



**REPORT**

# 2021 Semi-Annual Groundwater Monitoring and Corrective Action Report

*Georgia Power Company - Plant Branch  
Ash Pond BCD*

Submitted to:



**Georgia Power Company**

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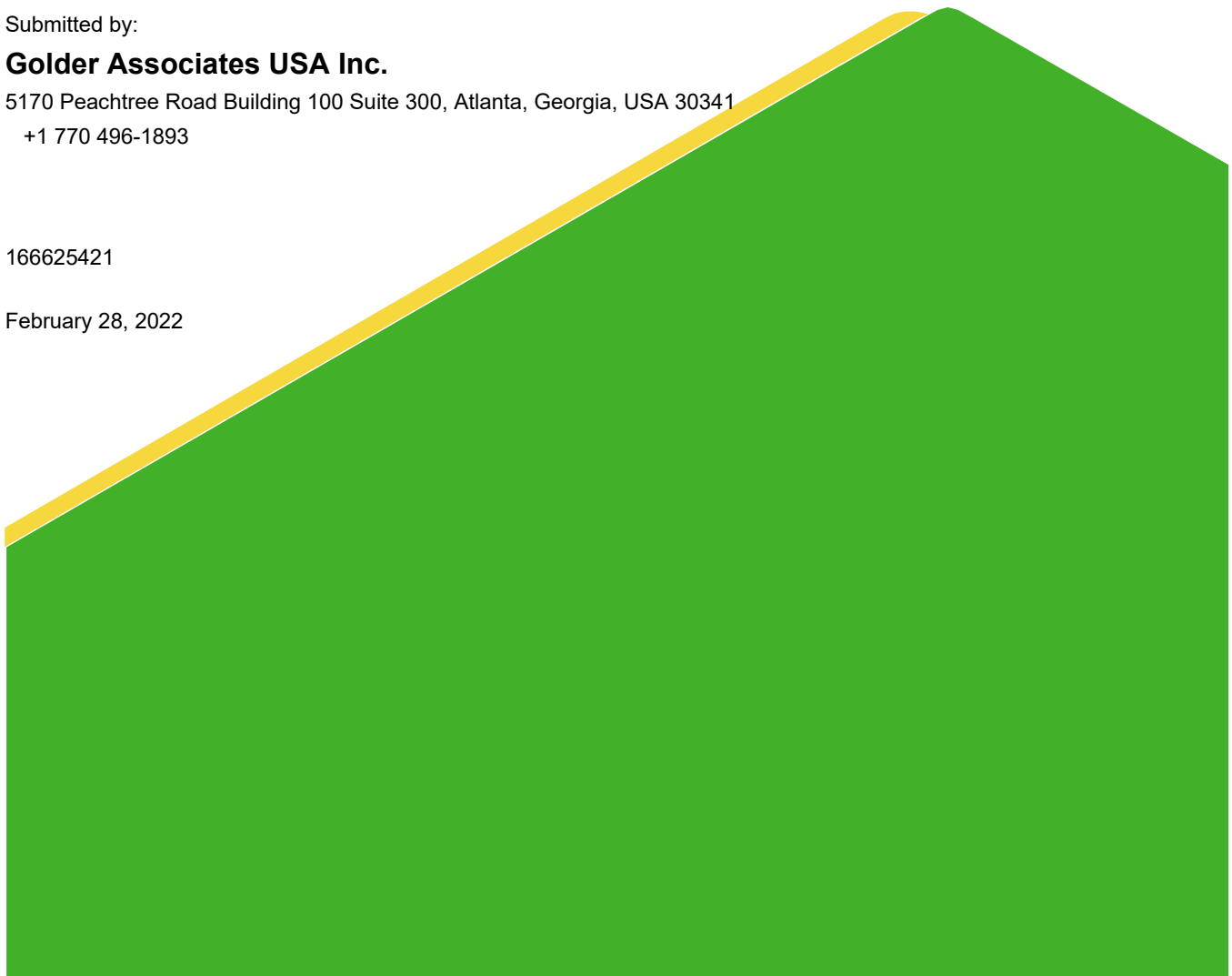
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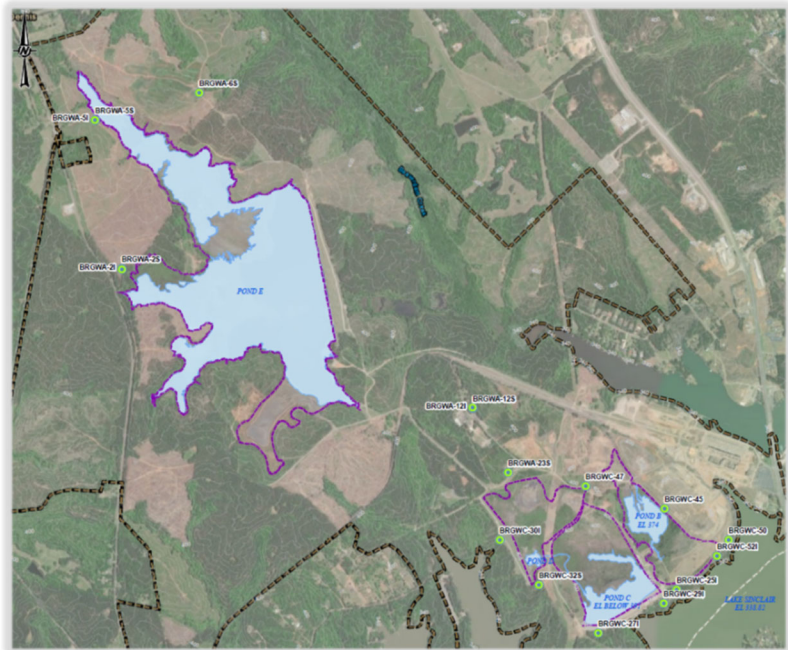


