0.421	0.550	mg/L	5.31	N/A	(0%-20%)		03/22/23	11:55
Cadmium	0.0500	U	ND	0.0505	mg/L	3.67	101	(0%-20%)		03/22/23	03:23
Calcium	2.00		26.2	28.0	mg/L	0.925	N/A	(0%-20%)			
Chromium	0.0500	J	0.00415	0.0519	mg/L	1.43	95.5	(0%-20%)			
Cobalt	0.0500		0.00108	0.0483	mg/L	0.417	94.4	(0%-20%)			
Lead	0.0500	U	ND	0.0495	mg/L	2.31	98.8	(0%-20%)			
Lithium	0.0500	U	ND	0.0535	mg/L	1.07	102	(0%-20%)			
Molybdenum	0.0500	J	0.000235	0.0527	mg/L	4.47	105	(0%-20%)			

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 614819

Page 6 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Selenium	0.0500	U	ND	0.0483	mg/L	2.71	95.4	(0%-20%)	BAJ	03/22/23	03:23
Thallium	0.0500	U	ND	0.0476	mg/L	1.32	95.2	(0%-20%)			
QC1205349728	614814001	SDILT									
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/22/23	03:30
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			17.9	J	3.66	ug/L	2.08	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			84.2		24.1	ug/L	43.2	(0%-20%)		03/22/23	11:58
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		03/22/23	03:30
Calcium			26200		5390	ug/L	2.93	(0%-20%)			
Chromium		J	4.15	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			1.08	U	ND	ug/L	N/A	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lithium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Molybdenum		J	0.235	U	ND	ug/L	N/A	(0%-20%)			
Selenium		U	ND	U	ND	ug/L	N/A	(0%-20%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 614819

Page 7 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2400580										
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	03/22/23	03:30
<b>Metals Analysis-Mercury</b>											
Batch	2401401										
QC1205351499	614827014	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	03/22/23	11:05
QC1205351498	LCS										
Mercury	0.00200			0.00201	mg/L		100	(80%-120%)		03/22/23	10:34
QC1205351497	MB										
Mercury			U	ND	mg/L					03/22/23	10:33
QC1205351500	614827014	MS									
Mercury	0.00200	U	ND	0.00199	mg/L		99.4	(75%-125%)		03/22/23	11:10
QC1205351501	614827014	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		03/22/23	11:12
<b>Solids Analysis</b>											
Batch	2400767										
QC1205350114	614485002	DUP									
Total Dissolved Solids			265	268	mg/L	1.13		(0%-5%)	CH6	03/20/23	13:50
QC1205350113	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		03/20/23	13:50
QC1205350112	MB										
Total Dissolved Solids			U	ND	mg/L					03/20/23	13:50

**Notes:**

The Qualifiers in this report are defined as follows:

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.



# GEL LABORATORIES LLC

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## *QC Summary*

Workorder: 614819

Page 8 of 8

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J											
X											
N											
H											
<											
>											
h											
R											
Z											
d											
^											
N/A											
ND											
E											
NJ											
E											
Q											
FB											
N1											
Y											
R											
B											
e											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 614819**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2400580

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2400579

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205349724	Method Blank (MB)ICP-MS
1205349725	Laboratory Control Sample (LCS)
1205349728	614814001(BRA-BRLFC-01L) Serial Dilution (SD)
1205349726	614814001(BRA-BRLFC-01S) Matrix Spike (MS)
1205349727	614814001(BRA-BRLFC-01SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 614819001 (BRA-PZ-69I) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	614819
	001
Boron	10X
Calcium	10X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2401401

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2401400

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205351497	Method Blank (MB)CVAA
1205351498	Laboratory Control Sample (LCS)
1205351501	614827014(NonSDGL) Serial Dilution (SD)
1205351499	614827014(NonSDGD) Sample Duplicate (DUP)
1205351500	614827014(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 30

**Analytical Batch:** 2400698

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205349971	Method Blank (MB)
1205349972	Laboratory Control Sample (LCS)
1205349973	614814001(BRA-BRLFC-01) Sample Duplicate (DUP)
1205349974	614814001(BRA-BRLFC-01) Post Spike (PS)
1205349975	614819001(BRA-PZ-69I) Sample Duplicate (DUP)
1205349976	614819001(BRA-PZ-69I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205349974 (BRA-BRLFC-01PS)	112* (90%-110%)
	1205349976 (BRA-PZ-69IPS)	116* (90%-110%)

**Technical Information**

**Sample Dilutions**

The following samples 1205349973 (BRA-BRLFC-01DUP), 1205349974 (BRA-BRLFC-01PS), 1205349975 (BRA-PZ-69IDUP), 1205349976 (BRA-PZ-69IPS) and 614819001 (BRA-PZ-69I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>614819</b>
	<b>001</b>
Sulfate	20X

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2400767

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614819001	BRA-PZ-69I
1205350112	Method Blank (MB)
1205350113	Laboratory Control Sample (LCS)
1205350114	614485002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
**Chain of Custody and Analytical Request**  
*GEL Project Manager: Erin Trent*

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Work Order Number:** \_\_\_\_\_  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: J. Johnson ACC  
 Send Results To: SCS & Geosyntec Contacts

**Sample ID**  
 \*For composites - indicate start and stop date/time

*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	OC Code (2)	Field Filtered (3)	Sample Matrix (4)
03/16/23	1000	G	N	WG

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>J. Johnson</u>	3-17-23	0802	<u>Erin Trent</u>	3-17-2023	0800

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 0 °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive  TSCA Regulated PCB = Polychlorinated biphenyls	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: GEL SDG/AR/COC/Work Order: 614819 / 614823  
 Received By: MVH Date Received: 3.17.2023

Carrier and Tracking Number  
 FedEx Express FedEx Ground UPS Field Services Courier Other  
001181-1 001182-1 001183-0 001184-0

<b>Suspected Hazard Information</b>	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>00</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <b>TEMP: _____</b>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials MG Date 3/20/23 Page 1 of 1

**List of current GEL Certifications as of 28 March 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780





April 17, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 614823

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 17, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 614823 GEL Work Order: 614823

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
 Address : Company  
 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: April 17, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-69I  
 Sample ID: 614823001  
 Matrix: WG  
 Collect Date: 16-MAR-23  
 Receive Date: 17-MAR-23  
 Collector: Client

Project: GPCC00101  
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.507	+/-1.10	1.94	+/-1.10	3.00	pCi/L			JE1	04/06/23	1003	2406247	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.676	+/-1.16	1.94	+/-1.17		pCi/L		1	NXL1	04/17/23	0835	2406246	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.169	+/-0.370	0.682	+/-0.371	1.00	pCi/L			LXP1	04/16/23	0840	2406187	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2406247	78.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 614823**

**Product:** Radium-226+Radium-228 Calculation

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2406246

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614823001	BRA-PZ-69I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** GFPC Ra228, Liquid

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2406247

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614823001	BRA-PZ-69I
1205361117	Method Blank (MB)
1205361118	614578001(BRA-BRLFC-16) Sample Duplicate (DUP)
1205361119	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Recounts**

Sample 1205361119 (LCS) was recounted due to low recovery. The recount is reported.

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2406187

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
614823001	BRA-PZ-69I
1205361006	Method Blank (MB)
1205361007	614578001(BRA-BRLFC-16) Sample Duplicate (DUP)
1205361008	614578001(BRA-BRLFC-16) Matrix Spike (MS)
1205361009	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date:** April 17, 2023  
**Page 1 of 2**

Atlanta, Georgia

**Contact:** Joju Abraham

**Workorder:** 614823

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	2406247										
QC1205361118	614578001 DUP										
Radium-228	U	-0.489	U	0.0301	pCi/L	0		N/A	JE1	04/06/23	10:02
	Uncert:	+/-0.883		+/-0.802							
	TPU:	+/-0.883		+/-0.802							
QC1205361119	LCS										
Radium-228	82.6			64.1	pCi/L		77.6	(75%-125%)	JE1	04/06/23	12:04
	Uncert:			+/-5.65							
	TPU:			+/-17.2							
QC1205361117	MB										
Radium-228			U	0.660	pCi/L				JE1	04/06/23	10:02
	Uncert:			+/-0.882							
	TPU:			+/-0.897							
<b>Rad Ra-226</b>											
Batch	2406187										
QC1205361007	614578001 DUP										
Radium-226	U	0.447		0.743	pCi/L	49.8		(0% - 100%)	LXP1	04/16/23	08:40
	Uncert:	+/-0.429		+/-0.374							
	TPU:	+/-0.441		+/-0.395							
QC1205361009	LCS										
Radium-226	26.5			21.6	pCi/L		81.6	(75%-125%)	LXP1	04/16/23	08:40
	Uncert:			+/-1.98							
	TPU:			+/-5.32							
QC1205361006	MB										
Radium-226			U	0.463	pCi/L				LXP1	04/16/23	08:40
	Uncert:			+/-0.416							
	TPU:			+/-0.422							
QC1205361008	614578001 MS										
Radium-226	127	U	0.447	106	pCi/L		83.8	(75%-125%)	LXP1	04/16/23	08:40
	Uncert:		+/-0.429	+/-9.01							
	TPU:		+/-0.441	+/-21.4							

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 614823

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI										
BD										
h										
R										
^										
N/A										
ND										
M										
NJ										
FA										
UJ										
Q										
K										
UL										
L										
N1										
Y										
**										
M										
J										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: 614823  
 GEL Project Manager: Erin Trent

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: T. Johnson ACC  
 Send Results To: SCS & Geosyntec Contacts

Phone # 404-506-7116  
 Fax #  
 Sample ID  
 \* For composites - indicate start and stop date/time

Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)
Radioactive (If yes, please supply isotopic info)	6	CL F, SO4, TDS EPA 300, SM 2540C App IIIIV Metals* EPA 6020, 6010, 7470 Radum 226 & 228 SW-846 9313, 9320	<-- Preservative Type (6)
(7) Known or possible Hazards			Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SIRI
			field pH = <u>5.92</u>

TAT Requested: Normal:  Rush:  Specify:  (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 0 °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>T. Johnson</u>	<u>3-17-23</u>	<u>0802</u>	<u>[Signature]</u>	<u>3-17-23</u>	<u>0803</u>

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SF=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

**RCRA Metals**  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

**Characteristic Hazards**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

**Listed Waste**  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s):

**Other**  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

TSCA Regulated  
 PCB = Polychlorinated biphenyls



SAMPLE RECEIPT & REVIEW FORM <sup>ET</sup>

Client: <u>GEL</u>		SDG/AR/COC/Work Order: <u>614819 / 614823</u>			
Received By: <u>MVH</u>		Date Received: <u>3/17/2023</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other <u>COOL1-1 COOL2-1 COOL3-0 COOL4-0</u>			
Suspected Hazard Information		Yes	No		
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.		
A) Shipped as a DOT Hazardous?			<input checked="" type="checkbox"/> Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?			<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>00</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?			<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?			If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:		
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: _____</span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR2-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Preservation added, Lot#:
					If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
					Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials MG Date 3/20/23 Page 1 of 1

**List of current GEL Certifications as of 17 April 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



May 26, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 621821

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 12, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Please see attached email regarding a change in Sample ID. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 621821 GEL Work Order: 621821

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-711 Project: GPCC00101  
Sample ID: 621821001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 11-MAY-23 08:15  
Receive Date: 12-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.41			SU			EOS1	05/11/23	0815	2428140	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	05/11/23	0815	2428140	2
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.08	0.0670	0.200	mg/L		1	JLD1	05/12/23	1051	2428256	3
Fluoride		0.175	0.0330	0.100	mg/L		1					
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Sulfate		262	6.65	20.0	mg/L		50	JLD1	05/12/23	2023	2428256	4
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	05/15/23	1047	2428104	5
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.10	0.104	0.300	mg/L	1.00	20	PRB	05/13/23	1517	2428157	6
Calcium		64.3	1.60	4.00	mg/L	1.00	20					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	05/12/23	2257	2428157	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0921	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00285	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0557	0.0330	0.100	mg/L	1.00	1					
Lead	J	0.000526	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Magnesium		27.7	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.424	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	J	0.000948	0.000200	0.00100	mg/L	1.00	1					
Potassium		8.07	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0539	0.00150	0.00500	mg/L	1.00	1					
Sodium		27.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-711 Project: GPCC00101  
Sample ID: 621821001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		446	2.38	10.0	mg/L			CH6	05/16/23	1417	2428760	8
Spectrometric Analysis												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	HH2	05/15/23	1133	2427582	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		53.4	0.725	2.00	mg/L			MS3	05/25/23	1910	2435075	10
Bicarbonate alkalinity (CaCO3)		53.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

### The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	05/12/23	1220	2428103
SW846 3005A	ICP-MS 3005A PREP	JD2	05/12/23	0850	2428156

### The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	SW846 7470A	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	
9	SM 4500-S (2-) D	
10	SM 2320B	

### Notes:

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

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Client Sample ID:	BRA-PZ-711	Project:	GPCC00101
Sample ID:	621821001	Client ID:	GPCC001

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 26, 2023

Page 1 of 11

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 621821

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2428256										
QC1205403295	621606008	DUP									
Chloride		4.82		4.84	mg/L	0.335		(0%-20%)	JLD1	05/12/23	19:19
Fluoride	J	0.0503	J	0.0497	mg/L	1.2	^	(+/-0.100)			
Nitrate-N		15.9		15.9	mg/L	0.0378		(0%-20%)		05/15/23	18:16
Sulfate		2.96		2.90	mg/L	2.24		(0%-20%)		05/12/23	19:19
QC1205403294	LCS										
Chloride	5.00			4.79	mg/L		95.7	(90%-110%)		05/12/23	18:47
Fluoride	2.50			2.55	mg/L		102	(90%-110%)			
Nitrate-N	2.50			2.40	mg/L		96.1	(90%-110%)			
Sulfate	10.0			10.0	mg/L		100	(90%-110%)			
QC1205403293	MB										
Chloride			U	ND	mg/L					05/12/23	18:15
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205403296	621606008	PS									
Chloride	5.00	4.82		10.2	mg/L		108	(90%-110%)		05/12/23	19:51



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## QC Summary

Workorder: 621821

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2428256										
Fluoride	2.50	J	0.0503	2.62	mg/L		103	(90%-110%)	JLD1	05/12/23	19:51
Nitrate-N	2.50		1.59	4.20	mg/L		104	(90%-110%)		05/15/23	18:48
Sulfate	10.0		2.96	13.2	mg/L		102	(90%-110%)		05/12/23	19:51
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
QC1205403058	LCS										
Antimony	0.0500			0.0496	mg/L		99.2	(80%-120%)	PRB	05/12/23	22:53
Arsenic	0.0500			0.0485	mg/L		97	(80%-120%)			
Barium	0.0500			0.0532	mg/L		106	(80%-120%)			
Beryllium	0.0500			0.0532	mg/L		106	(80%-120%)			
Boron	0.100			0.101	mg/L		101	(80%-120%)		05/13/23	15:15
Cadmium	0.0500			0.0501	mg/L		100	(80%-120%)		05/12/23	22:53
Calcium	2.00			2.09	mg/L		104	(80%-120%)		05/13/23	15:15
Chromium	0.0500			0.0479	mg/L		95.9	(80%-120%)		05/12/23	22:53
Cobalt	0.0500			0.0489	mg/L		97.8	(80%-120%)			
Iron	2.00			1.98	mg/L		99.2	(80%-120%)			
Lead	0.0500			0.0486	mg/L		97.3	(80%-120%)			

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## QC Summary

Workorder: 621821

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Lithium	0.0500			0.0503	mg/L		101	(80%-120%)	PRB	05/12/23	22:53
Magnesium	2.00			2.03	mg/L		102	(80%-120%)			
Manganese	0.0500			0.0490	mg/L		98	(80%-120%)			
Molybdenum	0.0500			0.0515	mg/L		103	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Selenium	0.0500			0.0491	mg/L		98.2	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0473	mg/L		94.7	(80%-120%)			
QC1205403057	MB										
Antimony			U	ND	mg/L					05/12/23	22:49
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					05/13/23	15:13
Cadmium			U	ND	mg/L					05/12/23	22:49
Calcium			U	ND	mg/L					05/13/23	15:13

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## QC Summary

Workorder: 621821

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Chromium			U	ND	mg/L				PRB	05/12/23	22:49
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205403059 621821001 MS											
Antimony	0.0500	U	ND	0.0523	mg/L		104	(75%-125%)		05/12/23	23:00
Arsenic	0.0500	U	ND	0.0505	mg/L		99.2	(75%-125%)			
Barium	0.0500		0.0921	0.147	mg/L		110	(75%-125%)			

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## QC Summary

Workorder: 621821

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Beryllium	0.0500	U	ND	0.0568	mg/L		114	(75%-125%)	PRB	05/12/23	23:00
Boron	0.100		1.10	1.24	mg/L		N/A	(75%-125%)		05/13/23	15:19
Cadmium	0.0500	U	ND	0.0523	mg/L		105	(75%-125%)		05/12/23	23:00
Calcium	2.00		64.3	67.3	mg/L		N/A	(75%-125%)		05/13/23	15:19
Chromium	0.0500	U	ND	0.0505	mg/L		100	(75%-125%)		05/12/23	23:00
Cobalt	0.0500		0.00285	0.0530	mg/L		100	(75%-125%)			
Iron	2.00	J	0.0557	2.09	mg/L		102	(75%-125%)			
Lead	0.0500	J	0.000526	0.0497	mg/L		98.3	(75%-125%)			
Lithium	0.0500	U	ND	0.0552	mg/L		108	(75%-125%)			
Magnesium	2.00		27.7	30.2	mg/L		N/A	(75%-125%)			
Manganese	0.0500		0.424	0.482	mg/L		N/A	(75%-125%)			
Molybdenum	0.0500	J	0.000948	0.0562	mg/L		111	(75%-125%)			
Potassium	2.00		8.07	10.2	mg/L		N/A	(75%-125%)			
Selenium	0.0500		0.0539	0.103	mg/L		97.9	(75%-125%)			
Sodium	2.00		27.1	30.1	mg/L		N/A	(75%-125%)			

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## QC Summary

Workorder: 621821

Page 6 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Thallium	0.0500	U	ND	0.0487	mg/L		97.3	(75%-125%)	PRB	05/12/23	23:00
QC1205403060	621821001 MSD										
Antimony	0.0500	U	ND	0.0532	mg/L	1.78	106	(0%-20%)		05/12/23	23:04
Arsenic	0.0500	U	ND	0.0519	mg/L	2.73	102	(0%-20%)			
Barium	0.0500		0.0921	0.147	mg/L	0.305	110	(0%-20%)			
Beryllium	0.0500	U	ND	0.0583	mg/L	2.61	117	(0%-20%)			
Boron	0.100		1.10	1.21	mg/L	2.36	N/A	(0%-20%)		05/13/23	15:21
Cadmium	0.0500	U	ND	0.0524	mg/L	0.134	105	(0%-20%)		05/12/23	23:04
Calcium	2.00		64.3	67.8	mg/L	0.672	N/A	(0%-20%)		05/13/23	15:21
Chromium	0.0500	U	ND	0.0515	mg/L	1.83	102	(0%-20%)		05/12/23	23:04
Cobalt	0.0500		0.00285	0.0535	mg/L	0.948	101	(0%-20%)			
Iron	2.00	J	0.0557	2.11	mg/L	1.09	103	(0%-20%)			
Lead	0.0500	J	0.000526	0.0504	mg/L	1.49	99.8	(0%-20%)			
Lithium	0.0500	U	ND	0.0566	mg/L	2.62	111	(0%-20%)			
Magnesium	2.00		27.7	30.6	mg/L	1.58	N/A	(0%-20%)			
Manganese	0.0500		0.424	0.486	mg/L	0.81	N/A	(0%-20%)			

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## QC Summary

Workorder: 621821

Page 7 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Molybdenum	0.0500	J	0.000948	0.0583	mg/L	3.55	115	(0%-20%)	PRB	05/12/23	23:04
Potassium	2.00		8.07	10.4	mg/L	1.61	N/A	(0%-20%)			
Selenium	0.0500		0.0539	0.106	mg/L	3.39	105	(0%-20%)			
Sodium	2.00		27.1	30.1	mg/L	0.204	N/A	(0%-20%)			
Thallium	0.0500	U	ND	0.0479	mg/L	1.68	95.7	(0%-20%)			
QC1205403061	621821001	SDILT									
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/12/23	23:11
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			92.1	16.9	ug/L	8.27		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			55.2	J	10.9	ug/L	1.19	(0%-20%)		05/13/23	15:23
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/12/23	23:11
Calcium			3210		712	ug/L	10.8	(0%-20%)		05/13/23	15:23
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/12/23	23:11
Cobalt			2.85	J	0.601	ug/L	5.36	(0%-20%)			
Iron		J	55.7	U	ND	ug/L	N/A	(0%-20%)			

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## QC Summary

Workorder: 621821

Page 8 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2428157										
Lead	J	0.526	U	ND	ug/L	N/A		(0%-20%)	PRB	05/12/23	23:11
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		27700		5760	ug/L	3.85		(0%-20%)			
Manganese		424		88.6	ug/L	4.43		(0%-20%)			
Molybdenum	J	0.948	J	0.202	ug/L	6.54		(0%-20%)			
Potassium		8070		1610	ug/L	.17		(0%-20%)			
Selenium		53.9		10.6	ug/L	1.26		(0%-20%)			
Sodium		27100		5610	ug/L	3.49		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2428104										
QC1205402965	621542022	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	05/15/23	10:06
QC1205402964	LCS										
Mercury	0.00200			0.00180	mg/L		89.8	(80%-120%)		05/15/23	10:01
QC1205402963	MB										
Mercury			U	ND	mg/L					05/15/23	09:59
QC1205402966	621542022	MS									
Mercury	0.00200	U	ND	0.00185	mg/L		92.5	(75%-125%)		05/15/23	10:07

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## QC Summary

Workorder: 621821

Page 9 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2428104										
QC1205402967	621542022	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	JP2	05/15/23	10:09
<b>Solids Analysis</b>											
Batch	2428760										
QC1205404433	621624015	DUP									
Total Dissolved Solids		270		295	mg/L	8.85*		(0%-5%)	CH6	05/16/23	14:17
QC1205404432	LCS										
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		05/16/23	14:17
QC1205404431	MB										
Total Dissolved Solids			U	ND	mg/L					05/16/23	14:17
<b>Spectrometric Analysis</b>											
Batch	2427582										
QC1205402049	LCS										
Total Sulfide	0.400			0.395	mg/L		98.8	(85%-115%)	HH2	05/15/23	11:25
QC1205402048	MB										
Total Sulfide			U	ND	mg/L					05/15/23	11:25
QC1205402050	621227011	PS									
Total Sulfide	0.400	U	ND	0.339	mg/L		83.4	(75%-125%)		05/15/23	11:25
QC1205402051	621227011	PSD									
Total Sulfide	0.400	U	ND	0.328	mg/L	3.42	80.5	(0%-15%)		05/15/23	11:25
<b>Titration and Ion Analysis</b>											
Batch	2435075										
QC1205416877	621821001	DUP									
Alkalinity, Total as CaCO3		53.4		52.9	mg/L	0.941		(0%-20%)	MS3	05/25/23	19:14
Bicarbonate alkalinity (CaCO3)		53.4		52.9	mg/L	0.941		(0%-20%)			



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## QC Summary

Workorder: 621821

Page 10 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2435075										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A			MS3	05/25/23	19:14
QC1205416876 LCS											
Alkalinity, Total as CaCO3	50.0			49.9	mg/L		99.8	(90%-110%)		05/25/23	19:07
QC1205416878 621821001 MS											
Alkalinity, Total as CaCO3	50.0	53.4		105	mg/L		104	(80%-120%)		05/25/23	19:16

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.

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## QC Summary

Workorder: 621821

Page 11 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B		The target analyte was detected in the associated blank.									
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
J		See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 621821**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2428157

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2428156

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205403057	Method Blank (MB)ICP-MS
1205403058	Laboratory Control Sample (LCS)
1205403061	621821001(BRA-PZ-71IL) Serial Dilution (SD)
1205403059	621821001(BRA-PZ-71IS) Matrix Spike (MS)
1205403060	621821001(BRA-PZ-71ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 621821001 (BRA-PZ-71I) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>621821</b>
	<b>001</b>
Boron	20X
Calcium	20X

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2428104

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2428103

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-711
1205402963	Method Blank (MB)CVAA
1205402964	Laboratory Control Sample (LCS)
1205402967	621542022(NonSDGL) Serial Dilution (SD)
1205402965	621542022(NonSDGD) Sample Duplicate (DUP)
1205402966	621542022(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2428256

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-711
1205403293	Method Blank (MB)
1205403294	Laboratory Control Sample (LCS)
1205403295	621606008(NonSDG) Sample Duplicate (DUP)
1205403296	621606008(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

## Technical Information

### **Sample Dilutions**

The following samples 1205403295 (Non SDG 621606008DUP), 1205403296 (Non SDG 621606008PS) and 621821001 (BRA-PZ-71I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	621821
	001
Sulfate	50X

## Miscellaneous Information

### **Manual Integrations**

Samples 1205403295 (Non SDG 621606008DUP) and 621821001 (BRA-PZ-71I) were manually integrated to correctly position the baseline as set in the calibration standards.