## Summary

This 2021 Semi-Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant Branch Ash Ponds B, C, and D (AP-BCD), Milledgeville, Putnam County, Georgia (GA) report provides the status of groundwater monitoring and corrective program July 2021 through December 2021. Groundwater monitoring and reporting for AP-BCD is performed by Golder Associates USA Inc. (Golder) in accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residual (CCR) Rule published in the Code of Federal Regulations (CFR) Title 40 Part 257 (40 CFR Part 257, Subpart D) dated April 17, 2015 and revised July 2018, 40 CFR § 257.90 through § 257.98. This summary was prepared by Golder on behalf of Georgia Power to meet the requirements listed in Part A, Section 6<sup>1</sup> of the US EPA CCR rule [40 CFR 257 Subpart D]. As required in 40 CFR § 257.90(e), this Semi-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) on-site at Plant Branch is reported separately.

Plant Branch formerly operated as a coal-fired power plant since the 1960s until its retirement in 2015; Plant Branch is no longer active and is decommissioned. Located approximately 8 miles north of Milledgeville in Putnam County (1100 Milledgeville Road, Milledgeville, GA 31024), the property occupies approximately 3,200 acres and is bounded on the south and east by Lake Sinclair.

Groundwater at the Site is monitored using a comprehensive well network system that meets federal and state monitoring requirements. Routine sampling and reporting for AP-BCD began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater quality, an assessment monitoring program and assessment of corrective measures were established on November 13, 2019, and July 9, 2020, respectively. During the 2021 semi-annual reporting period, the Site remained in assessment monitoring as corrective measures are evaluated.



Plant Branch

<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 elevation measurements were recorded at the site monitoring wells and piezometers prior to each sampling 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.

There was no change to the AP-BCD certified detection monitoring network for this semi-annual reporting period. One groundwater sampling event for AP-BCD was conducted in September 2021. Groundwater samples were collected and analyzed for Appendix III<sup>2</sup> and Appendix IV<sup>3</sup> required monitoring parameters from each of the detection and assessment monitoring wells.

Analytical data from the September 2021 monitoring event has been statistically analyzed in accordance with the Site's certified statistical analysis method. Statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents above the statistical limits and statistically significant levels (SSLs) of Appendix IV constituents above the groundwater protection standards as summarized below.

Appendix III Constituent	September 2021
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-45 and BRGWC-50
Fluoride	BRGWC-50
pH	BRGWC-29I and BRGWC-50
Sulfate	BRGWC-25I, BRGWC-27I, BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, BRGWC-52I
Total Dissolved Solids	BRGWC-29I, BRGWC-30I, BRGWC-32S, BRGWC-47, BRGWC-50, BRGWC-52I
Appendix IV Constituent	September 2021
Cadmium	BRGWC-50
Cobalt	BRGWC-50 and PZ-51I

Based on review of the Appendix III and Appendix IV results noted above, the Site will remain in Assessment Monitoring. Georgia Power will continue routine groundwater monitoring and evaluation of corrective action alternatives at the Site. Reports will be posted to the website and provided to GA EPD semi-annually.

<sup>2</sup> Appendix III: boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids

<sup>3</sup> Appendix IV: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, combined radium (226 + 228), selenium, and thallium.

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## Certification Statement

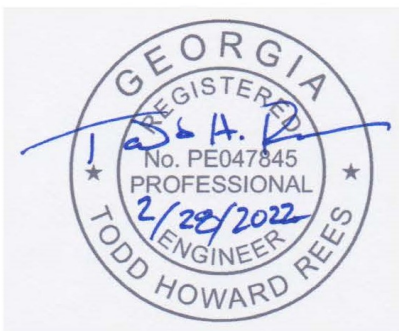
This 2021 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company Plant Branch Ash Pond BCD (AP-BCD) has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4.10(6)(a-c) by a qualified groundwater scientist with Golder Associates USA Inc.

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## 1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c), this *2021 Semi-Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power) Plant Branch Ash Ponds, B, C, and D, together referred to as a multi-unit AP-BCD. To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257.90 through 257.91 and 257.93 through 257.94. For ease of reference, The US EPA CCR rules are cited within this report. Plant Branch ceased producing electricity prior to April 2015, and therefore, Ash Ponds B, C, and D are not subject to the USEPA CCR Rule. This report documents the activities completed to establish the groundwater monitoring program in accordance with GA EPD Rule 391-3-4-.10(6)(a).

This report documents the activities completed at Branch AP-BCD between July 2021 and December 2021. Activities completed at Branch AP-E are reported under separate cover.

### 1.1 Site Description and Background

Plant Branch is located in Putnam County, GA, approximately 8 miles north of Milledgeville. The property occupies approximately 3,200 acres and is bounded on the south and east by Lake Sinclair, which is an approximate 15,330-acre hydroelectric reservoir that was created in 1953 by the impoundment of the Oconee River. A Site location map is included as Figure 1.

Plant Branch formerly operated as a coal-fired power plant between the 1960s until its retirement in 2015. Plant Branch is no longer active and is decommissioned. During its operation, five ash ponds were used for management of the CCR on the plant property. These ponds are identified as Ponds A, B, C, D, and E. Ash Pond A, the first ash pond constructed at the Site, 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 Ash Pond E. Ponds B, C, D, and E are inactive, and will be closed by removal and relocation of the stored CCR material to a proposed fully lined landfill located on the plant property. This report documents the groundwater monitoring program at the multi-unit AP-BCD. As noted above, activities completed at Branch AP-E are reported under separate cover.

Plant Branch ceased producing electricity prior to April 2015. Therefore, AP-BCD is not subject to the Federal CCR Rule. A CCR Unit Solid Waste Handling Permit application for AP-BCD was submitted to GA EPD in November 2018 and is under review.

### 1.2 Site Geology and Hydrogeologic Setting

The following section includes a general description of regional geologic and hydrogeologic characteristics of formations that occur beneath the Site. Information presented in this section is based on published literature, discussion with local geologic experts, and experience working in this geologic terrain, as described in the November 2020 *Hydrogeologic Assessment Report, Revision 1* (Geosyntec, 2020).

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. Overall, 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 forming a dendritic drainage pattern. These rocks are deeply weathered due to the humid

climate and 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 feldspathic 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.

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 the borings is variable, ranging from approximately 11 feet to as much as 74 feet. Saprolitic soils and/or saprolitic rock vary in thickness across the Site but are generally encountered at or near ground surface. Saprolitic rock is also considered to be 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 soils, saprolite, and transitionally weathered rock, is collectively referred to as overburden.