### **Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2428760

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205404431	Method Blank (MB)
1205404432	Laboratory Control Sample (LCS)
1205404433	621624015(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Total Dissolved Solids	1205404433 (Non SDG 621624015DUP)	8.85* (0%-5%)

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205404433 (Non SDG 621624015DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2427582

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205402048	Method Blank (MB)
1205402049	Laboratory Control Sample (LCS)
1205402050	621227011(NonSDG) Post Spike (PS)
1205402051	621227011(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2435075

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
621821001	BRA-PZ-71I
1205416876	Laboratory Control Sample (LCS)
1205416877	621821001(BRA-PZ-71I) Sample Duplicate (DUP)
1205416878	621821001(BRA-PZ-71I) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: 1 of 1  
 Project # 621821  
 GEL Quote #: 621822  
 COC Number (1):  
 PO Number:  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: A Schwab ACC  
 Send Results To: SCS & Geosyntec Contacts

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: 621822  
 GEL Project Manager: Erin Trent  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 756-1178

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments
						Radioactive (if isotopic info.)	(7) Known or possible hazards		Metals *	EPA 6020, 6010, 7470	Radium 226 & 228	SW-846 9315, 9320	Sulfide SM 4500	
BRA-PZ-71	05/11/23	0815	G	N	WG	N	N	8	✓	✓	✓	✓	✓	field pH = <u>6.41</u> field ferrous iron = <u>0.0</u>

**Chain of Custody Signatures**  
 Relinquished By (Signed) Date Time Received by (signed) Date Time  
 1. [Signature] 5/12/23 0806 [Signature] 5/12/23 8:00  
 2. [Signature] [Signature]  
 3. [Signature] [Signature]

TAT Requested: boron and selenium data due 5/16/2023; standard TAT for final report  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \* Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Fe, Mg, Mn, K, Na, Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: 1 °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 Characteristic Hazards  
 Listed Waste  
 LW = Listed Waste (F, K, P and U-listed wastes.)  
 Waste code(s):  
 Other  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description:  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)





## Erin Trent

---

**From:** Lauren Fitzgerald <LAFitzgerald@Geosyntec.com>  
**Sent:** Monday, May 22, 2023 4:23 PM  
**To:** Erin Trent; Team Trent  
**Cc:** Midkiff, Laura B.; jbraham@southernco.com; Joseph Ivanowski; Courtney Collins  
**Subject:** FW: GEL Sample Receipt 622760 for Branch CCR Groundwater Compliance  
**Attachments:** 622760coclr.pdf; 621821coclr.pdf; 621822coclr.pdf

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Erin,

Apologies for the delay in getting this change to you. For the new piezometer samples that you are analyzing, we need to make a slight change in the label from PZ-71 to PZ-71I. Please see attached the three logins that need to be updated as a result. If you need the revised COCs, please let me know.

Please let me know if you have any questions.

Thank you,  
Lauren

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**From:** GEL Data <data@gellaboratories.com>  
**Sent:** Friday, May 19, 2023 1:17 PM  
**To:** jbraham@southernco.com; betsy.mcdaniel@atlcc.net; Chris.parker@atlcc.net; monte.jones@atlcc.net; Lauren Fitzgerald <LAFitzgerald@Geosyntec.com>; Kendall Brome <Kendall.Brome@Geosyntec.com>; KNJURINK@SOUTHERNCO.COM; MJSMILLE@SOUTHERNCO.COM; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com; Courtney Collins <CCollins@Geosyntec.com>  
**Subject:** GEL Sample Receipt 622760 for Branch CCR Groundwater Compliance

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you have any suspicion, please confirm with the sender verbally that this email is authentic. If you suspect fraud, click "Phish Alert Report."

GEL Laboratories, LLC received sample(s) on May 18, 2023. The final data is due to report on May 23, 2023. Please review the attached PDF. Should you find any discrepancies within the document, please call or email your project manager Erin Trent.

Do not reply to [data@gellaboratories.com](mailto:data@gellaboratories.com) as this email address is not monitored. Please contact your project manager, Erin Trent, at [Team.Trent@gel.com](mailto:Team.Trent@gel.com) regarding this message or its attachments.

**List of current GEL Certifications as of 26 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



May 23, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 622760

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 18, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Please see attached email regarding a change in Sample ID. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 622760 GEL Work Order: 622760

**The Qualifiers in this report are defined as follows:**

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a Tracer compound

\*\* Analyte is a surrogate compound

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 23, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-71I Project: GPCC00101  
Sample ID: 622760001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 18-MAY-23 08:20  
Receive Date: 18-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Selenium		0.0539	0.00150	0.00500	mg/L	1.00	1	PRB	05/21/23	1051	2431468	1
Boron		1.18	0.0520	0.150	mg/L	1.00	10	PRB	05/21/23	1113	2431468	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	05/19/23	0730	2431467

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 23, 2023

Page 1 of 2

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 622760

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2431468										
QC1205409898	LCS										
Boron	0.100			0.101	mg/L		101	(80%-120%)	PRB	05/21/23	10:49
Selenium	0.0500			0.0503	mg/L		101	(80%-120%)			
QC1205409897	MB										
Boron			U	ND	mg/L					05/21/23	11:10
Selenium			U	ND	mg/L						
QC1205409899	622760001	MS									
Boron	0.100	1.18		1.32	mg/L		N/A	(75%-125%)		05/21/23	11:15
Selenium	0.0500	0.0539		0.102	mg/L		96.4	(75%-125%)		05/21/23	10:54
QC1205409900	622760001	MSD									
Boron	0.100	1.18		1.29	mg/L	2.13	N/A	(0%-20%)		05/21/23	11:18
Selenium	0.0500	0.0539		0.102	mg/L	0.581	95.2	(0%-20%)		05/21/23	10:56
QC1205409901	622760001	SDILT									
Boron		118		27.3	ug/L	15.4		(0%-20%)		05/21/23	11:20
Selenium		53.9		10.5	ug/L	2.99		(0%-20%)		05/21/23	11:01

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## *QC Summary*

Workorder: 622760

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N		Metals--The Matrix spike sample recovery is not within specified control limits									
H		Analytical holding time was exceeded									
<		Result is less than value reported									
>		Result is greater than value reported									
h		Preparation or preservation holding time was exceeded									
R		Sample results are rejected									
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
N/A		RPD or %Recovery limits do not apply.									
ND		Analyte concentration is not detected above the detection limit									
E		%difference of sample and SD is >10%. Sample concentration must meet flagging criteria									
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Q		One or more quality control criteria have not been met. Refer to the applicable narrative or DER.									
FB		Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies									
NI		See case narrative									
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.									
J		See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
 ^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.  
 For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 622760**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2431468

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2431467

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
622760001	BRA-PZ-71
1205409897	Method Blank (MB)ICP-MS
1205409898	Laboratory Control Sample (LCS)
1205409901	622760001(BRA-PZ-71L) Serial Dilution (SD)
1205409899	622760001(BRA-PZ-71S) Matrix Spike (MS)
1205409900	622760001(BRA-PZ-71SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

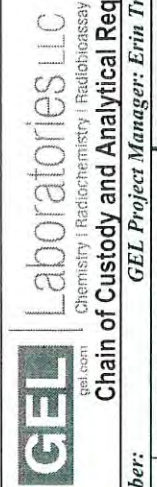
**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 622760001 (BRA-PZ-71) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	<b>622760</b>
	<b>001</b>
Boron	10X

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



622760  
**GEL Work Order Number:**  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *J. Beersford* ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (b)	Field Filtered (h)	Sample Matrix (h)
BRA-PZ-71	05/18/23	0820	G	N	WG

Should this sample be considered:	Total number of containers		Preservative Type (6)	Comments
	(7) Known or possible Hazards	Isotopic Info. (yes, please supply)		
Metals * EPA 6020	1	✓		Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1R1 field pH = 6.09

Rush TAT Requested: boron and selenium data due 5/23/2023

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	5/17/23		<i>[Signature]</i>	5/18/23	3:47

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or a N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	Hg= Mercury	Listed Waste	Other
As = Arsenic		FL = Flammable/Ignitable	OT = Other / Unknown
Ba = Barium		LW = Listed Waste	(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Cd = Cadmium		CO = Corrosive	Description:
Cr = Chromium		RE = Reactive	
Misc. RCRA metals		Waste code(s):	
Pb = Lead		TSCA Regulated	
		PCB = Polychlorinated biphenyls	

Additional Remarks: \* Metals: B,Se  
 For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: 16c  
 Sample Collection Time Zone: [x] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:  
3c, 4c, 5c



SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPEC</u>		SDG/AR/COC/Work Order: <u>622760, 622762, 622765</u>			
Received By: <u>Thyasia Tatum</u>		Date Received: <u>5/18/23</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier   Other			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>4</u> CPM / mR/Hr Classified as: Rad 1   Rad 2   Rad 3			
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: *all temperatures are recorded in Celsius   TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials AT Date 5/19/23 Page 1 of 1

**List of current GEL Certifications as of 23 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



May 26, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 623143

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 23, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 623143 GEL Work Order: 623143

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

---

Client Sample ID:	BRA-PZ-72I	Project:	GPCC00101
Sample ID:	623143001	Client ID:	GPCC001
Matrix:	WG		
Collect Date:	22-MAY-23 10:21		
Receive Date:	23-MAY-23		
Collector:	Client		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Selenium		0.0938	0.00150	0.00500	mg/L	1.00	1	BAJ	05/24/23	1926	2433109	1
Boron		1.13	0.104	0.300	mg/L	1.00	20	BAJ	05/25/23	0601	2433109	2

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	05/23/23	1545	2433108

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 26, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I Project: GPCC00101  
Sample ID: 623143002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 22-MAY-23 11:15  
Receive Date: 23-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.62	0.104	0.300	mg/L	1.00	20	BAJ	05/25/23	0605	2433109	1
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1	BAJ	05/24/23	1940	2433109	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	05/23/23	1545	2433108

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 26, 2023

Page 1 of 2

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 623143

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2433109										
QC1205413295		LCS									
Boron	0.100			0.101	mg/L		101	(80%-120%)	BAJ	05/25/23	06:00
Selenium	0.0500			0.0492	mg/L		98.4	(80%-120%)		05/24/23	19:23
QC1205413294		MB									
Boron			U	ND	mg/L					05/25/23	05:59
Selenium			U	ND	mg/L					05/24/23	19:21
QC1205413296		623143001	MS								
Boron	0.100		1.13	1.29	mg/L		N/A	(75%-125%)		05/25/23	06:02
Selenium	0.0500		0.0938	0.139	mg/L		91	(75%-125%)		05/24/23	19:29
QC1205413297		623143001	MSD								
Boron	0.100		1.13	1.24	mg/L	4.4	N/A	(0%-20%)		05/25/23	06:03
Selenium	0.0500		0.0938	0.143	mg/L	2.64	98.5	(0%-20%)		05/24/23	19:32
QC1205413298		623143001	SDILT								
Boron			56.5	J	10.5	ug/L	6.74	(0%-20%)		05/25/23	06:04
Selenium			93.8		18.0	ug/L	3.86	(0%-20%)		05/24/23	19:38

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 623143

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N											
H											
<											
>											
h											
R											
^											
N/A											
ND											
E											
NJ											
Q											
FB											
NI											
Y											
J											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 623143**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2433109

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2433108

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
623143001	BRA-PZ-72I
623143002	BRA-PZ-73I
1205413294	Method Blank (MB)ICP-MS
1205413295	Laboratory Control Sample (LCS)
1205413298	623143001(BRA-PZ-72IL) Serial Dilution (SD)
1205413296	623143001(BRA-PZ-72IS) Matrix Spike (MS)
1205413297	623143001(BRA-PZ-72ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	623143	
	001	002
Boron	20X	20X

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Project Manager: Erin Trent**

Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)

Should this sample be considered:  
 (1) Radioactive (if isotopic info) Yes, please supply (7) Known or possible Hazards Total number of containers

Metals \* EPA 6020 NI

Preservative Type (6) <--

Comments  
 Note: extra sample is required for sample specific QC  
 Task Code: BRA-CCR-ASSMT-2023S1

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code <sup>(3)</sup>	Field Filtered <sup>(b)</sup>	Sample Matrix <sup>(a)</sup>	Radioactive (if isotopic info) Yes, please supply (7) Known or possible Hazards	Total number of containers	Metals * EPA 6020	Preservative Type (6)	Comments
BRA-PZ-721	05/22/23	1021	G	N	WG		1	✓		field pH = 5.81
BRA-PZ-731	05/22/23	1115	G	N	WG		1	✓		field pH = 5.64

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date 5/23/23 Time 0848

Received by (signed) \_\_\_\_\_ Date 5/23/23 Time 846

1. *[Signature]* 5/23/23 0848

2. *[Signature]* 5/23/23 846

3. \_\_\_\_\_

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Se

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

Chain of Custody Number = Client Determined

1.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

2.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

3.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

4.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

5.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

6.) **KNOWN OR POSSIBLE HAZARDS**

Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

Listed Waste  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)

Other  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)

TSCA Regulated  
 PCB = Polychlorinated biphenyls

RCRA Metals  
 As = Arsenic Hg = Mercury  
 Ba = Barium Sc = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

623143

Client: <b>GPCC</b>		SDG/AR/COC/Work Order:			
Received By: <b>Stacy Boone</b>		Date Received: <b>05.23.2023</b>			
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other <u>ET</u>			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>  </u> CPM / mR/Hr Classified as: Rad 1    Rad 2    Rad 3			
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. <input checked="" type="checkbox"/> PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other: _____			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Wet Ice    Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius    TEMP: <u>16</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>18822 TR3-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials DB Date 5/24/23 Page 1 of 1

**List of current GEL Certifications as of 26 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780





June 10, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance Reanalysis:  
Work Order: 624176

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 23, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624176 GEL Work Order: 624176

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 10, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance Reanalysis:

Client Sample ID: BRA-PZ-73I Project: GPCC00101  
Sample ID: 624176001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 22-MAY-23 11:15  
Receive Date: 23-MAY-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	06/02/23	1037	2437131	1
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Calcium		66.4	0.800	2.00	mg/L	1.00	10	PRB	06/08/23	1830	2436930	2
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	06/08/23	1758	2436930	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0256	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00131	0.000300	0.00100	mg/L	1.00	1					
Iron		0.219	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0246	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.227	0.00100	0.00500	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Sodium		30.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Magnesium		29.8	0.0100	0.0300	mg/L	1.00	1	PRB	06/09/23	1250	2436930	4
Potassium		6.02	0.0800	0.300	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	06/01/23	0745	2436929
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	06/01/23	1146	2437128

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	

Notes:

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## Certificate of Analysis

Report Date: June 10, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance Reanalysis:

Client Sample ID: BRA-PZ-73I  
Sample ID: 624176001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## QC Summary

Report Date: June 10, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624176

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2436930										
QC1205420340	LCS										
Antimony	0.0500			0.0495	mg/L		99	(80%-120%)	PRB	06/08/23	17:55
Arsenic	0.0500			0.0483	mg/L		96.5	(80%-120%)			
Barium	0.0500			0.0524	mg/L		105	(80%-120%)			
Beryllium	0.0500			0.0558	mg/L		112	(80%-120%)			
Cadmium	0.0500			0.0498	mg/L		99.6	(80%-120%)			
Calcium	2.00			2.12	mg/L		106	(80%-120%)			
Chromium	0.0500			0.0496	mg/L		99.2	(80%-120%)			
Cobalt	0.0500			0.0493	mg/L		98.6	(80%-120%)			
Iron	2.00			2.00	mg/L		100	(80%-120%)			
Lead	0.0500			0.0515	mg/L		103	(80%-120%)			
Lithium	0.0500			0.0536	mg/L		107	(80%-120%)			
Magnesium	2.00			2.05	mg/L		102	(80%-120%)		06/09/23	12:49
Manganese	0.0500			0.0497	mg/L		99.5	(80%-120%)		06/08/23	17:55
Molybdenum	0.0500			0.0540	mg/L		108	(80%-120%)			

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## QC Summary

Workorder: 624176

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Potassium	2.00			2.26	mg/L		113	(80%-120%)	PRB	06/09/23	12:49
Sodium	2.00			2.28	mg/L		114	(80%-120%)		06/08/23	17:55
Thallium	0.0500			0.0509	mg/L		102	(80%-120%)			
QC1205420339	MB										
Antimony			U	ND	mg/L					06/08/23	17:51
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Cadmium			U	ND	mg/L						
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					06/09/23	12:47

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 624176

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Manganese			U	ND	mg/L				PRB	06/08/23	17:51
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					06/09/23	12:47
Sodium			U	ND	mg/L					06/08/23	17:51
Thallium			U	ND	mg/L						
QC1205420341 624176001 MS											
Antimony	0.0500	U	ND	0.0501	mg/L		99.9	(75%-125%)		06/08/23	18:02
Arsenic	0.0500	U	ND	0.0495	mg/L		95.5	(75%-125%)			
Barium	0.0500		0.0256	0.0754	mg/L		99.6	(75%-125%)			
Beryllium	0.0500	U	ND	0.0556	mg/L		111	(75%-125%)			
Cadmium	0.0500	U	ND	0.0500	mg/L		99.9	(75%-125%)			
Calcium	2.00		66.4	65.5	mg/L		N/A	(75%-125%)		06/08/23	18:33
Chromium	0.0500	U	ND	0.0486	mg/L		95.9	(75%-125%)		06/08/23	18:02
Cobalt	0.0500		0.00131	0.0496	mg/L		96.7	(75%-125%)			
Iron	2.00		0.219	2.16	mg/L		96.9	(75%-125%)			
Lead	0.0500	U	ND	0.0500	mg/L		99.8	(75%-125%)			

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## QC Summary

Workorder: 624176

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Lithium	0.0500	0.0246		0.0762	mg/L		103	(75%-125%)	PRB	06/08/23	18:02
Magnesium	2.00	29.8		29.9	mg/L		N/A	(75%-125%)		06/09/23	12:52
Manganese	0.0500	0.227		0.273	mg/L		N/A	(75%-125%)		06/08/23	18:02
Molybdenum	0.0500	U	ND	0.0545	mg/L		109	(75%-125%)			
Potassium	2.00	6.02		7.59	mg/L		78.5	(75%-125%)		06/09/23	12:52
Sodium	2.00	30.7		31.8	mg/L		N/A	(75%-125%)		06/08/23	18:02
Thallium	0.0500	U	ND	0.0493	mg/L		98.4	(75%-125%)			
QC1205420342	624176001 MSD										
Antimony	0.0500	U	ND	0.0504	mg/L	0.629	101	(0%-20%)		06/08/23	18:06
Arsenic	0.0500	U	ND	0.0498	mg/L	0.595	96	(0%-20%)			
Barium	0.0500	0.0256		0.0749	mg/L	0.72	98.5	(0%-20%)			
Beryllium	0.0500	U	ND	0.0562	mg/L	1.09	112	(0%-20%)			
Cadmium	0.0500	U	ND	0.0498	mg/L	0.485	99.4	(0%-20%)			
Calcium	2.00	66.4		64.2	mg/L	1.97	N/A	(0%-20%)		06/08/23	18:37
Chromium	0.0500	U	ND	0.0492	mg/L	1.07	97	(0%-20%)		06/08/23	18:06
Cobalt	0.0500	0.00131		0.0493	mg/L	0.604	96.1	(0%-20%)			



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## QC Summary

Workorder: 624176

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Iron	2.00	0.219		2.13	mg/L	1.19	95.6	(0%-20%)	PRB	06/08/23	18:06
Lead	0.0500	U	ND	0.0493	mg/L	1.38	98.4	(0%-20%)			
Lithium	0.0500		0.0246	0.0771	mg/L	1.14	105	(0%-20%)			
Magnesium	2.00		29.8	29.7	mg/L	0.545	N/A	(0%-20%)		06/09/23	12:54
Manganese	0.0500		0.227	0.273	mg/L	0.152	N/A	(0%-20%)		06/08/23	18:06
Molybdenum	0.0500	U	ND	0.0548	mg/L	0.622	109	(0%-20%)			
Potassium	2.00		6.02	7.58	mg/L	0.13	78	(0%-20%)		06/09/23	12:54
Sodium	2.00		30.7	32.3	mg/L	1.32	N/A	(0%-20%)		06/08/23	18:06
Thallium	0.0500	U	ND	0.0483	mg/L	1.95	96.5	(0%-20%)			
QC1205420343 624176001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		06/08/23	18:13
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			25.6	5.02	ug/L	1.88		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Calcium			6640	1310	ug/L	.955		(0%-20%)		06/08/23	18:41

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## QC Summary

Workorder: 624176

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2436930										
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	06/08/23	18:13
Cobalt		1.31	U	ND	ug/L	N/A		(0%-20%)			
Iron		219	J	44.1	ug/L	.975		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium		24.6	J	4.27	ug/L	13.2		(0%-20%)			
Magnesium		29800		5700	ug/L	4.49		(0%-20%)		06/09/23	12:58
Manganese		227		45.3	ug/L	.474		(0%-20%)		06/08/23	18:13
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Potassium		6020		1080	ug/L	10.3		(0%-20%)		06/09/23	12:58
Sodium		30700		5700	ug/L	7.36		(0%-20%)		06/08/23	18:13
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2437131										
QC1205420702	623246002 DUP										
Mercury	U	ND	U	ND	mg/L	N/A			JP2	06/02/23	09:40
QC1205420701	LCS										
Mercury		0.00200		0.00240	mg/L		120	(80%-120%)		06/02/23	09:32
QC1205420700	MB										
Mercury			U	ND	mg/L					06/02/23	09:30

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## QC Summary

Workorder: 624176

Page 7 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	2437131										
QC1205420703	623246002	MS									
Mercury	0.00200	U		ND	0.00200	mg/L	99.9	(75%-125%)	JP2	06/02/23	09:42
QC1205420704	623246002	SDILT									
Mercury		U		ND	U	ND	ug/L	N/A		(0%-10%)	06/02/23 09:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
 ^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.  
 For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Metals**  
**Technical Case Narrative**  
**Georgia Power Company**  
**SDG #: 624176**

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2436930

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2436929

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624176001	BRA-PZ-73I
1205420339	Method Blank (MB)ICP-MS
1205420340	Laboratory Control Sample (LCS)
1205420343	624176001(BRA-PZ-73IL) Serial Dilution (SD)
1205420341	624176001(BRA-PZ-73IS) Matrix Spike (MS)
1205420342	624176001(BRA-PZ-73ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were less than the MDL or greater than two times the CRDL; therefore the data were not adversely affected.

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	624176
	001

Calcium	10X
---------	-----

**Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

**Analytical Method: SW846 7470A**

**Analytical Procedure: GL-MA-E-010 REV# 39**

**Analytical Batch: 2437131**

**Preparation Method: SW846 7470A Prep**

**Preparation Procedure: GL-MA-E-010 REV# 39**

**Preparation Batch: 2437128**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624176001	BRA-PZ-731
1205420700	Method Blank (MB)CVAA
1205420701	Laboratory Control Sample (LCS)
1205420704	623246002(NonSDGL) Serial Dilution (SD)
1205420702	623246002(NonSDGD) Sample Duplicate (DUP)
1205420703	623246002(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager: Erin Trent  
 Phone # 404-506-7116  
 Fax #

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Project # \_\_\_\_\_ of \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (0): **624176**  
 PO Number: \_\_\_\_\_

---

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: ACC

Sample Analysis Requested (6) (Fill in the number of containers for each test)  
 Z \_\_\_\_\_  
 N \_\_\_\_\_  
 M \_\_\_\_\_  
 RPA 6020 \_\_\_\_\_  
 X \_\_\_\_\_

Preservative Type (6)  
 Comments:  
 Note: extra sample is required for:  
 sample specific QC  
 Task Code: BRA-CCR-  
 ASSMT-2023SI  
 field pH = 5.64

---

Send Results To: SCS & Geosyntec Contacts  
 Date Collected (mm/dd/yyyy): 05/22/23  
 Time Collected (Military): 1115  
 QC Code (6): G N WG  
 Field Sample Matrix (6): \_\_\_\_\_  
 Field Filtered (6): \_\_\_\_\_

Should this sample be considered:  
 Yes, please supply (7) Known or possible hazards  
 No, please supply (8) Unknown or possible hazards  
 Inactive (9) \_\_\_\_\_  
 Hazardous (10) \_\_\_\_\_

TAT Requested: Normal  Rush  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Pax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \_\_\_\_\_  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Mountain  Other

---

Requisitioned By (Signed) \_\_\_\_\_ Date \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_  
 1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_

Chain of Custody Signatures  
 Date \_\_\_\_\_ Time \_\_\_\_\_  
 Date \_\_\_\_\_ Time \_\_\_\_\_  
 Date \_\_\_\_\_ Time \_\_\_\_\_

For sample shipping and delivery details, see Sample Receipt & Return form (SRR)  
 Chain of Custody Number = Client Determined  
 QC Codes: N = Normal Sample, TB = Trip Blank, ED = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, C = Grab, C = Composite  
 Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered  
 Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 Sample Analysis Requested: Analytical method requested (i.e. 8260B, 8100B/7470A) and number of containers provided for each (i.e. 8260B - 3, 8100B/7470A - 1)  
 Preservative Type: HA = Hydrochloric Acid, NT = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, EX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 KNOWN OR POSSIBLE HAZARDS  
 Characteristic Hazards: \_\_\_\_\_  
 FL = Flammable/ignitable  
 CO = Corrosive  
 RE = Reactive  
 Listed Waste: \_\_\_\_\_  
 LW = Listed Waste  
 (F, K, P and U-listed wastes)  
 Waste code(s): \_\_\_\_\_  
 TSCA Regulated: \_\_\_\_\_  
 PCB = Polychlorinated biphenyls  
 RCRA Metals: \_\_\_\_\_  
 AS = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

---

Other: \_\_\_\_\_  
 Description: \_\_\_\_\_

OT = Other / Unknown  
 (i.e.: High flow pit, asbestos, beryllium, irritants, other misc. health hazards, etc.)