### 1.3 Groundwater Monitoring Well Network

Pursuant to § 257.91 of the CCR rule and 391-3-4-.10(6), a groundwater monitoring system was installed within the uppermost aquifer at AP-BCD. Wells were placed in upgradient and downgradient locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps.

Table 1, Summary of Monitoring Well, Assessment Well and Piezometer Construction, lists the upgradient and downgradient wells and includes the pertinent construction details for the AP-BCD monitoring well network and piezometers at Plant Branch. For reference, the AP-E well network is also included in Table 1. In April 2020, the five AP-E upgradient background monitoring wells were added to the AP-BCD groundwater monitoring well network (BRGWA-2S, BRGWA-2I, BRGWA-5S, BRGWA-5I, and BRGWA-6S). This was done to address spatial variability in the upgradient groundwater data set for a more certain statistical data evaluation.

Based on the Site hydrogeology, the monitoring system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock as a single inter-connected aquifer system. Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates transitionally weathered rock (transition zone), and “D” indicates bedrock.

## 2.0 GROUNDWATER MONITORING ACTIVITIES

The following sections describe monitoring-related activities performed at the Site during the previous semi-annual monitoring period (July 2021 through December 2021).

Pursuant to § 257.90(e)(3) and 391-3-4-.10(6), Table 2, Groundwater Sampling Event Summary – AP-BCD, presents a summary of groundwater sampling events completed for AP-BCD.

### 2.1 Monitoring Well Installation and Maintenance

There was no change to the certified groundwater monitoring system during this reporting period. The groundwater monitoring system has remained the same since July 2021. Monitoring wells are inspected semiannually to determine 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 September 2021, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed, as documented in Well



Inspection Logs, located in Appendix A. This documentation will serve as the required five year well inspection and was performed 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 statistically significant increases (SSIs) documented in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Golder 2019). A notice of assessment monitoring was placed in the operation record on November 13, 2019.

A semi-annual groundwater sampling event was conducted for AP-BCD during September 2021 in accordance with § 257.93 and GA EPD rule 391-3-4-.10(6)(a). Samples were collected from each well in the certified monitoring system for the CCR unit. The location of each of these monitoring wells is shown on Figure 2. The groundwater wells sampled are presented in Table 1. Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for AP-BCD and the status of the monitoring network.

During the September 2021 semi-annual sampling event, groundwater samples from each detection and assessment monitoring well were collected for analysis of Appendix III and Appendix IV constituents. Results of sampling activities during this monitoring period are presented in Appendix A, Analytical Results, Field Data Forms, Field Calibration Forms, Well Inspection Logs, and Data Validation Summaries.

## 2.3 Additional Sampling and Surface Water Sampling

Additional sampling was conducted during the reporting period in support of the assessment of corrective measures and in continuing to evaluate the nature and extent of impacts resulting from AP-BCD. This additional sampling is further discussed in Section 4.3.

Due to the presence of surface water features downgradient of BRGWC-50, Georgia Power proactively collected surface water samples from discrete (surface, middle, and bottom) depths at six locations on September 23, 2021, in Lake Sinclair, the locations closest to BRGWC-50 shown on Figure 2. The six locations are sampled 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 downgradient of well BRGWC-50. Surface water samples are collected in accordance with Region 4 US EPA *Science and Ecosystem Support Division Operating Procedures for Surface Water Sampling* SESDPROC-201-R4 (December 16, 2016). The laboratory reports associated with the September 23, 2021, sampling event are provided in Appendix A. Georgia Power will continue collecting the surface water samples semi-annually.

## 3.0 SAMPLE METHODOLOGY AND ANALYSIS

The sampling event completed during this reporting period for AP-BCD represents the Appendix III and Appendix IV semi-annual assessment monitoring event. Groundwater analytical data and chain of custody records are presented in Appendix A. The following sections describe methods used to conduct groundwater monitoring at the Site.

### 3.1 Groundwater Elevation Measurement

Prior to the scheduled sampling event, groundwater elevations were recorded at each monitoring well and piezometer and piezometers including temporary landfill piezometers. Groundwater elevations are summarized in Table 3, Summary of Groundwater Elevations – AP-BCD and AP-E. The recorded water level data were used to

develop Figure 3, Potentiometric Surface Elevation Contour Map – September 20, 2021. Review of Figure 3 shows that the general direction of groundwater flow across AP-BCD is to the south-southeast. This groundwater flow pattern is consistent with previous observations.

### 3.2 Groundwater Gradient and Flow Velocity

Groundwater flow rates at the Site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Based on slug test data at the Site (Geosyntec, 2020), hydraulic conductivity ranges from 2.7 to 5.5 feet per day, which is used in the flow calculations. The hydraulic gradient was calculated between well pairs shown on Table 4, Groundwater Flow Velocity Calculations – AP-BCD (September 2021). An effective porosity of 0.20 was used based on the default values for effective porosity recommended by US EPA for a silty sand-type soil (US EPA, 1996).

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

$$V = \frac{K * i}{n_e} \quad \text{Where:}$$

$V =$  Groundwater flow velocity  $\left(\frac{\text{feet}}{\text{day}}\right)$   
 $K =$  Average hydraulic conductivity of the aquifer  $\left(\frac{\text{feet}}{\text{day}}\right)$   
 $i =$  Horizontal hydraulic gradient  $\left(\frac{\text{feet}}{\text{feet}}\right)$   
 $n_e =$  Effective porosity

Using this equation and groundwater elevation data from these sampling events, groundwater flow velocities are calculated for various areas of the Site and are tabulated on Table 4.

As presented on Table 4, groundwater flow velocity at the Site ranges from approximately 0.18 to 0.85 feet per day (or approximately 65 to 310 feet per year) across AP-BCD. The observed groundwater flow velocities calculated for this monitoring event are also generally consistent with expected velocities in the regolith-upper bedrock aquifers of Georgia Piedmont and confirm the groundwater monitoring system as properly located to monitor the uppermost aquifer for AP-BCD at Plant Branch.

### 3.3 Groundwater Sampling

Groundwater samples were collected in September 2021 in accordance with § 257.93(a), 391-3-4-.10(6) and US EPA procedures. Monitoring wells were purged and sampled using low-flow sampling procedures. Dedicated and/or non-dedicated low-flow pneumatic bladder or peristaltic pumps were used to purge and sample the wells. During the purging of each well, field measurements of temperature, specific conductance, dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP) were recorded using a SmarTroll® or AquaTroll® (In-Situ field instruments) along with a separate turbidity meter to verify stabilization.

Groundwater samples were collected when the following general stabilization criteria were met:

- 0.1 standard units for pH
- 5% for specific conductance
- ±10% for DO where DO>0.5 milligrams per liter (mg/L); if DO<0.5 mg/L (no stabilization criteria apply)

- Turbidity measurements less than 5 nephelometric turbidity units (NTUs).

Following well stabilization, samples were collected directly into appropriately preserved laboratory supplied sample containers, placed in ice-packed coolers, and submitted to the laboratory following standard chain-of-custody protocol. Field information forms, generated directly from the In-Situ field instruments, and chain-of-custody records are included in Appendix A.

Environmental monitoring field data sheets are included with the analytical reports in Appendix A. Field data and sampling notes for each monitoring well are recorded on the field information forms, which contain a description of the sampling equipment, sampling method, purge rate, field observations, field calibration forms, and depth to water measurements at each monitoring location.

### 3.4 Laboratory Analyses

The groundwater samples were analyzed for Appendix III and Appendix IV monitoring parameters per 40 CFR Parts 257 and 261. Table 5 Analytical Data Summary – AP-BCD (September 2021), present a tabulated summary of the September 2021 sampling results. Surface water results are presented on Table 6 Analytical Data Summary – Surface Water – AP-BCD (September 2021). Analytical methods used for groundwater monitoring parameters can be found on the attached analytical data reports in Appendix A.

Laboratory analyses for these assessment monitoring events were performed by Pace Analytical (Pace) in Atlanta, Georgia and Greensburg, Pennsylvania. Pace is accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. NELAP certification for Pace for 2021 are provided in Appendix A. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

### 3.5 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality (QA/QC) control samples are collected at a rate of one sample per every 10 samples. Equipment blanks (where non-dedicated sampling equipment is used), field blanks, and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in Appendix A.