Please provide any additional details below regarding handling and/or disposal concerns (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

**SAMPLE RECEIPT & REVIEW FORM**

6231A3

Client: <b>GPCC</b>		SDG/AR/COC/Work Order:	
Received By: <b>Stacy Boone</b>		Date Received: <b>05.23.2023</b>	
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier    Other	
Suspected Hazard Information		Yes    No    *) If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: <b>UNE:</b> If UN2910, is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ___ CPM / mR/hr Classified as: Rad 1    Rad 2    Rad 3	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other:	
Sample Receipt Criteria		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	Yes	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of Custody documents included with shipment?	Yes	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	Yes	Preservation Method: Wet Ice    Ice Packs    Dry Ice    None    Other: *all temperatures are recorded in Celsius <b>TEMP: 1 °</b>
4	Daily check performed and passed on IR temperature gun?	Yes	Temperature Device Serial #: <b>18822 TR225</b> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	Yes	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	Yes	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	Yes	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (if unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	Yes	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	Yes	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	Yes	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	Yes	Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	Yes	
13	COC form is properly signed in relinquished/received sections?	Yes	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials

*[Signature]*

Date

6/24/23

Page

1 of 1

**List of current GEL Certifications as of 10 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780





June 14, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 624375

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 01, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624375 GEL Work Order: 624375

**The Qualifiers in this report are defined as follows:**

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a Tracer compound

\*\* Analyte is a surrogate compound

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
 Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I	Project: GPCC00101
Sample ID: 624375001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-JUN-23 09:50	
Receive Date: 01-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.49			SU			AJ1	06/01/23	0950	2443527	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	06/01/23	0950	2443527	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Nitrate-N		0.518	0.165	0.500	mg/L		5	JLD1	06/02/23	0001	2437803	3
Chloride		7.17	0.0670	0.200	mg/L		1	JLD1	06/01/23	1852	2437803	4
Fluoride		0.158	0.0330	0.100	mg/L		1					
Sulfate		291	5.32	16.0	mg/L		40	JLD1	06/02/23	0032	2437803	5
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		505	2.38	10.0	mg/L			CH6	06/02/23	1407	2437940	6
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/06/23	1632	2437743	7
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		30.4	0.725	2.00	mg/L			JW2	06/07/23	1142	2439657	8
Bicarbonate alkalinity (CaCO3)		30.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 300.0	
6	SM 2540C	
7	SM 4500-S (2-) D	
8	SM 2320B	

**Notes:**

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I  
Sample ID: 624375001

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------	-------	--------

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308  
Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-72I Project: GPCC00101  
Sample ID: 624375002 Client ID: GPCC001  
Matrix: WG  
Collect Date: 31-MAY-23 09:40  
Receive Date: 01-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.82			SU			AJ1	05/31/23	0940	2443527	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			AJ1	05/31/23	0940	2443527	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.57	0.104	0.300	mg/L	1.00	20	PRB	06/08/23	1722	2437820	3
Selenium		0.0977	0.00150	0.00500	mg/L	1.00	1	PRB	06/08/23	1703	2437820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	06/02/23	0735	2437819

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	GEL Field Method	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: June 14, 2023

Page 1 of 4

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624375

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2437803										
QC1205421940	624337001	DUP									
Chloride	U	ND	U	ND	mg/L	N/A			JLD1	06/01/23	21:57
Fluoride	U	ND	U	ND	mg/L	N/A					
Nitrate-N	U	ND	U	ND	mg/L	N/A					
Sulfate	U	ND	U	ND	mg/L	N/A					
QC1205421939	LCS										
Chloride	5.00			4.79	mg/L		95.8	(90%-110%)		06/01/23	21:26
Fluoride	2.50			2.53	mg/L		101	(90%-110%)			
Nitrate-N	2.50			2.37	mg/L		94.8	(90%-110%)			
Sulfate	10.0			9.84	mg/L		98.4	(90%-110%)			
QC1205421938	MB										
Chloride			U	ND	mg/L					06/01/23	20:55
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205421941	624337001	PS									
Chloride	5.00	U	ND	4.83	mg/L		96.6	(90%-110%)		06/01/23	23:30

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624375

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2437803										
Fluoride	2.50	U	ND	2.52	mg/L		101	(90%-110%)	JLD1	06/01/23	23:30
Nitrate-N	2.50	U	ND	2.39	mg/L		95.7	(90%-110%)			
Sulfate	10.0	U	ND	9.84	mg/L		98.4	(90%-110%)			
<b>Metals Analysis - ICPMS</b>											
Batch	2437820										
QC1205421946	LCS										
Boron	0.100			0.107	mg/L		107	(80%-120%)	PRB	06/08/23	17:00
Selenium	0.0500			0.0483	mg/L		96.6	(80%-120%)			
QC1205421945	MB										
Boron			U	ND	mg/L					06/08/23	16:56
Selenium			U	ND	mg/L						
QC1205421947	624375002 MS										
Boron	0.100		1.57	1.41	mg/L		N/A	(75%-125%)		06/08/23	17:33
Selenium	0.0500		0.0977	0.145	mg/L		93.9	(75%-125%)		06/08/23	17:07
QC1205421948	624375002 MSD										
Boron	0.100		1.57	1.41	mg/L	0.381	N/A	(0%-20%)		06/08/23	17:37
Selenium	0.0500		0.0977	0.148	mg/L	2.27	100	(0%-20%)		06/08/23	17:11
QC1205421949	624375002 SDILT										
Boron			78.4	17.6	ug/L	12.3		(0%-20%)		06/08/23	17:40
Selenium			97.7	18.2	ug/L	6.73		(0%-20%)		06/08/23	17:19

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624375

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch 2437940											
QC1205422265	624276002	DUP									
Total Dissolved Solids		964		1000	mg/L	3.87		(0%-5%)	CH6	06/02/23	14:07
QC1205422263	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		06/02/23	14:07
QC1205422262	MB										
Total Dissolved Solids			U	ND	mg/L					06/02/23	14:07
<b>Spectrometric Analysis</b>											
Batch 2437743											
QC1205421868	LCS										
Total Sulfide	0.400			0.414	mg/L		104	(85%-115%)	JW2	06/06/23	16:25
QC1205421867	MB										
Total Sulfide			U	ND	mg/L					06/06/23	16:25
QC1205421869	624069002	PS									
Total Sulfide	0.400	U	ND	0.382	mg/L		95.4	(75%-125%)		06/06/23	16:25
QC1205421870	624069002	PSD									
Total Sulfide	0.400	U	ND	0.377	mg/L	1.18	94.3	(0%-15%)		06/06/23	16:26
<b>Titration and Ion Analysis</b>											
Batch 2439657											
QC1205425592	624405001	DUP									
Alkalinity, Total as CaCO3		103		103	mg/L	0.485		(0%-20%)	JW2	06/07/23	11:50
QC1205425591	LCS										
Alkalinity, Total as CaCO3	50.0			50.7	mg/L		101	(90%-110%)		06/07/23	11:39
QC1205425593	624405001	MS									
Alkalinity, Total as CaCO3	50.0	103		156	mg/L		106	(80%-120%)		06/07/23	11:57

Notes:



# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624375

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624375**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2437820

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2437819

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375002	BRA-PZ-72I
1205421945	Method Blank (MB)ICP-MS
1205421946	Laboratory Control Sample (LCS)
1205421949	624375002(BRA-PZ-72IL) Serial Dilution (SD)
1205421947	624375002(BRA-PZ-72IS) Matrix Spike (MS)
1205421948	624375002(BRA-PZ-72ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>624375</b>
	<b>002</b>
Boron	20X

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2437803

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205421938	Method Blank (MB)
1205421939	Laboratory Control Sample (LCS)
1205421940	624337001(NonSDG) Sample Duplicate (DUP)
1205421941	624337001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Technical Information**

#### **Sample Dilutions**

The following sample 624375001 (BRA-PZ-73I) was diluted because target analyte concentrations exceeded the calibration range. The following sample 624375001 (BRA-PZ-73I) in this sample group was diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>624375</b>
	<b>001</b>
Nitrate-N	5X
Sulfate	40X

**Product:** Solids, Total Dissolved

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2437940

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205422262	Method Blank (MB)
1205422263	Laboratory Control Sample (LCS)
1205422265	624276002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205422265 (Non SDG 624276002DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2437743

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205421867	Method Blank (MB)
1205421868	Laboratory Control Sample (LCS)
1205421869	624069002(NonSDG) Post Spike (PS)
1205421870	624069002(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2439657

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624375001	BRA-PZ-73I
1205425591	Laboratory Control Sample (LCS)
1205425592	624405001(NonSDG) Sample Duplicate (DUP)
1205425593	624405001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**GEL Laboratories LLC**  
 Chemistry | Radiology | Radiochemistry | Specialty Analytics  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Laboratories LLC**  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: 404-506-7116  
 Phone # 404-506-7116  
 Fax #  
 Project/Site Name: Plant Branch Ash Ponds - BOD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Collected By: AS, J&E ACC  
 Send Results To: SCS & Geosyntec Contacts

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID	Date Collected (analytical)	Date Collected (field)	Time Collected (analytical)	Time Collected (field)	OC (field)	Field Sample Marked	Matrix	Notes	Analysis Requested	Preserve Type (G)	Comments
BRA-PZ-731	06/01/23	0950	G	N	WG	N	7	✓	CL, S, SO4, TDS, NO3 BVA 300, SM 2540C Total Crp, & Heavy Air SM 2370D Rocking 226 & 228 SM 14500 SW-310 9315, 9200 N	APP I Metals	field pH = 5.44 field ferrous iron = 0.0 mg/L field OH = 5.82 field ferrous iron = 0.0 mg/L
BRA-PZ-721	05/31/23	0940	G	N	WG	N	1	✓			

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>[Signature]</u>	06/01/23	<u>1.A. Neuhof</u>	06/01/23	1634

TAT Requested: Normal  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharges)

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

**Sample Collection Time Zone:**  Eastern  Central  Mountain  Pacific

**Sample Collection Method:**  Grab  Composite

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, FB = Trip Blank, JD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with L - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: YD = Drinking Water, WC = Groundwater, WS = Surface Water, WTW = Pass Water, WLP = Leachate, SO = Soil, SE = Sediment, SI = Sludge, WQ = Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 226B, 6010B/2470A) and number of containers provided for each (i.e. 226B - 3, 6010B/2470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SE = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, EA = Formic Acid, ST = Sodium Thiosulfate, if no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS:**  
 H1 = Flammable/ignitable  
 H2 = Corrosive  
 H3 = Irritant  
 H4 = Characteristic Hazards  
 H5 = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 RCRA Metals  
 AS = Arsenic, BF = Boron, Cd = Cadmium, Cr = Chromium, Cu = Copper, Hg = Mercury, Ni = Nickel, Pb = Lead, Se = Selenium, Si = Silicon, Ag = Silver, Zn = Zinc  
 MR = Major RCRA metals  
 PC = Priority  
 Other: Other - Unknown  
Other - High level - asbestos very illume, asbestos other misc health hazard, etc  
 Description: \_\_\_\_\_

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624375</u>	
Received By: <u>QG</u>		Date Received: <u>6/1/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services    Courier <u>Other</u>	
		<u>n/a</u>	
Suspected Hazard Information		Yes	No
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/hr/Hr Classified as: Rad 1    Rad 2    Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other: _____
Sample Receipt Criteria		Yes	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius    TEMP: <u>100</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>127-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials mg Date 6/2/23 Page 1 of 1

**List of current GEL Certifications as of 14 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780





June 28, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 624382

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 01, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Molly Gloth for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624382 GEL Work Order: 624382

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: June 28, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-73I  
Sample ID: 624382001  
Matrix: WG  
Collect Date: 01-JUN-23  
Receive Date: 01-JUN-23  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.24	+/-1.04	1.68	+/-1.09	3.00	pCi/L			JE1	06/08/23	1052	2438733	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.80	+/-1.10	1.68	+/-1.15		pCi/L			LXB3	06/28/23	1202	2448592	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.564	+/-0.338	0.330	+/-0.358	1.00	pCi/L			LXP1	06/28/23	0837	2438535	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2438733	87.9	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

**Radiochemistry  
Technical Case Narrative  
Georgia Power Company  
SDG #: 624382**

**Product:** Radium-226+Radium-228 Calculation

**Analytical Method:** Calculation

**Analytical Procedure:** GL-RAD-D-003 REV# 45

**Analytical Batch:** 2448592

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624382001	BRA-PZ-73I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product:** GFPC Ra228, Liquid

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2438733

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624382001	BRA-PZ-73I
1205423880	Method Blank (MB)
1205423881	622427001(NonSDG) Sample Duplicate (DUP)
1205423882	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205423880 (MB)	Radium-228	Result: 2.81 pCi/L > MDA: 2.63 pCi/L <= RDL: 3.00 pCi/L

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2438535

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624382001	BRA-PZ-731
1205423404	Method Blank (MB)
1205423406	624300001(NonSDG) Sample Duplicate (DUP)
1205423408	624300001(NonSDG) Matrix Spike (MS)
1205423409	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205423408 (Non SDG 624300001MS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

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## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date: June 28, 2023**  
**Page 1 of 2**

**Atlanta, Georgia**

**Contact:** Joju Abraham

**Workorder:** 624382

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
<b>Rad Gas Flow</b>									
Batch	2438733								
QC1205423881	622427001 DUP								
Radium-228		2.60	1.81	pCi/L	35.9		(0% - 100%)	JE1	06/08/23 10:51
		Uncert: +/-1.16	+/-0.938						
		TPU: +/-1.33	+/-1.04						
QC1205423882	LCS								
Radium-228	81.5		79.7	pCi/L		97.8	(75%-125%)	JE1	06/08/23 10:51
		Uncert:	+/-5.02						
		TPU:	+/-20.9						
QC1205423880	MB								
Radium-228			2.81	pCi/L				JE1	06/08/23 10:51
		Uncert:	+/-1.69						
		TPU:	+/-1.84						
<b>Rad Ra-226</b>									
Batch	2438535								
QC1205423406	624300001 DUP								
Radium-226	U	0.286	U	0.209	pCi/L	0		N/A LXP1	06/28/23 09:11
		Uncert: +/-0.283		+/-0.237					
		TPU: +/-0.289		+/-0.239					
QC1205423409	LCS								
Radium-226	26.3		29.8	pCi/L		113	(75%-125%)	LXP1	06/28/23 09:11
		Uncert:	+/-2.45						
		TPU:	+/-7.23						
QC1205423404	MB								
Radium-226			U	0.0294	pCi/L			LXP1	06/28/23 09:11
		Uncert:		+/-0.191					
		TPU:		+/-0.191					
QC1205423408	624300001 MS								
Radium-226	132 U	0.286		157	pCi/L		118 (75%-125%)	LXP1	06/28/23 09:11
		Uncert: +/-0.283		+/-12.0					
		TPU: +/-0.289		+/-32.1					

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 624382

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI										
BD										
h										
R										
^										
N/A										
ND										
M										
NJ										
FA										
UJ										
Q										
K										
UL										
L										
N1										
Y										
**										
M										
J										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



024382

**GEL** Laboratories LLC  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
 Chain of Custody and Analytical Request  
 GEL Work Order Number: **GEL Project Manager: Erin Trent**  
 Project # \_\_\_\_\_ of \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Work Order Number: \_\_\_\_\_  
 GEL Project Manager: Erin Trent  
 Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_  
 Chain of Custody and Analytical Request

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task_Code: BRA-CCR-ASSMT-2023S1R1
						Radioactive (if Yes, please supply isotopic info)	(7) Known or possible Hazards		CI, F, SO4, TDS, NO3 SM 2540C	Total, Carb. & Bicarb Alk SM 220B	Radium 226 & 228 SW-846 9315, 9320	Sulfide SM 4500	App I Metals	
BRA-PZ-731	06/01/23	0950	G	N	WG	N	N	7	✓	✓	✓	✓	✓	field pH = 5.44
BRA-PZ-721	05/31/23	0940	G	N	WG	N	N	1	✓	✓	✓	✓	✓	field ferrous iron = 0.0mg/L field pH = 5.82 field ferrous iron = 0.0mg/L

Chain of Custody Signatures			
Relinquished By (Signed)	Date	Received by (signed)	Date
<i>[Signature]</i>	6-1-23 1634	<i>[Signature]</i>	6/1/23 1634

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \*B, Se  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_  
 > For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 7.) **KNOWN OR POSSIBLE HAZARDS**  
 Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive  
 Listed Waste  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 RCRA Metals  
 As = Arsenic  
 Ba = Barium  
 Cd = Cadmium  
 Cr = Chromium  
 Hg = Mercury  
 Se = Selenium  
 Ag = Silver  
 MR = Misc. RCRA metals  
 Other  
 OT = Other / Unknown  
 (i.e. High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624375</u>	
Received By: <u>QG</u>		Date Received: <u>6/1/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u>	
		<u>n/a</u>	
Suspected Hazard Information		Yes	No
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes	NA
		No	
		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius <span style="float: right;">TEMP: <u>100</u></span>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>122-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
		<input checked="" type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
		<input checked="" type="checkbox"/>	Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials mg Date 6/2/23 Page 1 of 1

**List of current GEL Certifications as of 28 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 14, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 624831

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624832 GEL Work Order: 624832

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624831 GEL Work Order: 624831

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-5 Project: GPCC00101  
Sample ID: 624831001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 05-JUN-23 11:05  
Receive Date: 06-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.81			SU			EOS1	06/05/23	1105	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	06/05/23	1105	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		62.1	1.33	4.00	mg/L		10	JLD1	06/06/23	2358	2439679	3
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	JLD1	06/06/23	2222	2439679	4
Chloride		0.693	0.0670	0.200	mg/L		1	JLD1	06/06/23	1632	2439679	5
Fluoride		0.113	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.366	0.0260	0.0750	mg/L	1.00	5	PRB	06/12/23	2012	2439741	6
Calcium		36.8	0.0800	0.200	mg/L	1.00	1	PRB	06/12/23	2044	2439741	7
Cobalt	J	0.000852	0.000300	0.00100	mg/L	1.00	1					
Iron		21.1	0.0330	0.100	mg/L	1.00	1					
Magnesium		5.14	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.751	0.00100	0.00500	mg/L	1.00	1					
Potassium		11.6	0.0800	0.300	mg/L	1.00	1					
Sodium		2.97	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		232	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1721	2440523	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		96.1	0.725	2.00	mg/L			JW2	06/08/23	1024	2440524	10
Bicarbonate alkalinity (CaCO3)		96.1	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-5  
Sample ID: 624831001  
Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-4	Project: GPCC00101
Sample ID: 624831002	Client ID: GPCC001
Matrix: WG	
Collect Date: 05-JUN-23 13:15	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.79			SU			EOS1	06/05/23	1315	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		2			mg/L			EOS1	06/05/23	1315	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.112	0.0330	0.100	mg/L		1	JLD1	06/06/23	1529	2439679	3
Chloride		19.3	0.335	1.00	mg/L		5	JLD1	06/06/23	1943	2439679	4
Nitrate-N		1.16	0.165	0.500	mg/L		5					
Sulfate		284	5.32	16.0	mg/L		40	JLD1	06/06/23	2015	2439679	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Cobalt		0.00586	0.000300	0.00100	mg/L	1.00	1	PRB	06/12/23	2102	2439741	6
Iron		2.23	0.0330	0.100	mg/L	1.00	1					
Magnesium		24.6	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.821	0.00100	0.00500	mg/L	1.00	1					
Potassium		13.8	0.0800	0.300	mg/L	1.00	1					
Sodium		40.9	0.0800	0.250	mg/L	1.00	1					
Calcium		95.2	1.60	4.00	mg/L	1.00	20	PRB	06/13/23	1512	2439741	7
Boron		1.05	0.130	0.375	mg/L	1.00	25	PRB	06/13/23	0921	2439741	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		593	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1721	2440523	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			JW2	06/08/23	1028	2440524	11
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-4      Project: GPCC00101  
Sample ID: 624831002      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS	3005A PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		
10	SM 4500-S (2-) D		
11	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-3      Project: GPCC00101  
Sample ID: 624831003      Client ID: GPCC001  
Matrix: WG  
Collect Date: 05-JUN-23 15:10  
Receive Date: 06-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		8.40			SU			EOS1	06/05/23	1510	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	06/05/23	1510	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.129	0.0330	0.100	mg/L		1	JLD1	06/06/23	1600	2439679	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		29.6	2.68	8.00	mg/L		40	JLD1	06/07/23	0932	2439679	4
Sulfate		636	5.32	16.0	mg/L		40					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1	PRB	06/12/23	2106	2439741	5
Iron		0.123	0.0330	0.100	mg/L	1.00	1					
Magnesium		34.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0701	0.00100	0.00500	mg/L	1.00	1					
Potassium		14.9	0.0800	0.300	mg/L	1.00	1					
Calcium		166	1.60	4.00	mg/L	1.00	20	PRB	06/13/23	1515	2439741	6
Sodium		50.0	1.60	5.00	mg/L	1.00	20					
Boron		1.28	0.130	0.375	mg/L	1.00	25	PRB	06/13/23	0923	2439741	7
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		826	4.76	20.0	mg/L			CH6	06/07/23	1447	2440211	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1722	2440523	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		148	0.725	2.00	mg/L			JW2	06/08/23	1032	2440524	10
Bicarbonate alkalinity (CaCO3)		146	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)		2.20	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-3      Project: GPCC00101  
Sample ID: 624831003      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 15, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I	Project: GPCC00101
Sample ID: 624832001	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-JUN-23 09:40	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.83			SU			EOS1	06/06/23	0940	2439624	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1.5			mg/L			EOS1	06/06/23	0940	2439624	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		304	5.32	16.0	mg/L		40	JLD1	06/07/23	0134	2439679	3
Chloride		8.22	0.0670	0.200	mg/L		1	JLD1	06/06/23	1911	2439679	4
Fluoride	J	0.0891	0.0330	0.100	mg/L		1					
Nitrate-N		0.793	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Iron		1.38	0.0330	0.100	mg/L	1.00	1	BAJ	06/12/23	1506	2439851	5
Magnesium		37.9	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.602	0.00100	0.00500	mg/L	1.00	1					
Potassium		5.65	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0237	0.00150	0.00500	mg/L	1.00	1					
Sodium		28.8	0.0800	0.250	mg/L	1.00	1					
Boron		1.24	0.0520	0.150	mg/L	1.00	10	BAJ	06/13/23	1146	2439851	6
Calcium		70.1	0.800	2.00	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		523	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	7
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1723	2440523	8
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		43.4	0.725	2.00	mg/L			JW2	06/08/23	1036	2440524	9
Bicarbonate alkalinity (CaCO3)		43.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 15, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I Project: GPCC00101  
Sample ID: 624832001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439850		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		
8	SM 4500-S (2-) D		
9	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: June 15, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624832

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
QC1205425631	624831001	DUP									
Chloride		0.693		0.685	mg/L	1.22	^	(+/-0.200)	JLD1	06/06/23	17:04
Fluoride		0.113		0.114	mg/L	1.32	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				06/06/23	22:54
Sulfate		62.1		61.9	mg/L	0.445		(0%-20%)		06/07/23	00:30
QC1205425630	LCS										
Chloride	5.00			4.83	mg/L			96.5 (90%-110%)		06/06/23	18:39
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.86	mg/L			98.6 (90%-110%)			
QC1205425629	MB										
Chloride			U	ND	mg/L					06/06/23	18:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205425632	624831001	PS									
Chloride	5.00	0.693		5.45	mg/L			95.2 (90%-110%)		06/06/23	17:36

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## QC Summary

Workorder: 624832

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
Fluoride	2.50	0.113		2.54	mg/L		97.1	(90%-110%)	JLD1	06/06/23	17:36
Nitrate-N	2.50	U	ND	2.22	mg/L		88.7*	(90%-110%)		06/06/23	23:26
Sulfate	10.0	6.21		16.1	mg/L		98.6	(90%-110%)		06/07/23	01:02
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
QC1205425805	LCS										
Boron	0.100			0.112	mg/L		112	(80%-120%)	BAJ	06/13/23	11:45
Calcium	2.00			2.15	mg/L		107	(80%-120%)			
Iron	2.00			2.06	mg/L		103	(80%-120%)		06/12/23	15:03
Magnesium	2.00			2.22	mg/L		111	(80%-120%)			
Manganese	0.0500			0.0521	mg/L		104	(80%-120%)			
Potassium	2.00			2.07	mg/L		104	(80%-120%)			
Selenium	0.0500			0.0499	mg/L		99.7	(80%-120%)			
Sodium	2.00			2.18	mg/L		109	(80%-120%)			
QC1205425804	MB										
Boron			U	ND	mg/L					06/13/23	11:43
Calcium			U	ND	mg/L						
Iron			U	ND	mg/L					06/12/23	14:59

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## QC Summary

Workorder: 624832

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
Magnesium			U	ND	mg/L				BAJ	06/12/23	14:59
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205425806 624832001 MS											
Boron	0.100	1.24		1.38	mg/L		N/A	(75%-125%)		06/13/23	11:48
Calcium	2.00	70.1		73.0	mg/L		N/A	(75%-125%)			
Iron	2.00	1.38		3.47	mg/L		104	(75%-125%)		06/12/23	15:10
Magnesium	2.00	37.9		41.8	mg/L		N/A	(75%-125%)			
Manganese	0.0500	0.602		0.681	mg/L		N/A	(75%-125%)			
Potassium	2.00	5.65		8.00	mg/L		117	(75%-125%)			
Selenium	0.0500	0.0237		0.0747	mg/L		102	(75%-125%)			
Sodium	2.00	28.8		32.5	mg/L		N/A	(75%-125%)			
QC1205425807 624832001 MSD											
Boron	0.100	1.24		1.34	mg/L	2.8	N/A	(0%-20%)		06/13/23	11:50
Calcium	2.00	70.1		71.0	mg/L	2.84	N/A	(0%-20%)			



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## QC Summary

Workorder: 624832

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
Iron	2.00	1.38		3.22	mg/L	7.5	91.9	(0%-20%)	BAJ	06/12/23	15:14
Magnesium	2.00	37.9		39.5	mg/L	5.72	N/A	(0%-20%)			
Manganese	0.0500	0.602		0.640	mg/L	6.32	N/A	(0%-20%)			
Potassium	2.00	5.65		7.63	mg/L	4.73	98.9	(0%-20%)			
Selenium	0.0500	0.0237		0.0690	mg/L	7.9	90.6	(0%-20%)			
Sodium	2.00	28.8		30.2	mg/L	7.32	N/A	(0%-20%)			
QC1205425808 624832001 SDILT											
Boron		124		25.1	ug/L	1.01		(0%-20%)		06/13/23	11:52
Calcium		7010		1440	ug/L	2.91		(0%-20%)			
Iron		1380		287	ug/L	3.81		(0%-20%)		06/12/23	15:21
Magnesium		37900		7290	ug/L	3.77		(0%-20%)			
Manganese		602		124	ug/L	3.44		(0%-20%)			
Potassium		5650		1130	ug/L	.271		(0%-20%)			
Selenium		23.7	J	4.40	ug/L	7.28		(0%-20%)			
Sodium		28800		5590	ug/L	2.96		(0%-20%)			

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## QC Summary

Workorder: 624832

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2440211										
QC1205426454	624719002	DUP									
Total Dissolved Solids		562		556	mg/L	1.07		(0%-5%)	CH6	06/07/23	14:47
QC1205426452	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		06/07/23	14:47
QC1205426451	MB										
Total Dissolved Solids			U	ND	mg/L					06/07/23	14:47
<b>Spectrometric Analysis</b>											
Batch	2440523										
QC1205427032	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	06/09/23	17:18
QC1205427031	MB										
Total Sulfide			U	ND	mg/L					06/09/23	17:18
QC1205427035	624713005	PS									
Total Sulfide	0.400	U	ND	0.406	mg/L		101	(75%-125%)		06/09/23	17:18
QC1205427036	624713005	PSD									
Total Sulfide	0.400	U	ND	0.403	mg/L	0.552	101	(0%-15%)		06/09/23	17:18
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427040	624949002	DUP									
Alkalinity, Total as CaCO3		82.2		82.3	mg/L	0.122		(0%-20%)	JW2	06/08/23	10:41
Carbonate alkalinity (CaCO3)			U	ND	J	0.800		200			
QC1205427039	LCS										
Alkalinity, Total as CaCO3	50.0			51.4	mg/L		103	(90%-110%)		06/08/23	10:20

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## QC Summary

Workorder: 624832

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427041	624949002	MS									
Alkalinity, Total as CaCO3	50.0	82.2		135	mg/L		105	(80%-120%)	JW2	06/08/23	10:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

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## QC Summary

Workorder: 624832

Page 7 of 7

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: June 14, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
 241 Ralph McGill Blvd NE, Bin 10160  
 Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624831

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
QC1205425631	624831001	DUP									
Chloride		0.693		0.685	mg/L	1.22	^	(+/-0.200)	JLD1	06/06/23	17:04
Fluoride		0.113		0.114	mg/L	1.32	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				06/06/23	22:54
Sulfate		62.1		61.9	mg/L	0.445		(0%-20%)		06/07/23	00:30
QC1205425630	LCS										
Chloride	5.00			4.83	mg/L			96.5 (90%-110%)		06/06/23	18:39
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.86	mg/L			98.6 (90%-110%)			
QC1205425629	MB										
Chloride			U	ND	mg/L					06/06/23	18:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205425632	624831001	PS									
Chloride	5.00	0.693		5.45	mg/L			95.2 (90%-110%)		06/06/23	17:36

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## QC Summary

Workorder: 624831

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
Fluoride	2.50	0.113		2.54	mg/L		97.1	(90%-110%)	JLD1	06/06/23	17:36
Nitrate-N	2.50	U	ND	2.22	mg/L		88.7*	(90%-110%)		06/06/23	23:26
Sulfate	10.0	6.21		16.1	mg/L		98.6	(90%-110%)		06/07/23	01:02
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
QC1205425680	LCS										
Boron	0.100			0.0972	mg/L		97.2	(80%-120%)	PRB	06/12/23	20:08
Calcium	2.00			2.07	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0503	mg/L		101	(80%-120%)			
Iron	2.00			1.97	mg/L		98.6	(80%-120%)			
Magnesium	2.00			1.96	mg/L		97.8	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Sodium	2.00			1.98	mg/L		99.2	(80%-120%)			
QC1205425679	MB										
Boron			U	ND	mg/L					06/12/23	20:04
Calcium			U	ND	mg/L						
Cobalt			U	ND	mg/L						

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## QC Summary

Workorder: 624831

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
Iron			U	ND	mg/L				PRB	06/12/23	20:04
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205425681 624831001 MS											
Boron	0.100	0.366		0.478	mg/L		112	(75%-125%)		06/12/23	20:15
Calcium	2.00	36.8		40.0	mg/L		N/A	(75%-125%)		06/12/23	20:48
Cobalt	0.0500	J 0.000852		0.0543	mg/L		107	(75%-125%)			
Iron	2.00	21.1		24.0	mg/L		N/A	(75%-125%)			
Magnesium	2.00	5.14		7.32	mg/L		109	(75%-125%)			
Manganese	0.0500	0.751		0.834	mg/L		N/A	(75%-125%)			
Potassium	2.00	11.6		14.3	mg/L		N/A	(75%-125%)			
Sodium	2.00	2.97		5.14	mg/L		108	(75%-125%)			
QC1205425682 624831001 MSD											
Boron	0.100	0.366		0.472	mg/L	1.29	106	(0%-20%)		06/12/23	20:19
Calcium	2.00	36.8		38.0	mg/L	5.01	N/A	(0%-20%)		06/12/23	20:51

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## QC Summary

Workorder: 624831

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
Cobalt	0.0500	J	0.000852	0.0515	mg/L	5.27	101	(0%-20%)	PRB	06/12/23	20:51
Iron	2.00		21.1	22.9	mg/L	4.47	N/A	(0%-20%)			
Magnesium	2.00		5.14	7.02	mg/L	4.14	94.3	(0%-20%)			
Manganese	0.0500		0.751	0.793	mg/L	5.06	N/A	(0%-20%)			
Potassium	2.00		11.6	13.7	mg/L	4.08	N/A	(0%-20%)			
Sodium	2.00		2.97	4.87	mg/L	5.36	94.8	(0%-20%)			
QC1205425683 624831001 SDILT											
Boron			73.2	15.6	ug/L	6.23		(0%-20%)		06/12/23	20:26
Calcium			36800	7010	ug/L	4.65		(0%-20%)		06/12/23	20:59
Cobalt		J	0.852	U	ug/L	N/A		(0%-20%)			
Iron			21100	4210	ug/L	.207		(0%-20%)			
Magnesium			5140	1060	ug/L	3.08		(0%-20%)			
Manganese			751	152	ug/L	1.08		(0%-20%)			
Potassium			11600	2200	ug/L	5.2		(0%-20%)			
Sodium			2970	591	ug/L	.607		(0%-20%)			



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## QC Summary

Workorder: 624831

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2440211										
QC1205426456	624949002	DUP									
Total Dissolved Solids		134		138	mg/L	2.94		(0%-5%)	CH6	06/07/23	14:47
QC1205426452	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		06/07/23	14:47
QC1205426451	MB										
Total Dissolved Solids			U	ND	mg/L					06/07/23	14:47
<b>Spectrometric Analysis</b>											
Batch	2440523										
QC1205427032	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	06/09/23	17:18
QC1205427031	MB										
Total Sulfide			U	ND	mg/L					06/09/23	17:18
QC1205427035	624713005	PS									
Total Sulfide	0.400	U	ND	0.406	mg/L		101	(75%-125%)		06/09/23	17:18
QC1205427036	624713005	PSD									
Total Sulfide	0.400	U	ND	0.403	mg/L	0.552	101	(0%-15%)		06/09/23	17:18
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427040	624949002	DUP									
Alkalinity, Total as CaCO3		82.2		82.3	mg/L	0.122		(0%-20%)	JW2	06/08/23	10:41
Carbonate alkalinity (CaCO3)			U	ND	J	0.800	mg/L	200			
QC1205427039	LCS										
Alkalinity, Total as CaCO3	50.0			51.4	mg/L		103	(90%-110%)		06/08/23	10:20

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## QC Summary

Workorder: 624831

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427041	624949002	MS									
Alkalinity, Total as CaCO3	50.0	82.2		135	mg/L		105	(80%-120%)	JW2	06/08/23	10:43

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 624831

Page 7 of 7

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	--------------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624831**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2439741

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2439740

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205425679	Method Blank (MB)ICP-MS
1205425680	Laboratory Control Sample (LCS)
1205425683	624831001(BRA-IW-B-5L) Serial Dilution (SD)
1205425681	624831001(BRA-IW-B-5S) Matrix Spike (MS)
1205425682	624831001(BRA-IW-B-5SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected.

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte

concentrations were within the linear calibration range of the instrument.

Analyte	624831		
	001	002	003
Boron	5X	25X	25X
Calcium	1X	20X	20X
Sodium	1X	1X	20X

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2439679

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205425629	Method Blank (MB)
1205425630	Laboratory Control Sample (LCS)
1205425631	624831001(BRA-IW-B-5) Sample Duplicate (DUP)
1205425632	624831001(BRA-IW-B-5) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Nitrate-N	1205425632 (BRA-IW-B-5PS)	88.7* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS), 624831001 (BRA-IW-B-5), 624831002 (BRA-IW-B-4) and 624831003 (BRA-IW-B-3) were diluted because target analyte

concentrations exceeded the calibration range. The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS), 624831001 (BRA-IW-B-5) and 624831002 (BRA-IW-B-4) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	624831		
	001	002	003
Chloride	1X	5X	40X
Nitrate-N	2X	5X	1X
Sulfate	10X	40X	40X

**Sample Re-analysis**

Sample 624831003 (BRA-IW-B-3) was re-analyzed to verify the result.

**Miscellaneous Information**

**Manual Integrations**

Samples 1205425631 (BRA-IW-B-5DUP), 624831001 (BRA-IW-B-5) and 624831003 (BRA-IW-B-3) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2440211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205426451	Method Blank (MB)
1205426452	Laboratory Control Sample (LCS)
1205426456	624949002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 624831003 (BRA-IW-B-3).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2440523

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205427031	Method Blank (MB)
1205427032	Laboratory Control Sample (LCS)
1205427035	624713005(NonSDG) Post Spike (PS)
1205427036	624713005(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2440524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205427039	Laboratory Control Sample (LCS)
1205427040	624949002(NonSDG) Sample Duplicate (DUP)
1205427041	624949002(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

Meets GEL's limits.

Sample	Analyte	Value
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1205427040 (Non SDG 624949002DUP)	Carbonate alkalinity (CaCO <sub>3</sub> )	28.6* (0%-20%)
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**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



**Technical Case Narrative  
Georgia Power Company  
SDG #: 624832**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2439851

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2439850

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205425804	Method Blank (MB)ICP-MS
1205425805	Laboratory Control Sample (LCS)
1205425808	624832001(BRA-PZ-74IL) Serial Dilution (SD)
1205425806	624832001(BRA-PZ-74IS) Matrix Spike (MS)
1205425807	624832001(BRA-PZ-74ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>624832</b>
	<b>001</b>
Boron	10X
Calcium	10X

## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2439679

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205425629	Method Blank (MB)
1205425630	Laboratory Control Sample (LCS)
1205425631	624831001(BRA-IW-B-5) Sample Duplicate (DUP)
1205425632	624831001(BRA-IW-B-5) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Nitrate-N	1205425632 (BRA-IW-B-5PS)	88.7* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS) and 624832001 (BRA-PZ-74I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205425631 (BRA-IW-B-5DUP) and 1205425632 (BRA-IW-B-5PS) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	624832
	001
Sulfate	40X

### **Miscellaneous Information**

**Manual Integrations**

Sample 1205425631 (BRA-IW-B-5DUP) was manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2440211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205426451	Method Blank (MB)
1205426452	Laboratory Control Sample (LCS)
1205426454	624719002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205426454 (Non SDG 624719002DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2440523

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205427031	Method Blank (MB)
1205427032	Laboratory Control Sample (LCS)
1205427035	624713005(NonSDG) Post Spike (PS)
1205427036	624713005(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration,

continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2440524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205427039	Laboratory Control Sample (LCS)
1205427040	624949002(NonSDG) Sample Duplicate (DUP)
1205427041	624949002(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

Meets GEL's limits.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205427040 (Non SDG 624949002DUP)	Carbonate alkalinity (CaCO <sub>3</sub> )	28.6* (0%-20%)

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

**GEL** Laboratories LLC **624831**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

**Chain of Custody and Analytical Request**

GEL Work Order Number: **GEL Project Manager: Erin Trent**  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *J. Brasfield* ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm) (hhmm))	QC Code (3)	Field Filtered (b)	Sample Matrix (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI
						Radioactive (if yes, please supply isotopic info)	Possible Hazards (7) Known or	Total number of containers	Metals * EPA 6020	Total Carb. & Bicarb Alk SM 2320B	Sulfide SM 4500	SH	
BRA-IW-B-5	06/05/23	1105	G	N	WG			3	✓	✓			field pH = 5.81 field ferrous iron = 6.0mg/L
BRA-IW-B-4	06/05/23	1315	G	N	WG			3	✓	✓			field pH = 5.79 field ferrous iron = 2.0mg/L
BRA-IW-B-3	06/05/23	1510	G	N	WG			3	✓	✓			field pH = 8.40 field ferrous iron = 0.0mg/L

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Date	Time
<i>[Signature]</i>	6/6/23	0824	6/6/23	8:39
<i>[Signature]</i>	6/6/23	1:14	6/6/23	13:00
3				

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Co,Fe,Mg,Mn,K,Na

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, C = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

Characteristic Hazards	Listed Waste	Other
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

**RCRA Metals**  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>Epcc</u>		SDG/AR/COC/Work Order: <u>624831</u>		<u>FT</u>	
Received By: <u>Thyasia Tatum</u>		Date Received: <u>09/08/23</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier <u>Other</u>			
Suspected Hazard Information		Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>6</u> CPM / mR/Hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____	
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: _____ *all temperatures are recorded in Celsius <b>TEMP: <u>2C</u></b>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials MTB Date 09/08/23 Page 1 of 1



Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments
						Radioactive (if yes, please supply isotopic info)	(7) Known or possible Hazards		NI	Metals * EPA 6020, 7470 Sulfide SM 4500	CI, F, SO4, TDS, NO3 EPA 300, SM 2540C SM 2320B	Total Carb. & Bicarb Alk	
BRA-PZ-741	06/06/23	0940	G	N	WG			1	1	1	1	1	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023S1 field pH = 5.83 field ferrous iron = 1.5 mg/L

**Chain of Custody Signatures**

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1. *Angela J...* 6/6/23 1539  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Se,Fe,Mg,Mn,K,Na,Hg  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other: \_\_\_\_\_

**For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

<b>RCRA Metals</b> As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	<b>Characteristic Hazards</b> FL = Flammable/Ignitable CO = Corrosive RE = Reactive	<b>Listed Waste</b> LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	<b>Other</b> OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____
---	--	--	---

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

ET

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624-832</u>	
Received By: <u>QG</u>		Date Received: <u>6/6/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other  <u>nla</u>	
Suspected Hazard Information		Yes	No
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample Receipt Criteria		Yes	No
1 Shipping containers received intact and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Chain of custody documents included with shipment?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Daily check performed and passed on IR temperature gun?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Sample containers intact and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7 Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 Samples received within holding time?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9 Sample ID's on COC match ID's on bottles?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10 Date & time on COC match date & time on bottles?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11 Number of containers received match number indicated on COC?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 Are sample containers identifiable as GEL provided by use of GEL labels?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13 COC form is properly signed in relinquished/received sections?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AS Date 6/7/23 Page 1 of 1



**List of current GEL Certifications as of 15 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**List of current GEL Certifications as of 14 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



July 21, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD and Reanalysis: additional analysis for 624832  
Work Orders: 627361 and 624831

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 627361 GEL Work Order: 627361

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- h Preparation or preservation holding time was exceeded

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: July 21, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD and Reanalysis: additional analysis for 624832

Client Sample ID: BRA-PZ-74I	Project: GPCC00101
Sample ID: 627361001	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-JUN-23 09:40	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	hHU	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	07/12/23	0929	2456195	1
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	PRB	07/18/23	2050	2450023	2
Barium		0.0586	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00258	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00704	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00276	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.0262	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	07/19/23	0023	2450023	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JD2	06/27/23	0750	2450022
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	07/11/23	1120	2456194

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Georgia Power Company, Southern  
Address : Company  
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: July 21, 2023

Contact: Joju Abraham

Project: Branch CCR Groundwater Compliance APBCD and Reanalysis: additional analysis for 624832

Client Sample ID: BRA-PZ-74I  
Sample ID: 627361001  
Matrix: WG  
Collect Date: 06-JUN-23  
Receive Date: 06-JUN-23  
Collector: Client

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.18	+/-1.22	1.82	+/-1.34	3.00	pCi/L			JE1	07/15/23	1514	2451868	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.80	+/-1.54	1.82	+/-2.01		pCi/L			NXL1	07/21/23	0828	2451867	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		5.63	+/-0.932	0.303	+/-1.50	1.00	pCi/L			LXP1	07/20/23	1040	2451862	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2451868	71.8	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: July 21, 2023

Page 1 of 6

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 627361

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
QC1205443726	LCS										
Antimony	0.0500			0.0492	mg/L		98.4	(80%-120%)	PRB	07/19/23	00:19
Arsenic	0.0500			0.0487	mg/L		97.4	(80%-120%)		07/18/23	20:46
Barium	0.0500			0.0499	mg/L		99.8	(80%-120%)			
Beryllium	0.0500			0.0548	mg/L		110	(80%-120%)			
Cadmium	0.0500			0.0505	mg/L		101	(80%-120%)			
Chromium	0.0500			0.0498	mg/L		99.6	(80%-120%)			
Cobalt	0.0500			0.0496	mg/L		99.2	(80%-120%)			
Lead	0.0500			0.0521	mg/L		104	(80%-120%)			
Lithium	0.0500			0.0532	mg/L		106	(80%-120%)			
Molybdenum	0.0500			0.0509	mg/L		102	(80%-120%)			
Selenium	0.0500			0.0489	mg/L		97.7	(80%-120%)			
Thallium	0.0500			0.0510	mg/L		102	(80%-120%)			
QC1205443725	MB										
Antimony			U	ND	mg/L					07/19/23	00:16

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 627361

Page 2 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Arsenic			U	ND	mg/L				PRB	07/18/23	20:43
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Cadmium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205443727 627361001 MS											
Antimony	0.0500	U	ND	0.0495	mg/L		98.9	(75%-125%)		07/19/23	00:27
Arsenic	0.0500	U	ND	0.0504	mg/L		98.5	(75%-125%)		07/18/23	20:54
Barium	0.0500		0.0586	0.107	mg/L		96.5	(75%-125%)			
Beryllium	0.0500	U	ND	0.0569	mg/L		114	(75%-125%)			



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 627361

Page 3 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Cadmium	0.0500	U	ND	0.0493	mg/L		98.4	(75%-125%)	PRB	07/18/23	20:54
Chromium	0.0500	U	ND	0.0496	mg/L		99	(75%-125%)			
Cobalt	0.0500		0.00258	0.0516	mg/L		98	(75%-125%)			
Lead	0.0500	U	ND	0.0503	mg/L		101	(75%-125%)			
Lithium	0.0500	J	0.00704	0.0611	mg/L		108	(75%-125%)			
Molybdenum	0.0500		0.00276	0.0542	mg/L		103	(75%-125%)			
Selenium	0.0500		0.0262	0.0772	mg/L		102	(75%-125%)			
Thallium	0.0500	U	ND	0.0493	mg/L		98.5	(75%-125%)			
QC1205443728	627361001	MSD									
Antimony	0.0500	U	ND	0.0522	mg/L	5.35	104	(0%-20%)		07/19/23	00:30
Arsenic	0.0500	U	ND	0.0525	mg/L	4.09	103	(0%-20%)		07/18/23	20:57
Barium	0.0500		0.0586	0.109	mg/L	2.27	101	(0%-20%)			
Beryllium	0.0500	U	ND	0.0612	mg/L	7.36	122	(0%-20%)			
Cadmium	0.0500	U	ND	0.0519	mg/L	5.22	104	(0%-20%)			
Chromium	0.0500	U	ND	0.0527	mg/L	5.94	105	(0%-20%)			
Cobalt	0.0500		0.00258	0.0540	mg/L	4.65	103	(0%-20%)			

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 627361

Page 4 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Lead	0.0500	U	ND	0.0519	mg/L	2.97	104	(0%-20%)	PRB	07/18/23	20:57
Lithium	0.0500	J	0.00704	0.0648	mg/L	5.94	116	(0%-20%)			
Molybdenum	0.0500		0.00276	0.0570	mg/L	5.14	109	(0%-20%)			
Selenium	0.0500		0.0262	0.0814	mg/L	5.25	110	(0%-20%)			
Thallium	0.0500	U	ND	0.0504	mg/L	2.31	101	(0%-20%)			
QC1205443729 627361001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		07/19/23	00:37
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)		07/18/23	21:04
Barium			58.6		11.6	ug/L	1.38	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			2.58	J	0.526	ug/L	1.9	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lithium		J	7.04	U	ND	ug/L	N/A	(0%-20%)			
Molybdenum			2.76	J	0.532	ug/L	3.69	(0%-20%)			

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 627361

Page 5 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2450023										
Selenium		26.2	J	4.52	ug/L	13.8		(0%-20%)	PRB	07/18/23	21:04
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	2456195										
QC1205453947	627361001	DUP									
Mercury	hHU	ND	hHU	ND	mg/L	N/A			JP2	07/12/23	09:31
QC1205453946	LCS										
Mercury	0.00200			0.00201	mg/L		101	(80%-120%)		07/12/23	09:28
QC1205453945	MB										
Mercury			U	ND	mg/L					07/12/23	09:26
QC1205453948	627361001	MS									
Mercury	0.00200	hHU	ND	hH	0.00199	mg/L	99.6	(75%-125%)		07/12/23	09:33
QC1205453949	627361001	SDILT									
Mercury	hHU	ND	hHU	ND	ug/L	N/A		(0%-10%)		07/12/23	09:34

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 627361

Page 6 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
NI	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 627361**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2450023

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2450022

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I
1205443725	Method Blank (MB)ICP-MS
1205443726	Laboratory Control Sample (LCS)
1205443729	627361001(BRA-PZ-74IL) Serial Dilution (SD)
1205443727	627361001(BRA-PZ-74IS) Matrix Spike (MS)
1205443728	627361001(BRA-PZ-74ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Product:** Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

**Analytical Method:** SW846 7470A

**Analytical Procedure:** GL-MA-E-010 REV# 39

**Analytical Batch:** 2456195

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 39

**Preparation Batch:** 2456194

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
627361001	BRA-PZ-74I
1205453945	Method Blank (MB)CVAA
1205453946	Laboratory Control Sample (LCS)
1205453949	627361001(BRA-PZ-74IL) Serial Dilution (SD)
1205453947	627361001(BRA-PZ-74ID) Sample Duplicate (DUP)
1205453948	627361001(BRA-PZ-74IS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Holding Time Specifications**

GEL assigns holding times based on the associated methodology. Holding time is measured by comparison of the date and time of sample collection to the date and time of sample preparation and analysis. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. Samples (See Below) did not meet the specified holding time requirements. Samples were logged in beyond the required holding time.

<b>Sample</b>	<b>Value</b>
1205453947 (BRA-PZ-74IDUP)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23
1205453948 (BRA-PZ-74IMS)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23
1205453949 (BRA-PZ-74ISDILT)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23
627361001 (BRA-PZ-74I)	Received 06-JUN-23, within holding, analyzed 12-JUL-23, out of holding 04-JUL-23 and Received 06-JUN-23, within holding, prepped 11-JUL-23, out of holding 04-JUL-23

**Radiochemistry**

**Product: Radium-226+Radium-228 Calculation**

**Analytical Method: Calculation**

**Analytical Procedure: GL-RAD-D-003 REV# 45**

**Analytical Batch: 2451867**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: GFPC Ra228, Liquid**

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2451868

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I
1205446623	Method Blank (MB)
1205446624	627278001(NonSDG) Sample Duplicate (DUP)
1205446625	Laboratory Control Sample (LCS)
1205446626	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205446623 (MB)	Radium-228	Result: 2.55 pCi/L > MDA: 2.12 pCi/L <= RDL: 3.00 pCi/L

**Duplication Criteria between LCS and LCSD**

The Laboratory Control Sample and Laboratory Control Sample Duplicate (See Below) do not meet the duplication requirement; however, they both meet the spiked recovery requirement.

Sample	Analyte	Value
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1205446625 (LCS) and 1205446626 (LCSD)	Radium-228	RPD 27.5* (0%-20%)
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**Technical Information**

**Negative > 3 sigma TPU**

Sample result was more negative than the three sigma TPU. The background control chart was examined and the detector was determined to be fully functional.