Groundwater quality data in this report was independently validated in accordance with US EPA guidance (US EPA, 2002) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestions spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. The data are considered usable for meeting project objectives, and the results are considered valid.

A value followed by a "J" flag in tables and laboratory reports indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (RL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses.

## 4.0 STATISTICAL ANALYSES

Statistical analysis of Appendix III groundwater monitoring data was performed pursuant to § 257.93 and 391-3-4-.10(6) following the established statistical method for AP-BCD. In addition, pursuant to § 257.95(d)(2), Georgia Power established groundwater protection standards (GWPS) for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the September 2021 assessment monitoring event. The report generated from the analyses is provided in Appendix B. The September 2021 data were statistically analyzed by Groundwater Stats Consulting (GSC).

### 4.1 Statistical Method

The selected statistical method for AP-BCD was developed in accordance with § 257.93(f) and 391-3-4-.10(6) using methodology presented in Statistical Analysis of Groundwater Data at Resource Conservation and Recovery Act (RCRA) Facilities, Unified Guidance, (US EPA, 2009). The Sanitas Groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the US EPA (2009) document.

#### 4.1.1 Appendix III Assessment Monitoring Statistical Methods

Groundwater quality data were evaluated through use of interwell prediction limits for Appendix III parameters. Using this method, upgradient well data were pooled to establish a background statistical limit. Data from the September 2021 assessment monitoring event were compared to the statistical limit to determine whether any concentrations exceed background levels. The selected statistical method uses an optional 1-of-2 verification resample plan. When an initial SSI or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier.

If resampling is performed and the result does not confirm the initial finding, the initial exceedance is considered a false positive result and there is no confirmed exceedance. When the resample confirms the initial finding, an SSI is declared. The Sen's Slope/Mann Kendall trend test was used to statistically evaluate concentration levels over time and determine whether concentrations are increasing, decreasing, or stabilizing.

#### 4.1.2 Appendix IV Assessment Monitoring Statistical Methods

For the Assessment Monitoring Program (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).

US EPA revised the Federal CCR Rule on July 30, 2018, specifying GWPS for cobalt, lead, lithium, and molybdenum as described in 40 CFR § 257.95(h)(2).

As described in 40 CFR § 257.95(h)(1-3), the GWPS for cobalt, lead, lithium and molybdenum are:

- Cobalt 0.006 mg/L
- Lead 0.015 mg/L
- Lithium 0.040 mg/L

- Molybdenum 0.100 mg/L
- Background levels where the background level is higher than the Rule-specified GWPS.

Presently those Rule-specified GWPS have not yet been incorporated in the EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, under GA EPD rules, background concentrations are considered when determining the GWPS for constituents where a maximum contaminant level (MCL) has not been established (or where background is higher than the MCL). Under the existing GA EPD rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above State rule requirements, GWPS were established for statistical comparison of Appendix IV constituents. Summary of Background Levels and GWPS – AP-BCD (Table 7) summarizes the background limit established at each monitoring well and the GWPS established under State rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS established for the State rules. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. If there is an exceedance of the established standard, a statistically significant level (SSL) exceedance is identified.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix B, Statistical Analyses. The background period for statistical analyses included data through September 2021. Tolerance limits for confidence interval calculations are updated to include current data. Due to varying reporting limits in background, the most recent reporting limit is used when data is not reported above detection limits. This results in a more appropriate statistical test.

## 4.2 Statistical Analysis Results

Analytical data from the semi-annual assessment monitoring event in September 2021 at AP-BCD have been statistically analyzed in accordance with the Site's certified Statistical Analysis Plan. The statistical results of the September 2021 monitoring event are included in Appendix B, Statistical Analyses.

### 4.2.1 September 2021 Appendix III Statistical Results

Based on the Appendix III statistical results, groundwater conditions have not returned to background and assessment monitoring should continue pursuant to 40 CFR 257.95(f). A detailed list of the noted exceedances is provided in Appendix B.