Sample	Analyte	Value
1205446624 (Non SDG 627278001DUP)	Radium-228	Negative Result > 3 sigma value

**Product: Lucas Cell, Ra226, Liquid**

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2451862

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
627361001	BRA-PZ-74I
1205446612	Method Blank (MB)
1205446613	627278001(NonSDG) Sample Duplicate (DUP)
1205446614	627278001(NonSDG) Matrix Spike (MS)
1205446615	Laboratory Control Sample (LCS)
1205446616	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205446613 (Non SDG 627278001DUP)	Radium-226	RPD 200* (0.0%-100.0%) RER 2.44 (0-3)



**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

**Client :** Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160

**Report Date:** July 21, 2023  
**Page 1 of 2**

**Atlanta, Georgia**

**Contact:** Joju Abraham

**Workorder:** 627361

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
<b>Rad Gas Flow</b>									
Batch	2451868								
QC1205446624	627278001 DUP								
Radium-228	U	2.18	U	-2.11	pCi/L	0		N/A JE1	07/15/23 15:12
	Uncert:	+/-1.50		+/-1.21					
	TPU:	+/-1.61		+/-1.21					
QC1205446625	LCS								
Radium-228	79.2			88.5	pCi/L		112 (75%-125%)	JE1	07/15/23 15:13
	Uncert:			+/-5.00					
	TPU:			+/-23.3					
QC1205446626	LCSD								
Radium-228	79.2			67.0	pCi/L	27.5*	84.6 (0%-20%)	JE1	07/15/23 15:13
	Uncert:			+/-4.41					
	TPU:			+/-17.6					
QC1205446623	MB								
Radium-228				2.55	pCi/L			JE1	07/15/23 15:12
	Uncert:			+/-1.41					
	TPU:			+/-1.56					
<b>Rad Ra-226</b>									
Batch	2451862								
QC1205446613	627278001 DUP								
Radium-226	U	0.000		0.644	pCi/L	200*	(0% - 100%)	LXP1	07/20/23 11:19
	Uncert:	+/-0.239		+/-0.445					
	TPU:	+/-0.239		+/-0.459					
QC1205446615	LCS								
Radium-226	26.3			21.2	pCi/L		80.5 (75%-125%)	LXP1	07/20/23 11:19
	Uncert:			+/-1.83					
	TPU:			+/-4.55					
QC1205446616	LCSD								
Radium-226	26.3			23.7	pCi/L	11.2	90.1 (0%-20%)	LXP1	07/20/23 11:19
	Uncert:			+/-1.96					
	TPU:			+/-4.88					
QC1205446612	MB								
Radium-226			U	0.311	pCi/L			LXP1	07/20/23 11:19
	Uncert:			+/-0.338					
	TPU:			+/-0.346					
QC1205446614	627278001 MS								
Radium-226	131 U	0.000		139	pCi/L		106 (75%-125%)	LXP1	07/20/23 11:19
	Uncert:	+/-0.239		+/-10.7					
	TPU:	+/-0.239		+/-27.3					

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

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## QC Summary

Workorder: 627361

Page 2 of 2

Parname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- UI Gamma Spectroscopy--Uncertain identification
- BD Results are either below the MDC or tracer recovery is low
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- M M if above MDC and less than LLD
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- FA Failed analysis.
- UJ Gamma Spectroscopy--Uncertain identification
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- N1 See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- \*\* Analyte is a Tracer compound
- M REMP Result > MDC/CL and < RDL
- J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
**Chain of Custody and Analytical Request**  
**GEL Project Manager: Erin Trent**

**GEL Work Order Number:** \_\_\_\_\_  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

**GEL Laboratories, LLC**  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Send Results To: SCS & Geosyntec Contacts

Sample ID: \_\_\_\_\_  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (5) Yes, please supply isotopic info	Should this sample be considered:	Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Comments
BRA-PZ-741	06/06/23	0940	G	N	WG		<input checked="" type="checkbox"/> Known or possible Hazards <input type="checkbox"/> Other	C1, F, SO4, TDS, NO3 EPA 300, SM 2540C Total Carb. & Bicarb Alk SM 2320B Metals * EPA 6020, 7470 Sulfide SM 4500	Note: extra sample is required for sample specific QC <b>Task Code: BRA-CCR-ASSMT-2023S1</b> field pH = 5.83 field ferrous iron = 1.5 mg/L	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	6/6/23	1539	<i>[Signature]</i>	6/6/23	1539
2					
3					

**TAT Requested:** Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

**Additional Remarks:** \* Metals: B,Ca,Se,Fe,Mg,Mn,K,Na,Hg

**For Lab Receiving Use Only: Custody Seal Intact?**  Yes  No **Cooler Temp:** \_\_\_\_\_ °C

**Sample Collection Time Zone:**  Eastern  Pacific  Central  Mountain  Other:

**> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)**

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

TSCA Regulated: \_\_\_\_\_  
 PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

ET

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624-832</u>	
Received By: <u>QG</u>		Date Received: <u>6/6/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other	
		<u>nla</u>	
Suspected Hazard Information		Yes	No
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?			If D or E is yes, select Hazards below: PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
Sample Receipt Criteria		Yes	No
			Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1°C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>122-20</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
			Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
			Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: <u>No container count on COC</u> Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AS Date 6/7/23 Page 1 of 1

**List of current GEL Certifications as of 21 July 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



July 20, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 628245

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 628245 GEL Work Order: 628245

**The Qualifiers in this report are defined as follows:**

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a Tracer compound

\*\* Analyte is a surrogate compound

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: July 20, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-75I	Project: GPCC00101
Sample ID: 628245001	Client ID: GPCC001
Matrix: WG	
Collect Date: 05-JUL-23 13:45	
Receive Date: 06-JUL-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>EPA 300.0 Anions Liquid "As Received"</b>												
Sulfate		267	5.32	16.0	mg/L		40	JLD1	07/07/23	0019	2454806	1
Chloride		7.18	0.0670	0.200	mg/L		1	JLD1	07/06/23	2008	2454806	2
Fluoride		0.157	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3005A/6020B "As Received"</b>												
Boron		1.29	0.0520	0.150	mg/L	1.00	10	PRB	07/08/23	0714	2454727	3
Calcium		48.7	0.0800	0.200	mg/L	1.00	1	PRB	07/08/23	0648	2454727	4
Selenium		0.0732	0.00150	0.00500	mg/L	1.00	1					
<b>Solids Analysis</b>												
<b>SM2540C Dissolved Solids "As Received"</b>												
Total Dissolved Solids		487	2.38	10.0	mg/L			CH6	07/07/23	1017	2454985	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	CD3	07/06/23	1450	2454726

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	

**Notes:**

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: July 20, 2023

Page 1 of 4

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 628245

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2454806										
QC1205451787	628245001	DUP									
Chloride		7.18		7.18	mg/L	0.0125		(0%-20%)	JLD1	07/06/23	21:11
Fluoride		0.157		0.168	mg/L	7.01	^	(+/-0.100)			
Sulfate		267		266	mg/L	0.374		(0%-20%)		07/07/23	00:50
QC1205451786	LCS										
Chloride	5.00			4.88	mg/L			97.6 (90%-110%)		07/06/23	22:45
Fluoride	2.50			2.57	mg/L			103 (90%-110%)			
Sulfate	10.0			9.98	mg/L			99.8 (90%-110%)			
QC1205451785	MB										
Chloride			U	ND	mg/L					07/06/23	22:14
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205451788	628245001	PS									
Chloride	5.00	7.18		14.0	mg/L			137* (90%-110%)		07/06/23	21:42
Fluoride	2.50	0.157		3.26	mg/L			124* (90%-110%)			
Sulfate	10.0	6.67		16.5	mg/L			98.6 (90%-110%)		07/07/23	01:22

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## QC Summary

Workorder: 628245

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2454727										
QC1205451585	LCS										
Boron	0.100			0.115	mg/L		115	(80%-120%)	PRB	07/08/23	06:44
Calcium	2.00			2.13	mg/L		106	(80%-120%)			
Selenium	0.0500			0.0493	mg/L		98.6	(80%-120%)			
QC1205451584	MB										
Boron			U	ND	mg/L					07/08/23	06:41
Calcium			U	ND	mg/L						
Selenium			U	ND	mg/L						
QC1205451586	628245001 MS										
Boron	0.100	1.29		1.37	mg/L		N/A	(75%-125%)		07/08/23	07:17
Calcium	2.00	48.7		50.7	mg/L		N/A	(75%-125%)		07/08/23	06:52
Selenium	0.0500	0.0732		0.125	mg/L		104	(75%-125%)			
QC1205451587	628245001 MSD										
Boron	0.100	1.29		1.42	mg/L	3.68	N/A	(0%-20%)		07/08/23	07:21
Calcium	2.00	48.7		51.0	mg/L	0.498	N/A	(0%-20%)		07/08/23	06:55
Selenium	0.0500	0.0732		0.129	mg/L	2.76	111	(0%-20%)			
QC1205451588	628245001 SDILT										
Boron		129		26.0	ug/L	.524		(0%-20%)		07/08/23	07:25
Calcium		48700		9730	ug/L	.0124		(0%-20%)		07/08/23	07:02

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 628245

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2454727										
Selenium		73.2		14.7	ug/L	.458		(0%-20%)	PRB	07/08/23	07:02
<b>Solids Analysis</b>											
Batch	2454985										
QC1205451963	628137005	DUP									
Total Dissolved Solids		1400		1440	mg/L	2.82		(0%-5%)	CH6	07/07/23	10:17
QC1205451962	LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)		07/07/23	10:17
QC1205451961	MB										
Total Dissolved Solids			U	ND	mg/L					07/07/23	10:17

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 628245

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
FB		Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies									
N1		See case narrative									
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.									
R		Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.									
B		The target analyte was detected in the associated blank.									
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
J		See case narrative for an explanation									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 628245**

**Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2454727

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2454726

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
628245001	BRA-PZ-75I
1205451584	Method Blank (MB)ICP-MS
1205451585	Laboratory Control Sample (LCS)
1205451588	628245001(BRA-PZ-75IL) Serial Dilution (SD)
1205451586	628245001(BRA-PZ-75IS) Matrix Spike (MS)
1205451587	628245001(BRA-PZ-75ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>628245</b>
	<b>001</b>
Boron	10X

## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 32

**Analytical Batch:** 2454806

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
628245001	BRA-PZ-75I
1205451785	Method Blank (MB)
1205451786	Laboratory Control Sample (LCS)
1205451787	628245001(BRA-PZ-75I) Sample Duplicate (DUP)
1205451788	628245001(BRA-PZ-75I) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Chloride	1205451788 (BRA-PZ-75IPS)	137* (90%-110%)
Fluoride	1205451788 (BRA-PZ-75IPS)	124* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205451787 (BRA-PZ-75IDUP), 1205451788 (BRA-PZ-75IPS) and 628245001 (BRA-PZ-75I) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	<b>628245</b>
	<b>001</b>
Sulfate	40X

**Miscellaneous Information**

**Manual Integrations**

Samples 1205451787 (BRA-PZ-75IDUP) and 628245001 (BRA-PZ-75I) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 21

**Analytical Batch:** 2454985

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
628245001	BRA-PZ-75I
1205451961	Method Blank (MB)
1205451962	Laboratory Control Sample (LCS)
1205451963	628137005(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205451963 (Non SDG 628137005DUP).

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.





**Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

628245

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Page: 1 of 1  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

GEL Work Order Number: \_\_\_\_\_

GEL Project Manager: Erin Trent

Client Name: GA Power  
 Phone # 404-506-7116

Project/Site Name: Plant Branch Ash Ponds - BCD  
 Fax # \_\_\_\_\_

Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: D. Soltan ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (0)	Sample Matrix (4)	Radioactive (If yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers		Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments Note: extra sample is required for sample specific QC Task Code: BRA-CGR-ASSMT-2023S1
								Cl, F, SO4, TDS EPA 300, SM 2540C	Metals * EPA 6020			
BRA-PZ-751	07/05/23	1345	G	N	WG			3	2	1		field pH = 5.68

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>Dennis Gorman</i>	7/10/23	0852	<i>Erin Trent</i>	7/10/23	8:52
<i>Erin Trent</i>	7/10/23	1:18	<i>Erin Trent</i>	7/10/23	1318

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR)

- Chain of Custody Number = Client Determined
- QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
- Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
- Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
- Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
- Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

**KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other	Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected, from, odd matrices, etc.)
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	Hg = Mercury Se = Selenium Ag = Silver MR = Misc. RCRA metals	FL = Flammable/Ignitable CO = Corrosive RB = Reactive	OT = Other / Unknown (i.e.: High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:	
		TSCA Regulated PCB = Polychlorinated biphenyls		



**SAMPLE RECEIPT & REVIEW FORM**

Client: GPCC  
 Received By: SNS  
 Carrier and Tracking Number

SDG/AR/COC/Work Order: 628245  
 Date Received: 7/6/23  
 Circle Applicable: Field Services Courier Other  
 FedEx Express FedEx Ground UPS

Suspected Hazard Information  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

- | Yes | No                                  |  |
|-----|-------------------------------------|--|
|     | <input checked="" type="checkbox"/> | Hazard Class Shipped: _____ UN#: _____<br>If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___                |
|     | <input checked="" type="checkbox"/> | COC notation or radioactive stickers on containers equal client designation.   |
|     | <input checked="" type="checkbox"/> | Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>00</u> CPM/mR/Hr<br>Classified as: Rad 1 Rad 2 Rad 3 |
|     | <input checked="" type="checkbox"/> | COC notation or hazard labels on containers equal client designation.  |
|     | <input checked="" type="checkbox"/> | If D or E is yes, select Hazards below.<br>PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____                     |
|     | <input checked="" type="checkbox"/> | E) Did the RSO identify possible hazards?  |

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>2°C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

**List of current GEL Certifications as of 20 July 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



June 14, 2023

Joju Abraham  
Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308

Re: Branch CCR Groundwater Compliance APBCD  
Work Order: 624831

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 06, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,

Anna Johnson for  
Erin Trent  
Project Manager

Purchase Order: GPC82177-0006  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624832 GEL Work Order: 624832

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 624831 GEL Work Order: 624831

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by \_\_\_\_\_

*Cinna Johnson*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-5 Project: GPCC00101  
Sample ID: 624831001 Client ID: GPCC001  
Matrix: WG  
Collect Date: 05-JUN-23 11:05  
Receive Date: 06-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.81			SU			EOS1	06/05/23	1105	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		6			mg/L			EOS1	06/05/23	1105	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		62.1	1.33	4.00	mg/L		10	JLD1	06/06/23	2358	2439679	3
Nitrate-N	U	ND	0.0660	0.200	mg/L		2	JLD1	06/06/23	2222	2439679	4
Chloride		0.693	0.0670	0.200	mg/L		1	JLD1	06/06/23	1632	2439679	5
Fluoride		0.113	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Boron		0.366	0.0260	0.0750	mg/L	1.00	5	PRB	06/12/23	2012	2439741	6
Calcium		36.8	0.0800	0.200	mg/L	1.00	1	PRB	06/12/23	2044	2439741	7
Cobalt	J	0.000852	0.000300	0.00100	mg/L	1.00	1					
Iron		21.1	0.0330	0.100	mg/L	1.00	1					
Magnesium		5.14	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.751	0.00100	0.00500	mg/L	1.00	1					
Potassium		11.6	0.0800	0.300	mg/L	1.00	1					
Sodium		2.97	0.0800	0.250	mg/L	1.00	1					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		232	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1721	2440523	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		96.1	0.725	2.00	mg/L			JW2	06/08/23	1024	2440524	10
Bicarbonate alkalinity (CaCO3)		96.1	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-5 Project: GPCC00101  
Sample ID: 624831001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A PREP			JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-4	Project: GPCC00101
Sample ID: 624831002	Client ID: GPCC001
Matrix: WG	
Collect Date: 05-JUN-23 13:15	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.79			SU			EOS1	06/05/23	1315	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		2			mg/L			EOS1	06/05/23	1315	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.112	0.0330	0.100	mg/L		1	JLD1	06/06/23	1529	2439679	3
Chloride		19.3	0.335	1.00	mg/L		5	JLD1	06/06/23	1943	2439679	4
Nitrate-N		1.16	0.165	0.500	mg/L		5					
Sulfate		284	5.32	16.0	mg/L		40	JLD1	06/06/23	2015	2439679	5
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Cobalt		0.00586	0.000300	0.00100	mg/L	1.00	1	PRB	06/12/23	2102	2439741	6
Iron		2.23	0.0330	0.100	mg/L	1.00	1					
Magnesium		24.6	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.821	0.00100	0.00500	mg/L	1.00	1					
Potassium		13.8	0.0800	0.300	mg/L	1.00	1					
Sodium		40.9	0.0800	0.250	mg/L	1.00	1					
Calcium		95.2	1.60	4.00	mg/L	1.00	20	PRB	06/13/23	1512	2439741	7
Boron		1.05	0.130	0.375	mg/L	1.00	25	PRB	06/13/23	0921	2439741	8
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		593	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	9
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1721	2440523	10
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		117	0.725	2.00	mg/L			JW2	06/08/23	1028	2440524	11
Bicarbonate alkalinity (CaCO3)		117	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-4      Project: GPCC00101  
Sample ID: 624831002      Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS	3005A PREP		JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	EPA 300.0		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		
10	SM 4500-S (2-) D		
11	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor      Lc/LC: Critical Level  
DL: Detection Limit      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit

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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-3      Project: GPCC00101  
Sample ID: 624831003      Client ID: GPCC001  
Matrix: WG  
Collect Date: 05-JUN-23 15:10  
Receive Date: 06-JUN-23  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		8.40			SU			EOS1	06/05/23	1510	2439614	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		0			mg/L			EOS1	06/05/23	1510	2439614	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.129	0.0330	0.100	mg/L		1	JLD1	06/06/23	1600	2439679	3
Nitrate-N	U	ND	0.0330	0.100	mg/L		1					
Chloride		29.6	2.68	8.00	mg/L		40	JLD1	06/07/23	0932	2439679	4
Sulfate		636	5.32	16.0	mg/L		40					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1	PRB	06/12/23	2106	2439741	5
Iron		0.123	0.0330	0.100	mg/L	1.00	1					
Magnesium		34.8	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.0701	0.00100	0.00500	mg/L	1.00	1					
Potassium		14.9	0.0800	0.300	mg/L	1.00	1					
Calcium		166	1.60	4.00	mg/L	1.00	20	PRB	06/13/23	1515	2439741	6
Sodium		50.0	1.60	5.00	mg/L	1.00	20					
Boron		1.28	0.130	0.375	mg/L	1.00	25	PRB	06/13/23	0923	2439741	7
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		826	4.76	20.0	mg/L			CH6	06/07/23	1447	2440211	8
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1722	2440523	9
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		148	0.725	2.00	mg/L			JW2	06/08/23	1032	2440524	10
Bicarbonate alkalinity (CaCO3)		146	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)		2.20	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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## Certificate of Analysis

Report Date: June 14, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-IW-B-3  
Sample ID: 624831003

Project: GPCC00101  
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A PREP			JD2	06/07/23		0730		2439740		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		
9	SM 4500-S (2-) D		
10	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 15, 2023

Company : Georgia Power Company, Southern Company  
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham  
 Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I	Project: GPCC00101
Sample ID: 624832001	Client ID: GPCC001
Matrix: WG	
Collect Date: 06-JUN-23 09:40	
Receive Date: 06-JUN-23	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Field Data</b>												
Client collected Field pH "As Received"												
Field pH		5.83			SU			EOS1	06/06/23	0940	2439624	1
GEL Field Ferrous Iron "As Received"												
Field Ferrous Iron		1.5			mg/L			EOS1	06/06/23	0940	2439624	2
<b>Ion Chromatography</b>												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		304	5.32	16.0	mg/L		40	JLD1	06/07/23	0134	2439679	3
Chloride		8.22	0.0670	0.200	mg/L		1	JLD1	06/06/23	1911	2439679	4
Fluoride	J	0.0891	0.0330	0.100	mg/L		1					
Nitrate-N		0.793	0.0330	0.100	mg/L		1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3005A/6020B "As Received"												
Iron		1.38	0.0330	0.100	mg/L	1.00	1	BAJ	06/12/23	1506	2439851	5
Magnesium		37.9	0.0100	0.0300	mg/L	1.00	1					
Manganese		0.602	0.00100	0.00500	mg/L	1.00	1					
Potassium		5.65	0.0800	0.300	mg/L	1.00	1					
Selenium		0.0237	0.00150	0.00500	mg/L	1.00	1					
Sodium		28.8	0.0800	0.250	mg/L	1.00	1					
Boron		1.24	0.0520	0.150	mg/L	1.00	10	BAJ	06/13/23	1146	2439851	6
Calcium		70.1	0.800	2.00	mg/L	1.00	10					
<b>Solids Analysis</b>												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		523	2.38	10.0	mg/L			CH6	06/07/23	1447	2440211	7
<b>Spectrometric Analysis</b>												
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND	0.0330	0.100	mg/L		1	JW2	06/09/23	1723	2440523	8
<b>Titration and Ion Analysis</b>												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		43.4	0.725	2.00	mg/L			JW2	06/08/23	1036	2440524	9
Bicarbonate alkalinity (CaCO3)		43.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
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# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: June 15, 2023

Company : Georgia Power Company, Southern Company  
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308  
Contact: Joju Abraham  
Project: Branch CCR Groundwater Compliance APBCD

Client Sample ID: BRA-PZ-74I Project: GPCC00101  
Sample ID: 624832001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	ICP-MS 3005A	PREP		JD2	06/07/23		0730		2439850		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	GEL Field Method		
3	EPA 300.0		
4	EPA 300.0		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		
8	SM 4500-S (2-) D		
9	SM 2320B		

### Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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## QC Summary

Report Date: June 15, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624832

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
QC1205425631	624831001	DUP									
Chloride		0.693		0.685	mg/L	1.22	^	(+/-0.200)	JLD1	06/06/23	17:04
Fluoride		0.113		0.114	mg/L	1.32	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				06/06/23	22:54
Sulfate		62.1		61.9	mg/L	0.445		(0%-20%)		06/07/23	00:30
QC1205425630	LCS										
Chloride	5.00			4.83	mg/L			96.5 (90%-110%)		06/06/23	18:39
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.86	mg/L			98.6 (90%-110%)			
QC1205425629	MB										
Chloride			U	ND	mg/L					06/06/23	18:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205425632	624831001	PS									
Chloride	5.00	0.693		5.45	mg/L			95.2 (90%-110%)		06/06/23	17:36

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## QC Summary

Workorder: 624832

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
Fluoride	2.50	0.113		2.54	mg/L		97.1	(90%-110%)	JLD1	06/06/23	17:36
Nitrate-N	2.50	U	ND	2.22	mg/L		88.7*	(90%-110%)		06/06/23	23:26
Sulfate	10.0	6.21		16.1	mg/L		98.6	(90%-110%)		06/07/23	01:02
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
QC1205425805	LCS										
Boron	0.100			0.112	mg/L		112	(80%-120%)	BAJ	06/13/23	11:45
Calcium	2.00			2.15	mg/L		107	(80%-120%)			
Iron	2.00			2.06	mg/L		103	(80%-120%)		06/12/23	15:03
Magnesium	2.00			2.22	mg/L		111	(80%-120%)			
Manganese	0.0500			0.0521	mg/L		104	(80%-120%)			
Potassium	2.00			2.07	mg/L		104	(80%-120%)			
Selenium	0.0500			0.0499	mg/L		99.7	(80%-120%)			
Sodium	2.00			2.18	mg/L		109	(80%-120%)			
QC1205425804	MB										
Boron			U	ND	mg/L					06/13/23	11:43
Calcium			U	ND	mg/L						
Iron			U	ND	mg/L					06/12/23	14:59



# GEL LABORATORIES LLC

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## QC Summary

Workorder: 624832

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
Magnesium			U	ND	mg/L				BAJ	06/12/23	14:59
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205425806 624832001 MS											
Boron	0.100	1.24		1.38	mg/L		N/A	(75%-125%)		06/13/23	11:48
Calcium	2.00	70.1		73.0	mg/L		N/A	(75%-125%)			
Iron	2.00	1.38		3.47	mg/L		104	(75%-125%)		06/12/23	15:10
Magnesium	2.00	37.9		41.8	mg/L		N/A	(75%-125%)			
Manganese	0.0500	0.602		0.681	mg/L		N/A	(75%-125%)			
Potassium	2.00	5.65		8.00	mg/L		117	(75%-125%)			
Selenium	0.0500	0.0237		0.0747	mg/L		102	(75%-125%)			
Sodium	2.00	28.8		32.5	mg/L		N/A	(75%-125%)			
QC1205425807 624832001 MSD											
Boron	0.100	1.24		1.34	mg/L	2.8	N/A	(0%-20%)		06/13/23	11:50
Calcium	2.00	70.1		71.0	mg/L	2.84	N/A	(0%-20%)			

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 624832

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439851										
Iron	2.00	1.38		3.22	mg/L	7.5	91.9	(0%-20%)	BAJ	06/12/23	15:14
Magnesium	2.00	37.9		39.5	mg/L	5.72	N/A	(0%-20%)			
Manganese	0.0500	0.602		0.640	mg/L	6.32	N/A	(0%-20%)			
Potassium	2.00	5.65		7.63	mg/L	4.73	98.9	(0%-20%)			
Selenium	0.0500	0.0237		0.0690	mg/L	7.9	90.6	(0%-20%)			
Sodium	2.00	28.8		30.2	mg/L	7.32	N/A	(0%-20%)			
QC1205425808 624832001 SDILT											
Boron		124		25.1	ug/L	1.01		(0%-20%)		06/13/23	11:52
Calcium		7010		1440	ug/L	2.91		(0%-20%)			
Iron		1380		287	ug/L	3.81		(0%-20%)		06/12/23	15:21
Magnesium		37900		7290	ug/L	3.77		(0%-20%)			
Manganese		602		124	ug/L	3.44		(0%-20%)			
Potassium		5650		1130	ug/L	.271		(0%-20%)			
Selenium		23.7	J	4.40	ug/L	7.28		(0%-20%)			
Sodium		28800		5590	ug/L	2.96		(0%-20%)			

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## QC Summary

Workorder: 624832

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2440211										
QC1205426454	624719002	DUP									
Total Dissolved Solids		562		556	mg/L	1.07		(0%-5%)	CH6	06/07/23	14:47
QC1205426452	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		06/07/23	14:47
QC1205426451	MB										
Total Dissolved Solids			U	ND	mg/L					06/07/23	14:47
<b>Spectrometric Analysis</b>											
Batch	2440523										
QC1205427032	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	06/09/23	17:18
QC1205427031	MB										
Total Sulfide			U	ND	mg/L					06/09/23	17:18
QC1205427035	624713005	PS									
Total Sulfide	0.400	U	ND	0.406	mg/L		101	(75%-125%)		06/09/23	17:18
QC1205427036	624713005	PSD									
Total Sulfide	0.400	U	ND	0.403	mg/L	0.552	101	(0%-15%)		06/09/23	17:18
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427040	624949002	DUP									
Alkalinity, Total as CaCO3		82.2		82.3	mg/L	0.122		(0%-20%)	JW2	06/08/23	10:41
Carbonate alkalinity (CaCO3)			U	ND	J	0.800		200			
QC1205427039	LCS										
Alkalinity, Total as CaCO3	50.0			51.4	mg/L		103	(90%-110%)		06/08/23	10:20

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## QC Summary

Workorder: 624832

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427041	624949002	MS									
Alkalinity, Total as CaCO3	50.0	82.2		135	mg/L		105	(80%-120%)	JW2	06/08/23	10:43

**Notes:**

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

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## QC Summary

Workorder: 624832

Page 7 of 7

<u>Parmname</u>	<u>NOM</u>	<u>Sample</u>	<u>Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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## QC Summary

Report Date: June 14, 2023

Page 1 of 7

Georgia Power Company, Southern Company  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 624831

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
QC1205425631	624831001	DUP									
Chloride		0.693		0.685	mg/L	1.22	^	(+/-0.200)	JLD1	06/06/23	17:04
Fluoride		0.113		0.114	mg/L	1.32	^	(+/-0.100)			
Nitrate-N	U	ND	U	ND	mg/L	N/A				06/06/23	22:54
Sulfate		62.1		61.9	mg/L	0.445		(0%-20%)		06/07/23	00:30
QC1205425630	LCS										
Chloride	5.00			4.83	mg/L			96.5 (90%-110%)		06/06/23	18:39
Fluoride	2.50			2.49	mg/L			99.6 (90%-110%)			
Nitrate-N	2.50			2.43	mg/L			97.2 (90%-110%)			
Sulfate	10.0			9.86	mg/L			98.6 (90%-110%)			
QC1205425629	MB										
Chloride			U	ND	mg/L					06/06/23	18:07
Fluoride			U	ND	mg/L						
Nitrate-N			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205425632	624831001	PS									
Chloride	5.00	0.693		5.45	mg/L			95.2 (90%-110%)		06/06/23	17:36

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## QC Summary

Workorder: 624831

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	2439679										
Fluoride	2.50	0.113		2.54	mg/L		97.1	(90%-110%)	JLD1	06/06/23	17:36
Nitrate-N	2.50	U	ND	2.22	mg/L		88.7*	(90%-110%)		06/06/23	23:26
Sulfate	10.0	6.21		16.1	mg/L		98.6	(90%-110%)		06/07/23	01:02
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
QC1205425680	LCS										
Boron	0.100			0.0972	mg/L		97.2	(80%-120%)	PRB	06/12/23	20:08
Calcium	2.00			2.07	mg/L		104	(80%-120%)			
Cobalt	0.0500			0.0503	mg/L		101	(80%-120%)			
Iron	2.00			1.97	mg/L		98.6	(80%-120%)			
Magnesium	2.00			1.96	mg/L		97.8	(80%-120%)			
Manganese	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Potassium	2.00			2.02	mg/L		101	(80%-120%)			
Sodium	2.00			1.98	mg/L		99.2	(80%-120%)			
QC1205425679	MB										
Boron			U	ND	mg/L					06/12/23	20:04
Calcium			U	ND	mg/L						
Cobalt			U	ND	mg/L						

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## QC Summary

Workorder: 624831

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
Iron			U	ND	mg/L				PRB	06/12/23	20:04
Magnesium			U	ND	mg/L						
Manganese			U	ND	mg/L						
Potassium			U	ND	mg/L						
Sodium			U	ND	mg/L						
QC1205425681 624831001 MS											
Boron	0.100	0.366		0.478	mg/L		112	(75%-125%)		06/12/23	20:15
Calcium	2.00	36.8		40.0	mg/L		N/A	(75%-125%)		06/12/23	20:48
Cobalt	0.0500	J 0.000852		0.0543	mg/L		107	(75%-125%)			
Iron	2.00	21.1		24.0	mg/L		N/A	(75%-125%)			
Magnesium	2.00	5.14		7.32	mg/L		109	(75%-125%)			
Manganese	0.0500	0.751		0.834	mg/L		N/A	(75%-125%)			
Potassium	2.00	11.6		14.3	mg/L		N/A	(75%-125%)			
Sodium	2.00	2.97		5.14	mg/L		108	(75%-125%)			
QC1205425682 624831001 MSD											
Boron	0.100	0.366		0.472	mg/L	1.29	106	(0%-20%)		06/12/23	20:19
Calcium	2.00	36.8		38.0	mg/L	5.01	N/A	(0%-20%)		06/12/23	20:51



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## QC Summary

Workorder: 624831

Page 4 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	2439741										
Cobalt	0.0500	J	0.000852	0.0515	mg/L	5.27	101	(0%-20%)	PRB	06/12/23	20:51
Iron	2.00		21.1	22.9	mg/L	4.47	N/A	(0%-20%)			
Magnesium	2.00		5.14	7.02	mg/L	4.14	94.3	(0%-20%)			
Manganese	0.0500		0.751	0.793	mg/L	5.06	N/A	(0%-20%)			
Potassium	2.00		11.6	13.7	mg/L	4.08	N/A	(0%-20%)			
Sodium	2.00		2.97	4.87	mg/L	5.36	94.8	(0%-20%)			
QC1205425683 624831001 SDILT											
Boron			73.2	15.6	ug/L	6.23		(0%-20%)		06/12/23	20:26
Calcium			36800	7010	ug/L	4.65		(0%-20%)		06/12/23	20:59
Cobalt		J	0.852	U	ug/L	N/A		(0%-20%)			
Iron			21100	4210	ug/L	.207		(0%-20%)			
Magnesium			5140	1060	ug/L	3.08		(0%-20%)			
Manganese			751	152	ug/L	1.08		(0%-20%)			
Potassium			11600	2200	ug/L	5.2		(0%-20%)			
Sodium			2970	591	ug/L	.607		(0%-20%)			

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## QC Summary

Workorder: 624831

Page 5 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Solids Analysis</b>											
Batch	2440211										
QC1205426456	624949002	DUP									
Total Dissolved Solids			134	138	mg/L	2.94		(0%-5%)	CH6	06/07/23	14:47
QC1205426452	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		06/07/23	14:47
QC1205426451	MB										
Total Dissolved Solids			U	ND	mg/L					06/07/23	14:47
<b>Spectrometric Analysis</b>											
Batch	2440523										
QC1205427032	LCS										
Total Sulfide	0.400			0.399	mg/L		99.7	(85%-115%)	JW2	06/09/23	17:18
QC1205427031	MB										
Total Sulfide			U	ND	mg/L					06/09/23	17:18
QC1205427035	624713005	PS									
Total Sulfide	0.400	U	ND	0.406	mg/L		101	(75%-125%)		06/09/23	17:18
QC1205427036	624713005	PSD									
Total Sulfide	0.400	U	ND	0.403	mg/L	0.552	101	(0%-15%)		06/09/23	17:18
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427040	624949002	DUP									
Alkalinity, Total as CaCO3			82.2	82.3	mg/L	0.122		(0%-20%)	JW2	06/08/23	10:41
Carbonate alkalinity (CaCO3)		U	ND	J	0.800	mg/L	200				
QC1205427039	LCS										
Alkalinity, Total as CaCO3	50.0			51.4	mg/L		103	(90%-110%)		06/08/23	10:20

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## QC Summary

Workorder: 624831

Page 6 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Titration and Ion Analysis</b>											
Batch	2440524										
QC1205427041	624949002	MS									
Alkalinity, Total as CaCO3	50.0	82.2		135	mg/L		105	(80%-120%)	JW2	06/08/23	10:43

### Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- NI See case narrative
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- B The target analyte was detected in the associated blank.
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- J See case narrative for an explanation

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## QC Summary

Workorder: 624831

Page 7 of 7

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624831**

## **Metals**

**Product:** Determination of Metals by ICP-MS

**Analytical Method:** SW846 3005A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 35

**Analytical Batch:** 2439741

**Preparation Method:** SW846 3005A

**Preparation Procedure:** GL-MA-E-006 REV# 14

**Preparation Batch:** 2439740

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205425679	Method Blank (MB) <b>ICP-MS</b>
1205425680	Laboratory Control Sample (LCS)
1205425683	624831001(BRA-IW-B-5L) Serial Dilution (SD)
1205425681	624831001(BRA-IW-B-5S) Matrix Spike (MS)
1205425682	624831001(BRA-IW-B-5SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Calibration Information**

#### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected.

#### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte

concentrations were within the linear calibration range of the instrument.

Analyte	624831		
	001	002	003
Boron	5X	25X	25X
Calcium	1X	20X	20X
Sodium	1X	1X	20X

## **General Chemistry**

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2439679

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205425629	Method Blank (MB)
1205425630	Laboratory Control Sample (LCS)
1205425631	624831001(BRA-IW-B-5) Sample Duplicate (DUP)
1205425632	624831001(BRA-IW-B-5) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Nitrate-N	1205425632 (BRA-IW-B-5PS)	88.7* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS), 624831001 (BRA-IW-B-5), 624831002 (BRA-IW-B-4) and 624831003 (BRA-IW-B-3) were diluted because target analyte

concentrations exceeded the calibration range. The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS), 624831001 (BRA-IW-B-5) and 624831002 (BRA-IW-B-4) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	624831		
	001	002	003
Chloride	1X	5X	40X
Nitrate-N	2X	5X	1X
Sulfate	10X	40X	40X

**Sample Re-analysis**

Sample 624831003 (BRA-IW-B-3) was re-analyzed to verify the result.

**Miscellaneous Information**

**Manual Integrations**

Samples 1205425631 (BRA-IW-B-5DUP), 624831001 (BRA-IW-B-5) and 624831003 (BRA-IW-B-3) were manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2440211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205426451	Method Blank (MB)
1205426452	Laboratory Control Sample (LCS)
1205426456	624949002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 624831003 (BRA-IW-B-3).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2440523

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205427031	Method Blank (MB)
1205427032	Laboratory Control Sample (LCS)
1205427035	624713005(NonSDG) Post Spike (PS)
1205427036	624713005(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2440524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624831001	BRA-IW-B-5
624831002	BRA-IW-B-4
624831003	BRA-IW-B-3
1205427039	Laboratory Control Sample (LCS)
1205427040	624949002(NonSDG) Sample Duplicate (DUP)
1205427041	624949002(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

Meets GEL's limits.

Sample	Analyte	Value
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1205427040 (Non SDG 624949002DUP)	Carbonate alkalinity (CaCO <sub>3</sub> )	28.6* (0%-20%)
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**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative  
Georgia Power Company  
SDG #: 624832**

**Metals**

**Product: Determination of Metals by ICP-MS**

**Analytical Method: SW846 3005A/6020B**

**Analytical Procedure: GL-MA-E-014 REV# 35**

**Analytical Batch: 2439851**

**Preparation Method: SW846 3005A**

**Preparation Procedure: GL-MA-E-006 REV# 14**

**Preparation Batch: 2439850**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205425804	Method Blank (MB)ICP-MS
1205425805	Laboratory Control Sample (LCS)
1205425808	624832001(BRA-PZ-74IL) Serial Dilution (SD)
1205425806	624832001(BRA-PZ-74IS) Matrix Spike (MS)
1205425807	624832001(BRA-PZ-74ISD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Calibration Information**

**ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

**Technical Information**

**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	<b>624832</b>
	<b>001</b>
Boron	10X
Calcium	10X

## General Chemistry

**Product:** Ion Chromatography

**Analytical Method:** EPA 300.0

**Analytical Procedure:** GL-GC-E-086 REV# 31

**Analytical Batch:** 2439679

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205425629	Method Blank (MB)
1205425630	Laboratory Control Sample (LCS)
1205425631	624831001(BRA-IW-B-5) Sample Duplicate (DUP)
1205425632	624831001(BRA-IW-B-5) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Nitrate-N	1205425632 (BRA-IW-B-5PS)	88.7* (90%-110%)

### **Technical Information**

#### **Sample Dilutions**

The following samples 1205425631 (BRA-IW-B-5DUP), 1205425632 (BRA-IW-B-5PS) and 624832001 (BRA-PZ-74I) were diluted because target analyte concentrations exceeded the calibration range. The following samples 1205425631 (BRA-IW-B-5DUP) and 1205425632 (BRA-IW-B-5PS) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	624832
	001
Sulfate	40X

### **Miscellaneous Information**

**Manual Integrations**

Sample 1205425631 (BRA-IW-B-5DUP) was manually integrated to correctly position the baseline as set in the calibration standards.

**Product: Solids, Total Dissolved**

**Analytical Method:** SM 2540C

**Analytical Procedure:** GL-GC-E-001 REV# 20

**Analytical Batch:** 2440211

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205426451	Method Blank (MB)
1205426452	Laboratory Control Sample (LCS)
1205426454	624719002(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Miscellaneous Information**

**Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205426454 (Non SDG 624719002DUP).

**Product: Sulfide, Total**

**Analytical Method:** SM 4500-S (2-) D

**Analytical Procedure:** GL-GC-E-052 REV# 12

**Analytical Batch:** 2440523

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205427031	Method Blank (MB)
1205427032	Laboratory Control Sample (LCS)
1205427035	624713005(NonSDG) Post Spike (PS)
1205427036	624713005(NonSDG) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration,

continuing calibration, instrument controls and process controls where applicable.

**Product: Alkalinity**

**Analytical Method:** SM 2320B

**Analytical Procedure:** GL-GC-E-033 REV# 15

**Analytical Batch:** 2440524

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
624832001	BRA-PZ-74I
1205427039	Laboratory Control Sample (LCS)
1205427040	624949002(NonSDG) Sample Duplicate (DUP)
1205427041	624949002(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Duplicate Relative Percent Difference (RPD) Statement**

Meets GEL's limits.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1205427040 (Non SDG 624949002DUP)	Carbonate alkalinity (CaCO <sub>3</sub> )	28.6* (0%-20%)

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: \_\_\_\_\_ of \_\_\_\_\_  
 Project # \_\_\_\_\_  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

**GEL** Laboratories LLC **624831**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics

**Chain of Custody and Analytical Request**

GEL Work Order Number: **GEL Project Manager: Erin Trent**  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: *J. Brasfield* ACC  
 Send Results To: SCS & Geosyntec Contacts

Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm/dd/yy)	*Time Collected (Military (hhmm) (hhmm))	QC Code (3)	Field Filtered (b)	Sample Matrix (6)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI
						Radioactive (if yes, please supply isotopic info)	(7) Known or possible Hazards	Total number of containers	CI, F, SO4, TDS, NO3 EPA 300, SM 2540C	Total Carb. & Bicarb Alk SM 2320B	Metals * EPA 6020	Sulfide SM 4500	
BRA-IW-B-5	06/05/23	1105	G	N	WG			3	✓	✓	✓	✓	field pH = 5.81 field ferrous iron = 6.0mg/L
BRA-IW-B-4	06/05/23	1315	G	N	WG			3	✓	✓	✓	✓	field pH = 5.79 field ferrous iron = 2.0mg/L
BRA-IW-B-3	06/05/23	1510	G	N	WG			3	✓	✓	✓	✓	field pH = 8.40 field ferrous iron = 0.0mg/L

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	6/6/23	0824	<i>[Signature]</i>	6/6/23	8:39
<i>[Signature]</i>	6/6/23	1:14	<i>[Signature]</i>	6/6/23	13:00

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Co,Fe,Mg,Mn,K,Na

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, C = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

Characteristic Hazards	Listed Waste	Other
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

**RCRA Metals**  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

**TSCA Regulated**  
 PCB = Polychlorinated biphenyls



**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>Epcc</u>		SDG/AR/COC/Work Order: <u>624831</u>		<u>FT</u>	
Received By: <u>Thyasia Tatum</u>		Date Received: <u>10/10/23</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services   Courier <u>Other</u>			
Suspected Hazard Information		Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>6</u> CPM / mR/Hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>	
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other: _____	
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC   COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs   Dry ice   None   Other: _____ *all temperatures are recorded in Celsius      TEMP: <u>2C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken   Damaged container   Leaking container   Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers   No times on containers   COC missing info   Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC   Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished   Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials MTB Date 10/18/23 Page 1 of 1



**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radiobiology | Speciality Analytics  
**Chain of Custody and Analytical Request**  
**GEL Project Manager: Erin Trent**

**GEL Work Order Number:** \_\_\_\_\_  
**GEL Project Manager:** Erin Trent  
 Phone # 404-506-7116  
 Fax # \_\_\_\_\_

Client Name: GA Power  
 Project/Site Name: Plant Branch Ash Ponds - BCD  
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

**GEL Laboratories, LLC**  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Send Results To: SCS & Geosyntec Contacts

Sample ID: \_\_\_\_\_  
 \* For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (5) Yes, please supply isotopic info	Should this sample be considered:	Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Comments
BRA-PZ-741	06/06/23	0940	G	N	WG		<input checked="" type="checkbox"/> Known or possible Hazards <input type="checkbox"/> Other	C1, F, SO4, TDS, NO3 EPA 300, SM 2540C Total Carb. & Bicarb Alk SM 2320B Metals * EPA 6020, 7470 Sulfide SM 4500 NI	Note: extra sample is required for sample specific QC Task Code: BRA-CCR-ASSMT-2023SI field pH = 5.83 field ferrous iron = 1.5 mg/L	

**Chain of Custody Signatures**

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	6/6/23	1539	<i>[Signature]</i>	6/6/23	1539
2					
3					

TAT Requested: Normal:  Rush:  Specify: \_\_\_\_\_ (Subject to Surcharge)

Fax Results:  Yes  No

Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4

Additional Remarks: \* Metals: B,Ca,Se,Fe,Mg,Mn,K,Na,Hg

For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

ET

Client: <u>GPCC</u>		SDG/AR/COC/Work Order: <u>624-832</u>	
Received By: <u>QG</u>		Date Received: <u>6/6/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other	
		<u>nla</u>	
Suspected Hazard Information		Yes	No
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		*If Not Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
		COC notation or radioactive stickers on containers equal client designation.	
		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/hr Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>	
		COC notation or hazard labels on containers equal client designation.	
		If D or E is yes, select Hazards below: PCB's   Flammable   Foreign Soil   RCRA   Asbestos   Beryllium   Other:	
Sample Receipt Criteria		Yes	No
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Samples requiring cold preservation within (0 ≤ deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials AS Date 6/7/23 Page 1 of 1

**List of current GEL Certifications as of 15 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**List of current GEL Certifications as of 14 June 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



13751 Lake City Way NE, Ste 108, Seattle, WA 98125 • USA • T:206-632-6206 • info@brooksapplied.com

June 14, 2023

Geosyntec Consultants – Kennesaw  
ATTN: Lauren Fitzgerald  
LAFitzgerald@Geosyntec.com

RE: Plant Branch AP-BCD

Dear Lauren Fitzgerald,

On June 2, 2023, Brooks Applied Labs (BAL) received three (3) groundwater samples. The samples were logged-in for the analyses of selenium speciation [Se(IV), Se(VI), SeCN, SeMet, MeSe(IV), SeSO<sub>3</sub><sup>2-</sup>, DMSeO, and the sum of unknown Se species] according to the chain-of-custody form. All samples were received and stored according to BAL SOPs and EPA methodology.

All samples were field filtered.

*Selenium Speciation Quantitation by IC-ICP-CRC-MS*

Selenium speciation was performed by ion chromatography inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Selenium species are first chromatographically separated on an ion exchange column and then quantified using inductively coupled plasma collision reaction cell mass spectrometry (ICP-CRC-MS). For more information on this determinative technique, please visit the *Interference Reduction Technology* section on our website.

“Unknown selenium species” is defined as the total concentration of all unknown selenium species observed by IC-ICP-MS. This can be identified in the report as [Unk Se Sp].

In instances where the native sample result and/or the associated duplicate (DUP) result were below the MDL the RPD was not calculated (**N/C**).

The results were not method blank corrected, as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

2306067-01 was used as the source sample in the original the original matrix spike/matrix spike duplicate (MS/MSD) pair analyzed at the lower (5x) dilution. The spike recoveries for selenite were less than the lower control limits, indicating matrix interference at the lower dilution. 2306067-01 was subsequently analyzed at a higher (50x) dilution and used as the source sample in the (MS/MSD) pair B231329-MS4/B231329-MSD4. All spike recoveries in B231329-MS4/B231329-MSD4 were acceptable at the higher dilution. Therefore, it was necessary to analyze and report results for the source sample (2306067-01) at the higher dilution. MDL/MRL values were adjusted accordingly.

All data was reported without further qualification and all other associated quality control sample results met the acceptance criteria.

BAL verifies that the reported results of all analyses for which the laboratory is accredited meet the requirements of the accrediting body, unless otherwise noted in the report narrative. For more information regarding accreditations please see the *Report Information* and *Batch Summary* pages. This report must be used in its entirety for interpretation of results.

Please feel free to contact us if you have any questions regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeremy Maute', written in a cursive style.

Jeremy Maute  
Senior Project Manager  
[Jeremy@brooksapplied.com](mailto:Jeremy@brooksapplied.com)



## Report Information

### General Disclaimers

Test results are based solely upon the sample submitted to Brooks Applied Labs in the condition it was received. This report shall not be reproduced or copied, except in full, without written approval of the laboratory. Brooks Applied Labs is not responsible for the consequences arising from the use of a partial report.

### Laboratory Accreditation

BAL maintains accreditation with various state and national agencies for select test methods. For a current list of BAL accreditations, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/>. The reported analyte/matrix/method combination shall be considered outside BAL's scopes of accreditation unless otherwise identified as ISO, TNI, or ISO,TNI in the tables. It is the responsibility of the client to verify whether a specific accreditation is required for the intended data use.

**ISO:** ISO/IEC 17025:2017 accredited test method. Issued by ANSI National Accreditation Board (ANAB), #ADE-1447.02

**TNI:** NELAP accredited test method. Issued by the State of Florida Department of Health, #E87982.

**ISO,TNI:** Test method is accredited under both the ISO/IEC 17025:2017 and NELAP accreditations referenced above.

### Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

### Common Abbreviations

<b>AR</b>	as received	<b>MS</b>	matrix spike
<b>BAL</b>	Brooks Applied Labs	<b>MSD</b>	matrix spike duplicate
<b>BLK</b>	method blank	<b>ND</b>	non-detect
<b>BS</b>	blank spike	<b>NR</b>	non-reportable
<b>CAL</b>	calibration standard	<b>N/C</b>	not calculated
<b>CCB</b>	continuing calibration blank	<b>PS</b>	post preparation spike
<b>CCV</b>	continuing calibration verification	<b>REC</b>	percent recovery
<b>COC</b>	chain of custody record	<b>RPD</b>	relative percent difference
<b>D</b>	dissolved fraction	<b>SCV</b>	secondary calibration verification
<b>DUP</b>	duplicate	<b>SOP</b>	standard operating procedure
<b>IBL</b>	instrument blank	<b>SRM</b>	reference material
<b>ICV</b>	initial calibration verification	<b>T</b>	total fraction
<b>MDL</b>	method detection limit	<b>TR</b>	total recoverable fraction
<b>MRL</b>	method reporting limit		

### Definition of Data Qualifiers

<b>E</b>	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
<b>H</b>	Holding time and/or preservation requirements not met. Please see narrative for explanation.
<b>J</b>	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
<b>J-1</b>	Estimated value. A full explanation is presented in the narrative.
<b>M</b>	Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
<b>N</b>	Spike recovery was not within acceptance criteria. Please see narrative for explanation.
<b>R</b>	Rejected, unusable value. A full explanation is presented in the narrative.
<b>U</b>	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
<b>X</b>	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.
<b>Z</b>	Holding time and/or preservation requirements not established for this method; however, BAL recommendations for holding time were not followed. Please see narrative for explanation.



## Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
IW-D-2	2306067-01	Ground Water	Sample	05/30/2023	06/02/2023
BRGWC-32S	2306067-02	Ground Water	Sample	05/30/2023	06/02/2023
PZ-69I	2306067-03	Ground Water	Sample	05/31/2023	06/02/2023

## Batch Summary

Analyte	Lab Matrix	Method	Accred.	Prepared	Analyzed	Batch	Sequence
DMS <sub>2</sub> SeO	Water	SOP BAL-4201		06/07/23	06/08/23	B231329	S230565
MeSe(IV)	Water	SOP BAL-4201		06/07/23	06/08/23	B231329	S230565
Se(IV)	Water	SOP BAL-4201	ISO,TNI	06/07/23	06/08/23	B231329	S230565
Se(VI)	Water	SOP BAL-4201	ISO,TNI	06/07/23	06/08/23	B231329	S230565
SeCN	Water	SOP BAL-4201	ISO	06/07/23	06/08/23	B231329	S230565
SeMet	Water	SOP BAL-4201	ISO	06/07/23	06/08/23	B231329	S230565
SeSO <sub>3</sub>	Water	SOP BAL-4201		06/07/23	06/08/23	B231329	S230565
Unk Se Sp	Water	SOP BAL-4201		06/07/23	06/08/23	B231329	S230565





## Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
<b>IW-D-2</b>										
2306067-01	DMS <sub>2</sub> O	Ground Water	D	≤ 0.100	U	0.100	0.250	µg/L	B231329	S230565
2306067-01	MeSe(IV)	Ground Water	D	≤ 0.100	U	0.100	0.250	µg/L	B231329	S230565
2306067-01	Se(IV)	Ground Water	D	≤ 0.200	U	0.200	0.750	µg/L	B231329	S230565
2306067-01	Se(VI)	Ground Water	D	≤ 0.100	U	0.100	0.550	µg/L	B231329	S230565
2306067-01	SeCN	Ground Water	D	≤ 0.100	U	0.100	0.500	µg/L	B231329	S230565
2306067-01	SeMet	Ground Water	D	≤ 0.100	U	0.100	0.250	µg/L	B231329	S230565
2306067-01	SeSO <sub>3</sub>	Ground Water	D	≤ 0.100	U	0.100	0.550	µg/L	B231329	S230565
2306067-01	Unk Se Sp	Ground Water	D	≤ 0.200	U	0.200	0.750	µg/L	B231329	S230565
<b>BRGWC-32S</b>										
2306067-02	DMS <sub>2</sub> O	Ground Water	D	≤ 0.010	U	0.010	0.025	µg/L	B231329	S230565
2306067-02	MeSe(IV)	Ground Water	D	≤ 0.010	U	0.010	0.025	µg/L	B231329	S230565
2306067-02	Se(IV)	Ground Water	D	≤ 0.020	U	0.020	0.075	µg/L	B231329	S230565
2306067-02	Se(VI)	Ground Water	D	239		0.010	0.055	µg/L	B231329	S230565
2306067-02	SeCN	Ground Water	D	≤ 0.010	U	0.010	0.050	µg/L	B231329	S230565
2306067-02	SeMet	Ground Water	D	≤ 0.010	U	0.010	0.025	µg/L	B231329	S230565
2306067-02	SeSO <sub>3</sub>	Ground Water	D	≤ 0.010	U	0.010	0.055	µg/L	B231329	S230565
2306067-02	Unk Se Sp	Ground Water	D	≤ 0.020	U	0.020	0.075	µg/L	B231329	S230565
<b>PZ-69I</b>										
2306067-03	DMS <sub>2</sub> O	Ground Water	D	0.014	J	0.010	0.025	µg/L	B231329	S230565
2306067-03	MeSe(IV)	Ground Water	D	≤ 0.010	U	0.010	0.025	µg/L	B231329	S230565
2306067-03	Se(IV)	Ground Water	D	0.052	J	0.020	0.075	µg/L	B231329	S230565
2306067-03	Se(VI)	Ground Water	D	172		0.010	0.055	µg/L	B231329	S230565
2306067-03	SeCN	Ground Water	D	≤ 0.010	U	0.010	0.050	µg/L	B231329	S230565
2306067-03	SeMet	Ground Water	D	≤ 0.010	U	0.010	0.025	µg/L	B231329	S230565
2306067-03	SeSO <sub>3</sub>	Ground Water	D	≤ 0.010	U	0.010	0.055	µg/L	B231329	S230565
2306067-03	Unk Se Sp	Ground Water	D	≤ 0.020	U	0.020	0.075	µg/L	B231329	S230565





## Accuracy & Precision Summary

**Batch:** B231329  
**Lab Matrix:** Water  
**Method:** SOP BAL-4201

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
<b>B231329-BS1</b>	<b>Blank Spike, (2307012)</b>						
	MeSe(IV)		5.095	6.178	µg/L	121% 75-125	
	Se(IV)		5.000	5.766	µg/L	115% 75-125	
	Se(VI)		5.000	5.728	µg/L	115% 75-125	
	SeCN		5.015	6.076	µg/L	121% 75-125	
	SeMet		4.982	5.279	µg/L	106% 75-125	
<b>B231329-DUP4</b>	<b>Duplicate, (2306067-01)</b>						
	DMSeO	ND		ND	µg/L		N/C 25
	MeSe(IV)	ND		ND	µg/L		N/C 25
	Se(IV)	ND		ND	µg/L		N/C 25
	Se(VI)	ND		ND	µg/L		N/C 25
	SeCN	ND		ND	µg/L		N/C 25
	SeMet	ND		ND	µg/L		N/C 25
	SeSO3	ND		ND	µg/L		N/C 25
Unk Se Sp	ND		ND	µg/L		N/C 25	
<b>B231329-MS4</b>	<b>Matrix Spike, (2306067-01)</b>						
	Se(IV)	ND	50.10	40.63	µg/L	81% 75-125	
	Se(VI)	ND	49.52	44.66	µg/L	90% 75-125	
	SeCN	ND	19.62	17.86	µg/L	91% 75-125	
	SeMet	ND	19.77	17.46	µg/L	88% 75-125	
<b>B231329-MSD4</b>	<b>Matrix Spike Duplicate, (2306067-01)</b>						
	Se(IV)	ND	50.10	42.13	µg/L	84% 75-125	4% 25
	Se(VI)	ND	49.52	50.05	µg/L	101% 75-125	11% 25
	SeCN	ND	19.62	19.62	µg/L	100% 75-125	9% 25
	SeMet	ND	19.77	18.62	µg/L	94% 75-125	6% 25



## Accuracy & Precision Summary

Batch: B231329  
 Lab Matrix: Water  
 Method: SOP BAL-4201

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
<b>B231329-DUP1</b>	<b>Duplicate, (2306104-03)</b>						
	DMS <sub>2</sub> O	ND		ND	µg/L		N/C 25
	MeSe(IV)	ND		ND	µg/L		N/C 25
	Se(IV)	0.882		0.846	µg/L		4% 25
	Se(VI)	65.08		63.44	µg/L		3% 25
	SeCN	ND		ND	µg/L		N/C 25
	SeMet	ND		ND	µg/L		N/C 25
	SeSO <sub>3</sub>	ND		ND	µg/L		N/C 25
	Unk Se Sp	ND		ND	µg/L		N/C 25
<b>B231329-MS1</b>	<b>Matrix Spike, (2306104-03)</b>						
	Se(IV)	0.882	50.10	50.16	µg/L	98% 75-125	
	Se(VI)	65.08	49.52	113.5	µg/L	98% 75-125	
	SeCN	ND	19.62	19.43	µg/L	99% 75-125	
	SeMet	ND	19.77	19.01	µg/L	96% 75-125	
<b>B231329-MSD1</b>	<b>Matrix Spike Duplicate, (2306104-03)</b>						
	Se(IV)	0.882	50.10	50.34	µg/L	99% 75-125	0.4% 25
	Se(VI)	65.08	49.52	116.2	µg/L	103% 75-125	2% 25
	SeCN	ND	19.62	19.98	µg/L	102% 75-125	3% 25
	SeMet	ND	19.77	19.32	µg/L	98% 75-125	2% 25
<b>B231329-DUP6</b>	<b>Duplicate, (2306141-24)</b>						
	DMS <sub>2</sub> O	ND		ND	µg/L		N/C 25
	MeSe(IV)	ND		ND	µg/L		N/C 25
	Se(IV)	0.287		0.276	µg/L		4% 25
	Se(VI)	1.756		1.778	µg/L		1% 25
	SeCN	ND		ND	µg/L		N/C 25
	SeMet	ND		ND	µg/L		N/C 25
	SeSO <sub>3</sub>	ND		ND	µg/L		N/C 25
	Unk Se Sp	ND		ND	µg/L		N/C 25
<b>B231329-MS6</b>	<b>Matrix Spike, (2306141-24)</b>						
	Se(IV)	0.287	10.02	10.86	µg/L	105% 75-125	
	Se(VI)	1.756	9.904	12.20	µg/L	105% 75-125	
	SeCN	ND	3.924	4.123	µg/L	105% 75-125	
	SeMet	ND	3.954	4.089	µg/L	103% 75-125	

Project ID: GST-KE2301  
PM: Amy Goodall



BAL Report 2306067  
Client PM: Lauren Fitzgerald  
Client Project: Plant Branch AP-BCD

## Accuracy & Precision Summary

Batch: B231329  
Lab Matrix: Water  
Method: SOP BAL-4201

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B231329-MSD6	Matrix Spike Duplicate, (2306141-24)						
	Se(IV)	0.287	10.02	10.76	µg/L	105% 75-125	0.9% 25
	Se(VI)	1.756	9.904	12.13	µg/L	105% 75-125	0.6% 25
	SeCN	ND	3.924	4.026	µg/L	103% 75-125	2% 25
	SeMet	ND	3.954	3.919	µg/L	99% 75-125	4% 25



## Method Blanks & Reporting Limits

**Batch:** B231329  
**Matrix:** Water  
**Method:** SOP BAL-4201  
**Analyte:** DMSeO

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.002</b>
<b>Limit:</b>	<b>0.005</b>		<b>MRL: 0.005</b>

**Analyte:** MeSe(IV)

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.002</b>
<b>Limit:</b>	<b>0.005</b>		<b>MRL: 0.005</b>

**Analyte:** Se(IV)

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.001	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.015</b>		<b>MRL: 0.015</b>



## Method Blanks & Reporting Limits

**Analyte:** Se(VI)

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.002</b>
<b>Limit:</b>	<b>0.011</b>		<b>MRL: 0.011</b>

**Analyte:** SeCN

Sample	Result	Units	
B231329-BLK1	0.001	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.0009	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.002</b>
<b>Limit:</b>	<b>0.010</b>		<b>MRL: 0.010</b>

**Analyte:** SeMet

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.002</b>
<b>Limit:</b>	<b>0.005</b>		<b>MRL: 0.005</b>

**Analyte:** SeSO3

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.002</b>
<b>Limit:</b>	<b>0.011</b>		<b>MRL: 0.011</b>



## Method Blanks & Reporting Limits

Analyte: Unk Se Sp

Sample	Result	Units	
B231329-BLK1	0.00	µg/L	
B231329-BLK2	0.00	µg/L	
B231329-BLK3	0.00	µg/L	
B231329-BLK4	0.00	µg/L	
<b>Average:</b>	<b>0.000</b>		<b>MDL: 0.004</b>
<b>Limit:</b>	<b>0.015</b>		<b>MRL: 0.015</b>

Project ID: GST-KE2301  
PM: Amy Goodall



BAL Report 2306067  
Client PM: Lauren Fitzgerald  
Client Project: Plant Branch AP-BCD

## Sample Containers

Lab ID: 2306067-01  
Sample: IW-D-2

Report Matrix: Ground Water  
Sample Type: Sample

Collected: 05/30/2023  
Received: 06/02/2023

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Cent Tube	15 mL	na	none	na	na	Cooler - 2306067
B	XTRA_VOL	na	na	none	na	na	Cooler - 2306067

Lab ID: 2306067-02  
Sample: BRGWC-32S

Report Matrix: Ground Water  
Sample Type: Sample

Collected: 05/30/2023  
Received: 06/02/2023

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Cent Tube	15 mL	na	none	na	na	Cooler - 2306067
B	XTRA_VOL	na	na	none	na	na	Cooler - 2306067

Lab ID: 2306067-03  
Sample: PZ-69I

Report Matrix: Ground Water  
Sample Type: Sample

Collected: 05/31/2023  
Received: 06/02/2023

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Cent Tube	15 mL	na	none	na	na	Cooler - 2306067
B	XTRA_VOL	na	na	none	na	na	Cooler - 2306067

## Shipping Containers

### Cooler - 2306067

Received: June 2, 2023 9:24  
Tracking No: 3990 8384 0955 via FedEx  
Coolant Type: Dry Ice  
Temperature: -32.0 °C

Description: Cooler  
Damaged in transit? No  
Returned to client? No  
Comments: R-IR-1

Custody seals present? Yes  
Custody seals intact? Yes  
COC present? Yes



# Chain-of-Custody Form

Ship samples to:  
**13751 Lake City Way NE, Suite 108**  
**Seattle, WA 98125**

Received by: *Pauline* For BAL use only Date: 6/2/23

Work Order ID: \_\_\_\_\_ Time: 0921

Project ID: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Email Receipt Confirmation? No

BAL PM: \_\_\_\_\_

Client: Goosyatec PO Number: \_\_\_\_\_  
 Contact: Lauren Fitzgerald Phone: \_\_\_\_\_  
 Client Project ID: Plant Branch AP-BCD Email: \_\_\_\_\_  
 Samples Collected By: A. Schmittker, J. Borris Ford

Requested TAT (business days)	Collection		Client Sample Info				BAL Analyses Required						Comments			
	Date	Time	Matrix Type	Number of Containers	Field Filtered?	Preservation Type	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As Species (specify)	Se Species (specify)	Filtration		Other (specify here)	Other (specify here)	
<input type="checkbox"/> 20 (standard) <input type="checkbox"/> 15* <input type="checkbox"/> 10* <input type="checkbox"/> 5* <input type="checkbox"/> Other _____ <small>*Surcharges may apply to expedited TATs</small>	Sample ID															
1	IW-D-2	5/30/23	1625	Groundwater	1	Yes										Specify Here
2	BRGWC-32S	05/30/23	1435	Groundwater	1	Yes										
3	PZ-69I	05/31/23	1046	Groundwater	1	Yes										
4																
5																
6																
7																
8																
9																
10																
Trip Blank (specify)																
Relinquished By: <u><i>Pauline</i></u> (ACC)		Date: <u>5/31/23</u>		Time: <u>1620</u>		Relinquished By: <u><i>Cl Paul</i></u> (ACC)		Date: <u>6/1/23</u>		Time: <u>1630</u>						
Received By: <u><i>Cl Paul</i></u> (ACC)		Date: <u>5/31/23</u>		Time: <u>1620</u>		Total Number of Packages: <u>1</u>										

**Print**



### Sample Receipt Checklist:

Container Type: Container 1 of 1

- Cooler
- Cardboard box
- Styrofoam cooler
- Other (Specify):

- Custody Seal Present?
- Custody Seal Intact?  Y  N
- Chain of Custody Present?

#### Coolant and Temperature

##### Coolant Type:

- None  Blue Ice
- Ice:  Dry Ice

IR# R-12-1

Measured Temp<sup>1</sup>: 2 -32°C

Corrected Temp: 2 -32°C

Temp Blank<sup>2</sup>: \_\_\_\_\_ °C

- 1) n of samples >3, observe three measurements, record average
- 2) Record temp blank as a corrected temp

##### Coolant Note:

##### Bottle Type:

- Client Provided
- Class :
- Size / Type:
- Lot:
- Preservation:
- Preservative Lot:
- Class :
- Size / Type:
- Lot:
- Preservation:
- Preservative Lot:
- Class :
- Size / Type:
- Lot:
- Preservation:
- Preservative Lot:

**DO NOT USE THIS TAG.**

ORIGIN ID:GVLA (770) 594-5998  
ATLANTIC COAST CONSULTING

1150 NORTHMEADOW PKWY  
UNIT 100  
ROSWELL, GA 30076  
UNITED STATES US

SHIP DATE: 01JUN23  
ACTWGT: 29.60 LB  
CAD: 6994204/SSFE2421  
DIMS: 18x12x14 IN  
DRY ICE: 9.80 KG  
BILL CREDIT CARD

Part # 156291235494081990P 12/23

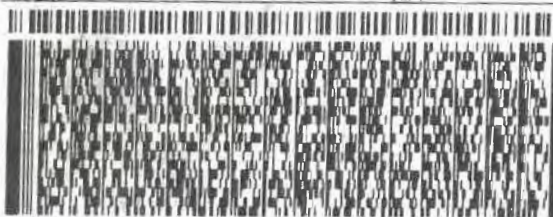
TO **BEN WOZNAK**

**13751 LAKE CITY WAY NE  
STE 108  
SEATTLE WA 98125**

(999) 999-9999  
TNU:  
PO:

REF:

DEPT:



**FedEx  
Express**



AN L0504820282R

**FRI - 02 JUN 10:30A  
PRIORITY OVERNIGHT**

TRK# 3990 8384 0955  
0201

**XW UQEA**

**ICE  
98125**

**WA-US PAE**



**All information accurate**

Initial/date: PAW 6/2/23

# APPENDIX C

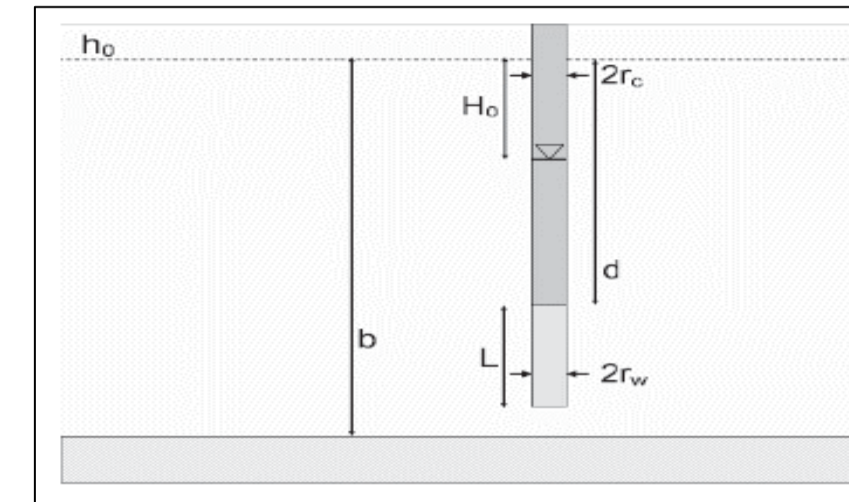
## Slug Test Data Plots

**Table 3**  
**Summary of Estimated Horizontal Hydraulic Conductivity Values**  
**Plant Branch AP-BCD, Putnam County, Georgia**

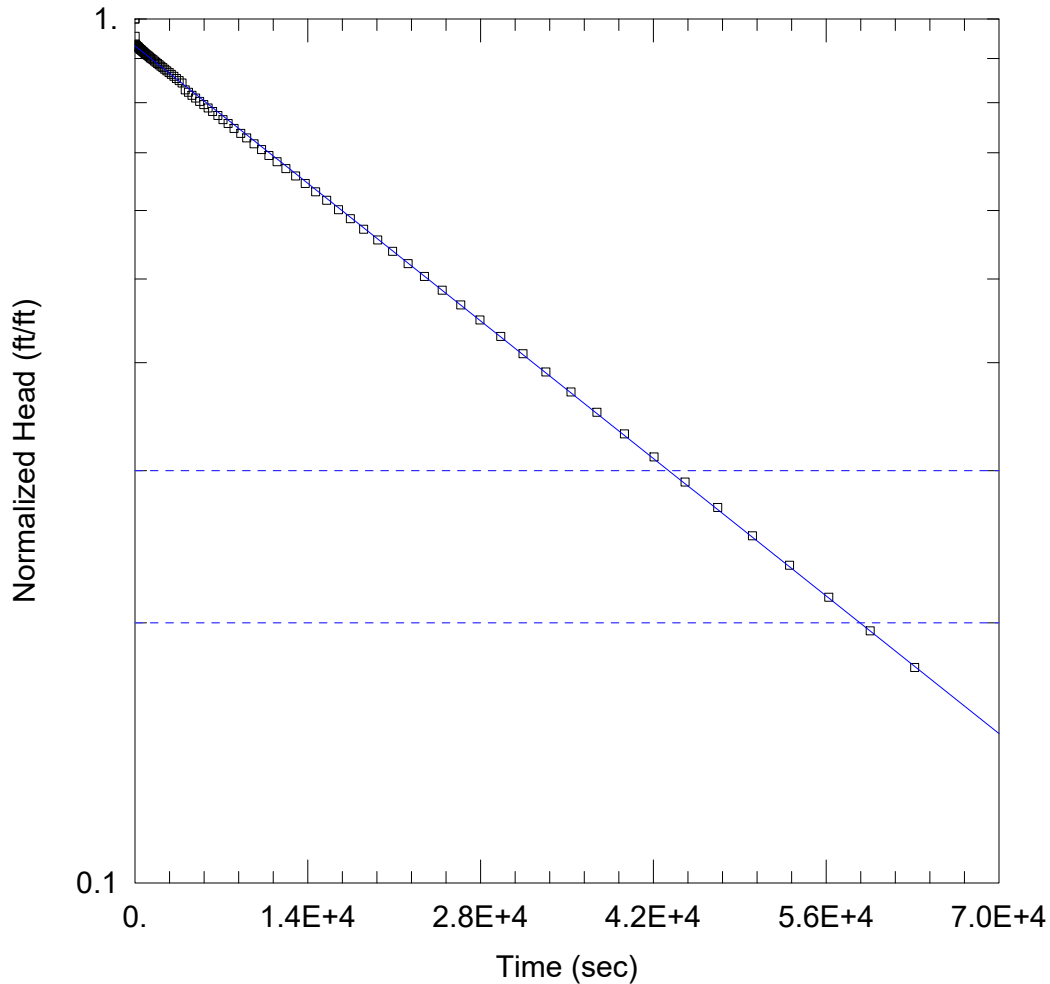
Well ID/Test No.	Screen Zone Material	Slug Test Type	Well Information						AQTESOLV Input Parameters												Horizontal Hydraulic Conductivity (Kh)					
			Depth to Sensor [ft bTOC]	Static DTW [ft bTOC]	DTW after Pressure Release [ft bTOC]	Top Screen Depth [ft TOC]	Bottom Screen Depth [ft bTOC]	Total Depth [ft bTOC]	Ho [ft]	H [ft]	b [ft]	Kv/Kh	d [ft]	L [ft]	T [ft]	r(c) [ft]	r(eq) [ft]	r(p) [ft]	r(w) [ft]	r(sk) [ft]	Bouwer-Rice Kh [ft/day]	KGS or Hvorslev Kh [ft/day]	Geomean Kh [ft/day]	Bouwer-Rice Kh [cm/sec]	KGS or Hvorslev Kh [cm/sec]	Geomean Kh [cm/sec]
PZ-68D Test 1	Bedrock	Pumping	82.30	42.18	60.06	74.00	84.00	84.30	17.88	42.12	42.12	0.1	31.82	10.0	36.82	0.083	0.03	0	0.25	0.25	0.003	0.003	0.003	1.1E-06	1.2E-06	1.1E-06
PZ-69I Test 1	Saprolite/PWR	Pneumatic	37.30	23.01	31.82	29.00	39.00	39.30	8.81	16.29	16.29	0.1	5.99	10.0	10.99	0.083	0.03	0	0.25	0.25	2.178	2.637	2.031	7.7E-04	9.3E-04	7.2E-04
PZ-69I Test 2		Pneumatic	37.30	23.01	33.34	29.00	39.00	39.30	10.33	16.29	16.29	0.1	5.99	10.0	10.99	0.083	0.03	0	0.25	0.25	1.667	2.073		5.9E-04	7.3E-04	
PZ-69I Test 3		Pneumatic	37.30	23.01	32.10	29.00	39.00	39.30	9.09	16.29	16.29	0.1	5.99	10.0	10.99	0.083	0.03	0	0.25	0.25	1.756	2.011		6.2E-04	7.1E-04	

Notes:

- Ho** Observed initial displacement (change in water level from static)
- H** Static water column height
- b** Saturated thickness of aquifer. If bottom of aquifer is unknown set b=bottom of well.
- Kv/Kh** Ratio of vertical to horizontal hydraulic conductivity
- d** Depth to top of well screen - this is the length from the water level (or top confining unit) to the top of the screen.
- L** Length of well screen
- T** Transducer Depth below the water table
- r(c)** Inside radius of well casing
- r(eq)** Radius of downhole equipment
- r(w)** Radius of well open or perforated interval
- r(sk)** Outside radius of well skin disturbed zone enveloping filter pack
- bTOC** Below Top Of Casing
- DTW** Depth To Water



1. For tests in which pumping was performed in lieu of applying pressurized gas, depth to water after pressure release refers to the depth after pumping is stopped.



PZ-68 TEST1

Data Set: N:\...\PZ-68 Test 1 BR.aqt  
Date: 10/28/22

Time: 13:57:54

PROJECT INFORMATION

Company: Geosyntec Consultants  
Client: Georgia Power  
Project: GW8862  
Location: Plant Branch  
Test Well: PZ-68  
Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 42.12 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-68 Test 1)

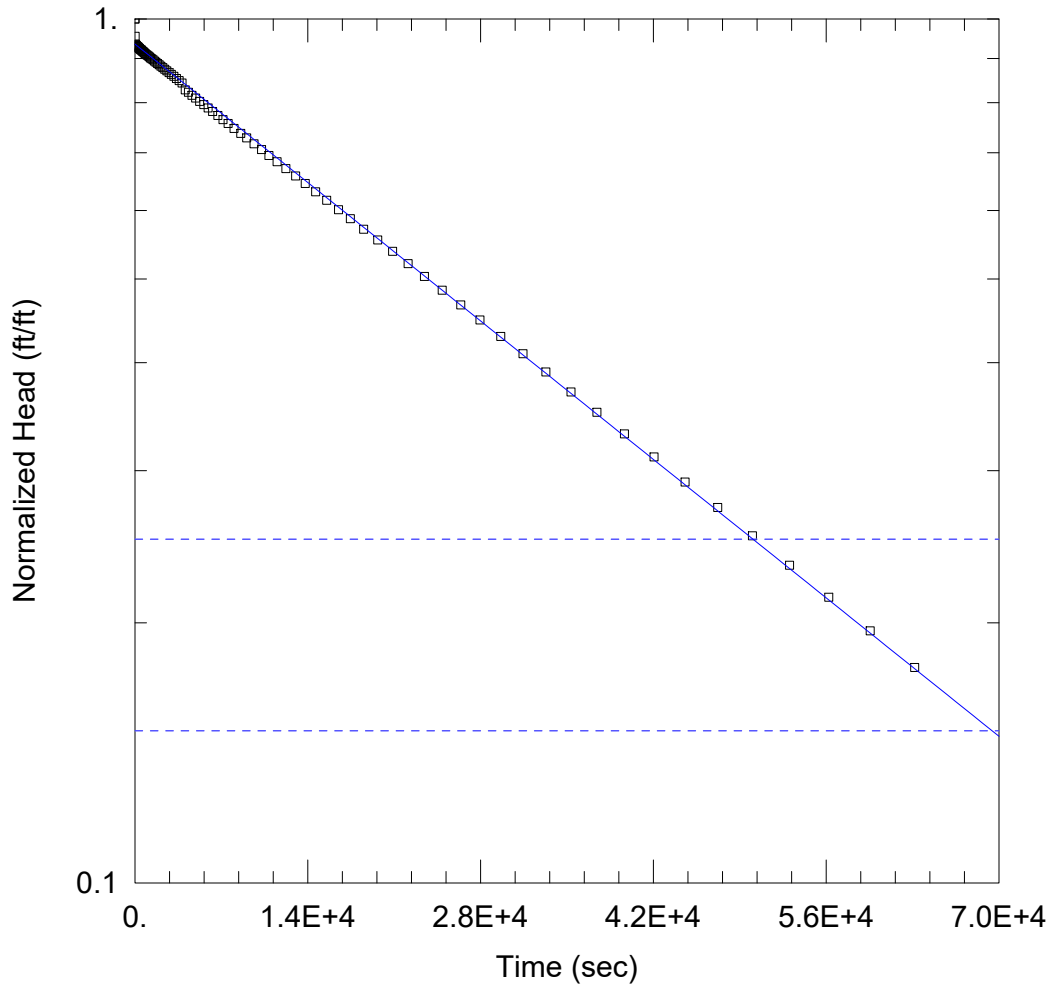
Initial Displacement: 17.88 ft  
Total Well Penetration Depth: 41.82 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 42.12 ft  
Screen Length: 10. ft  
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
K = 0.00303 ft/day

Solution Method: Bower-Rice  
y0 = 16.64 ft



PZ-68 TEST1

Data Set: N:\...\PZ-68 Test 1 HS.aqt  
Date: 10/28/22

Time: 13:58:44

PROJECT INFORMATION

Company: Geosyntec Consultants  
Client: Georgia Power  
Project: GW8862  
Location: Plant Branch  
Test Well: PZ-68  
Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 42.12 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-68 Test 1)

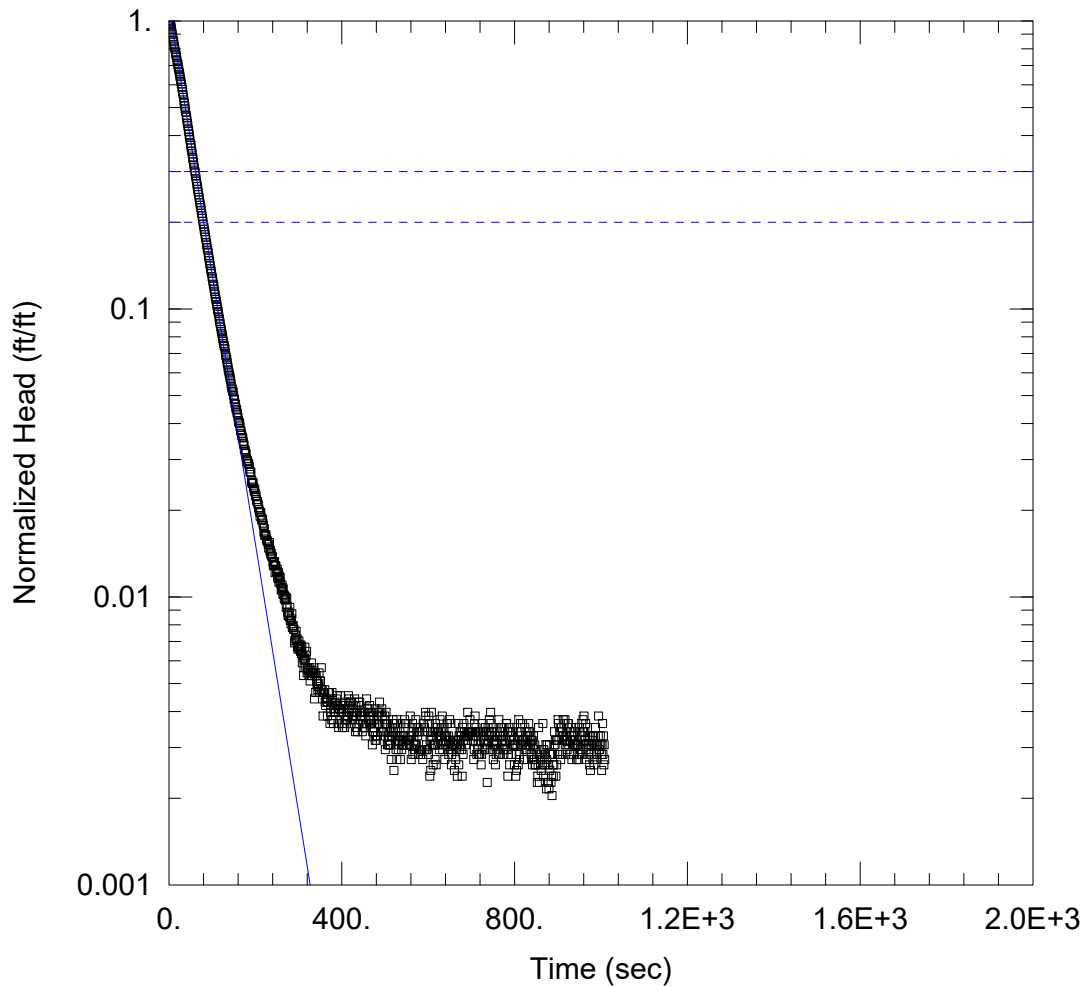
Initial Displacement: 17.88 ft  
Total Well Penetration Depth: 41.82 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 42.12 ft  
Screen Length: 10. ft  
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
K = 0.0033 ft/day

Solution Method: Hvorslev  
y0 = 16.72 ft



PZ-69 TEST 1

Data Set: N:\...\PZ-69 Test 1 BR.aqt  
 Date: 10/28/22

Time: 14:09:34

PROJECT INFORMATION

Company: Geosyntec Consultants  
 Client: Georgia Power  
 Project: GW8862  
 Location: Plant Branch  
 Test Well: PZ-69  
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 16.29 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-69 Test 1)

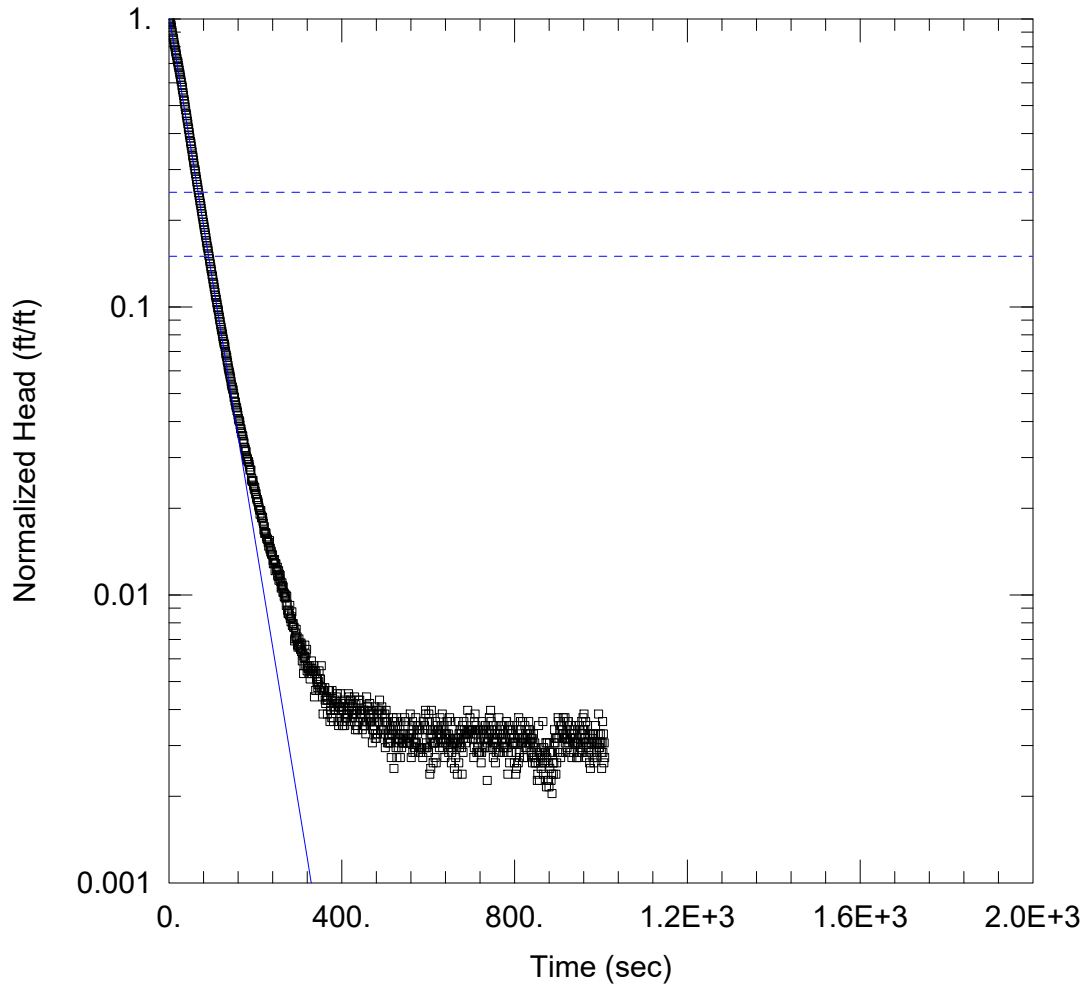
Initial Displacement: 8.81 ft  
 Total Well Penetration Depth: 15.99 ft  
 Casing Radius: 0.083 ft

Static Water Column Height: 16.29 ft  
 Screen Length: 10. ft  
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
 K = 2.178 ft/day

Solution Method: Bowser-Rice  
 y0 = 9.924 ft



PZ-69 TEST 1

Data Set: N:\...\PZ-69 Test 1 HS.aqt  
 Date: 10/28/22

Time: 14:10:15

PROJECT INFORMATION

Company: Geosyntec Consultants  
 Client: Georgia Power  
 Project: GW8862  
 Location: Plant Branch  
 Test Well: PZ-69  
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 16.29 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-69 Test 1)

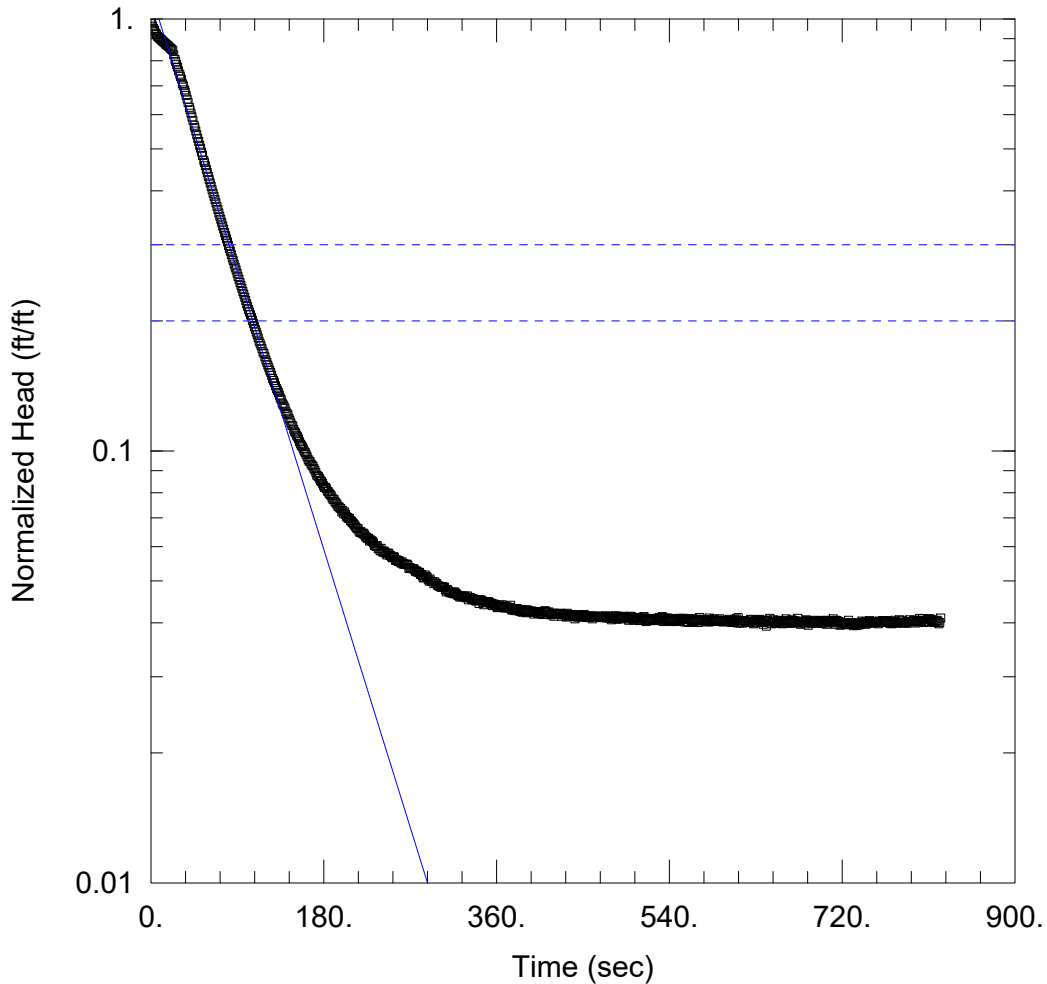
Initial Displacement: 8.81 ft  
 Total Well Penetration Depth: 15.99 ft  
 Casing Radius: 0.083 ft

Static Water Column Height: 16.29 ft  
 Screen Length: 10. ft  
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
 K = 2.637 ft/day

Solution Method: Hvorslev  
 y0 = 9.093 ft



PZ-69 TEST 2

Data Set: N:\...\PZ--69 Test 2 BR.aqt  
 Date: 10/28/22

Time: 15:25:29

PROJECT INFORMATION

Company: Geosyntec Consultants  
 Client: Georgia Power  
 Project: GW8862  
 Location: Plant Branch  
 Test Well: PZ-69  
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 16.29 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-69 Test 2)

Initial Displacement: 10.33 ft  
 Total Well Penetration Depth: 15.99 ft  
 Casing Radius: 0.083 ft

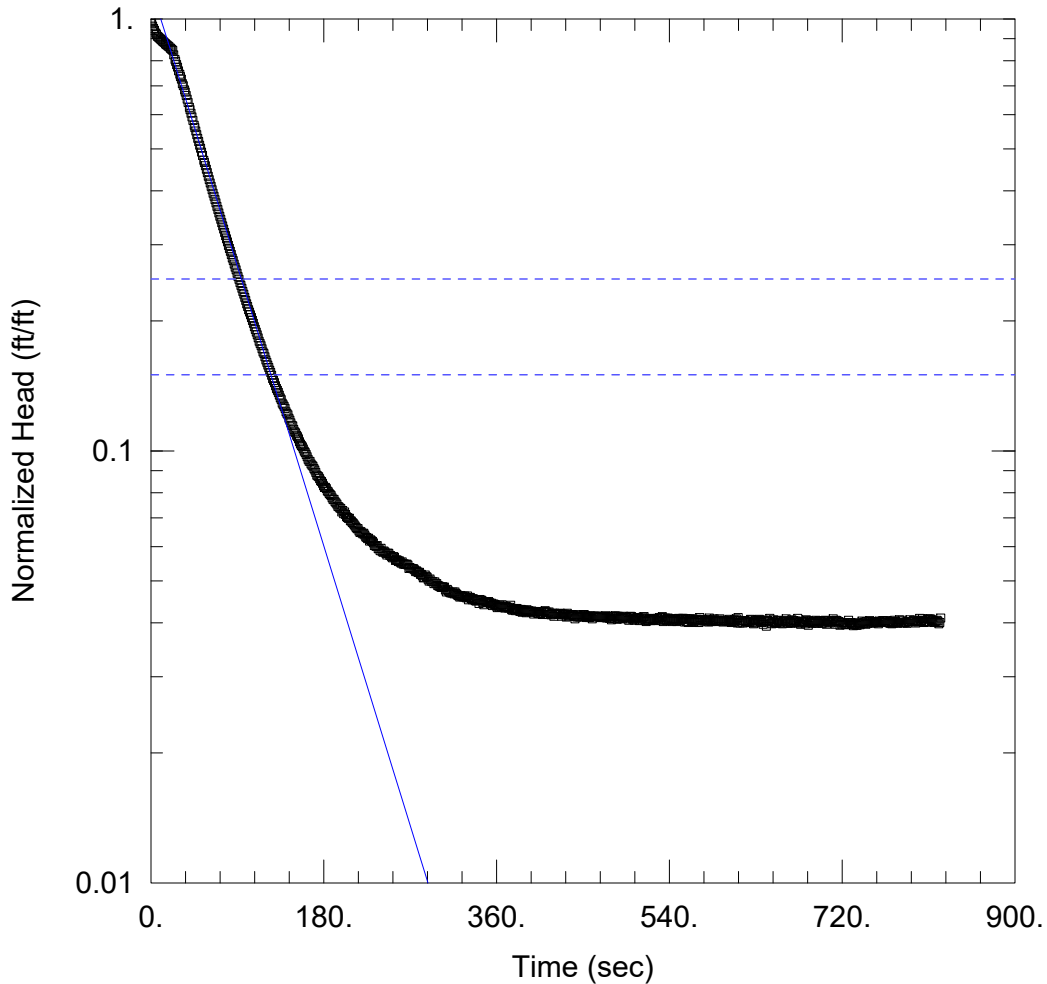
Static Water Column Height: 16.29 ft  
 Screen Length: 10. ft  
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
 K = 1.667 ft/day

Solution Method: Bouwer-Rice  
 y0 = 11.82 ft





PZ-69 TEST 2

Data Set: N:\...\PZ--69 Test 2 HS.aqt  
 Date: 10/28/22

Time: 15:26:05

PROJECT INFORMATION

Company: Geosyntec Consultants  
 Client: Georgia Power  
 Project: GW8862  
 Location: Plant Branch  
 Test Well: PZ-69  
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 16.29 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-69 Test 2)

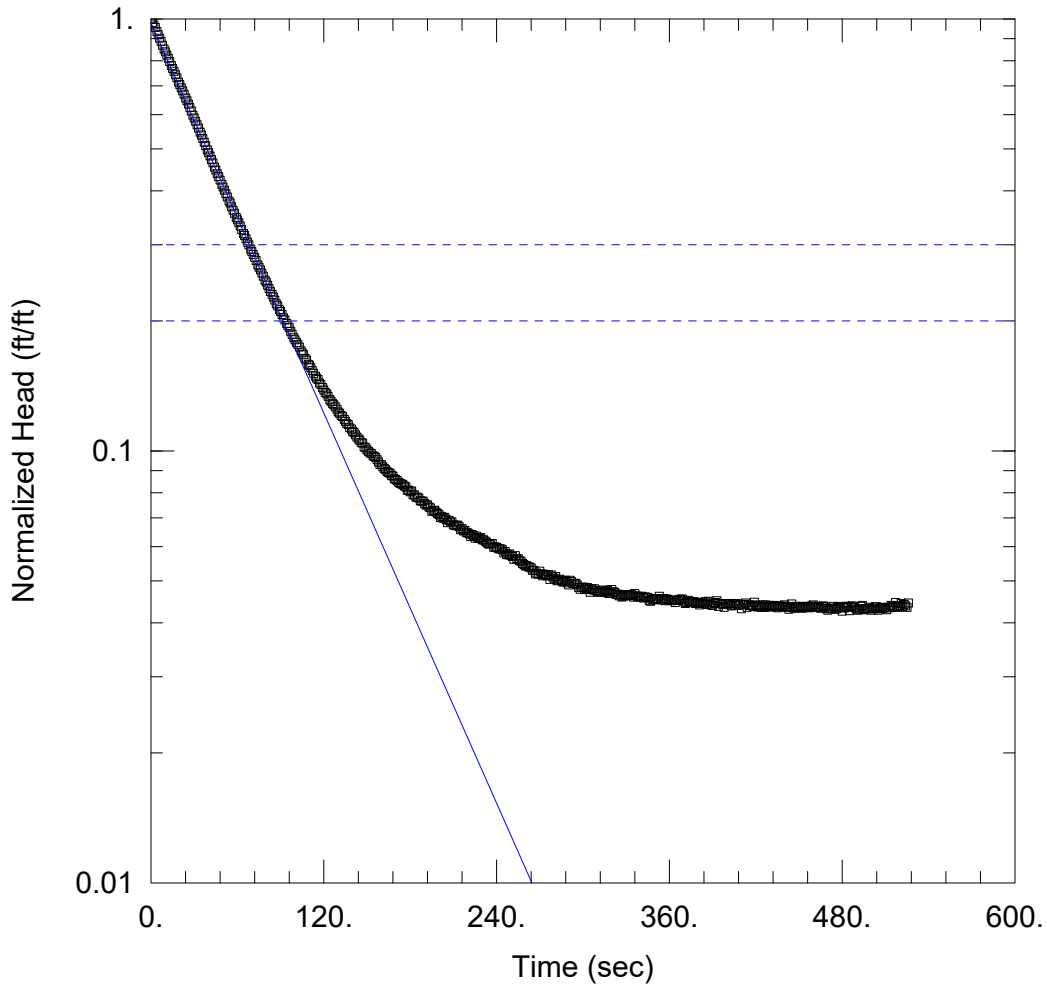
Initial Displacement: 10.33 ft  
 Total Well Penetration Depth: 15.99 ft  
 Casing Radius: 0.083 ft

Static Water Column Height: 16.29 ft  
 Screen Length: 10. ft  
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
 K = 2.073 ft/day

Solution Method: Hvorslev  
 y0 = 12.26 ft



PZ-69 TEST 3

Data Set: N:\...\PZ-69 Test 3 BR.aqt  
 Date: 10/28/22

Time: 15:29:59

PROJECT INFORMATION

Company: Geosyntec Consultants  
 Client: Georgia Power  
 Project: GW8862  
 Location: Plant Branch  
 Test Well: PZ-69  
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 16.29 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-69 Test 3)

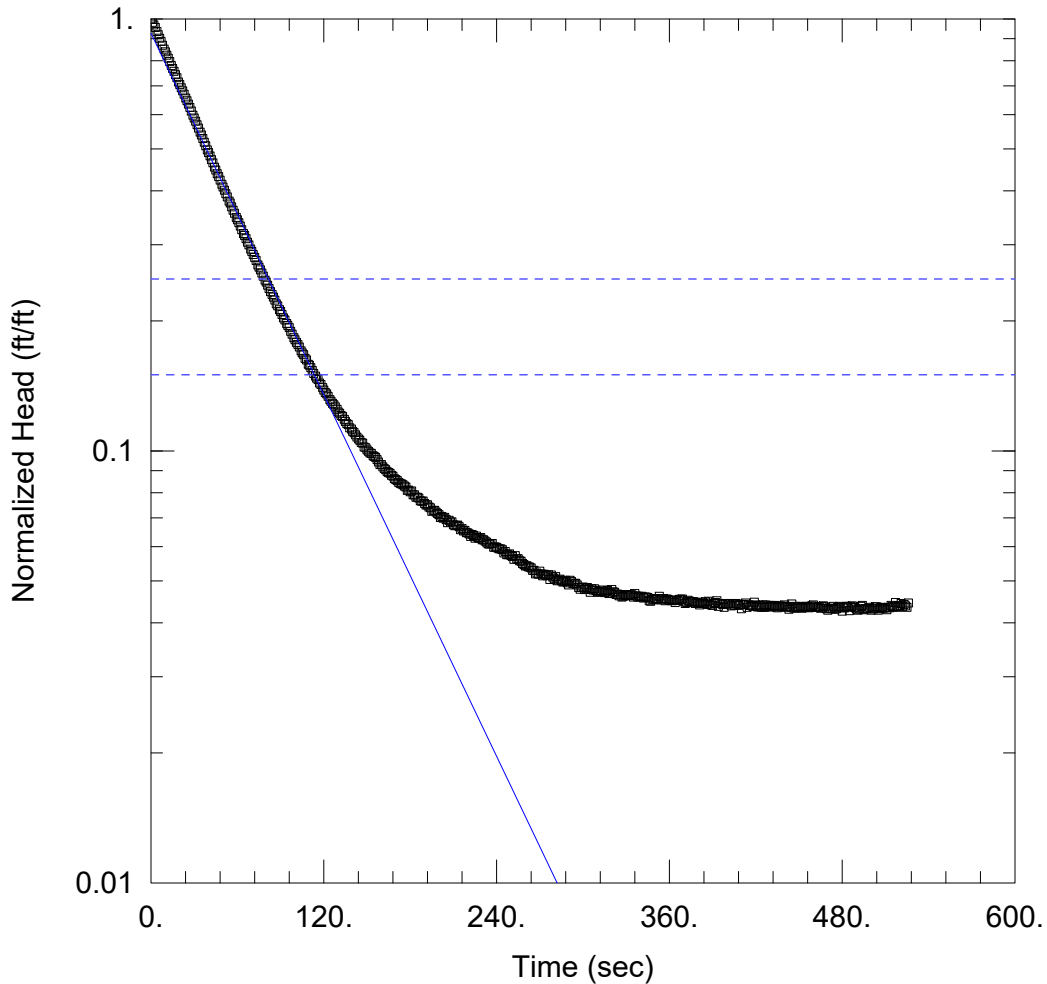
Initial Displacement: 9.09 ft  
 Total Well Penetration Depth: 15.99 ft  
 Casing Radius: 0.083 ft

Static Water Column Height: 16.29 ft  
 Screen Length: 10. ft  
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
 K = 1.756 ft/day

Solution Method: Bouwer-Rice  
 y0 = 8.905 ft



PZ-69 TEST 3

Data Set: N:\...\PZ-69 Test 3 HS.aqt  
 Date: 10/28/22

Time: 15:30:27

PROJECT INFORMATION

Company: Geosyntec Consultants  
 Client: Georgia Power  
 Project: GW8862  
 Location: Plant Branch  
 Test Well: PZ-69  
 Test Date: 10/24/2022

AQUIFER DATA

Saturated Thickness: 16.29 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (PZ-69 Test 3)

Initial Displacement: 9.09 ft  
 Total Well Penetration Depth: 15.99 ft  
 Casing Radius: 0.083 ft

Static Water Column Height: 16.29 ft  
 Screen Length: 10. ft  
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined  
 K = 2.011 ft/day

Solution Method: Hvorslev  
 y0 = 8.422 ft