### 4.2.2 September 2021 Appendix IV Statistical Results

Analytical data from the September 2021 monitoring event at AP-BCD have been statistically analyzed in accordance with the Site's certified statistical analysis method. Review of the Sanitas results indicates that using the GWPS established according to GA EPD Rule 391-3-4-.10(6)(a), the following SSLs were identified:

AP-BCD September 2021 Confidence Interval Statistically Significant Level Exceedances	
AP-BCD Monitoring Well	Appendix IV Parameter
BRGWC-50	Cadmium, Cobalt
PZ-51I	Cobalt

### 4.3 Assessment Monitoring & Delineation Status

As part of the nature and extent delineation of cobalt and cadmium exceedances noted in detection well (BRGWC-50) three horizontal delineation piezometers (PZ-51S, PZ-51I, and PZ-61I) and two vertical delineation piezometers (PZ-50D and PZ-51D) were installed at locations downgradient of well BRGWC-50. Following statistical exceedance of cobalt noted in piezometer (PZ-51I), a vertical delineation piezometer (PZ-51D) was installed near PZ-51I. A horizontal delineation piezometer (PZ-61I) was installed downgradient of PZ-51I and closer to Lake Sinclair. The nature and extent delineation for cadmium at well BRGWC-50 is complete based on sampling results collected from vertical delineation piezometer (PZ-50D) and horizontal delineation piezometer (PZ-61I).

Limited groundwater analytical data are available for assessment monitoring wells. In accordance with Section 21.1.1 of the Unified Guidance (US EPA, 2009), four independent data points are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. At the time of this report, the data set for assessment piezometers PZ-50D, PZ-61I, and PZ-51D, installed in 2020 and 2021, are limited to fewer than four independent data points. Statistical analysis will be performed on the data once four data points are available. Horizontal delineation of cobalt at BRGWC-50 is complete based on results from samples collected from Lake Sinclair (LR+9A). Vertical delineation for cobalt at well BRGWC-50 is ongoing, pending additional data from piezometer PZ-51D. A minimum of four data points is necessary to complete the statistical analyses. To date, cobalt concentrations for three samples collected from PZ-51D are below the GWPS.

Four (4) additional piezometers (PZ-57I, PZ-58I, PZ-59I and PZ-60I) were installed in March 2021 upgradient of BRGWC-50 and PZ-51I to further characterize upgradient concentrations. These piezometers were sampled in September 2021, except for PZ-59I, and analyzed for Appendix III and IV parameters, and the results are included in Table 5. Piezometer PZ-59I will be sampled during the February 2022 semi-annual event and has only been utilized for groundwater level measurements since the well was installed. An existing piezometer (PZ-44) located upgradient of BRGWC-50 was also sampled in September 2021 and the initial results are provided in Table 5. Specific details regarding the delineation of constituents with SSLs at AP-BCD are discussed in the *Semi-Annual Remedy Selection and Design Progress Report* (Appendix C).

Due to the proximity of Lake Sinclair in the downgradient direction of the well showing SSLs of cobalt (i.e., BRGWC-50), installation of additional conventional wells to horizontally characterize this area is infeasible. As such, surface water samples were collected by Arcadis from Lake Sinclair downgradient of AP-BCD to supplement horizontal delineation on September 23, 2021. The results from surface water samples collected indicate that cobalt is not detected in the samples from Lake Sinclair (Table 6). Based on data collected to date, there are no impacts to surface water by constituents with SSLs at AP-BCD at Plant Branch. The delineation status of cobalt and cadmium at the Site will be updated through routine semi-annual monitoring of assessment wells listed in Table 1 and surface water monitoring of Lake Sinclair.

## 5.0 MONITORING PROGRAM STATUS

Following the requirements of 40 CFR § 257.96, Plant Branch AP-BCD has initiated an *Assessment of Corrective Measures (ACM)* (Golder, 2020). Notification of this action was placed in the CCR operating record on July 9, 2020. Analytical results from assessment wells at AP-BCD are presented in Table 5.

In accordance with 40 CFR § 257.97(a), a remedy selection report will be prepared and submitted concurrent with semi-annual groundwater monitoring reports to document results associated with additional data collection, and present progress toward selection and design of a groundwater remedy. A copy of the report is included as Appendix C, *Supplemental Semi-Annual Remedy Selection and Design Progress Report*, February 2022.

The Semi-Annual Remedy Selection and Design Progress Report that is included as Appendix C is summarized as follows.

- i) The current site conceptual model relevant to the assessment of current measures as initially presented in the ACM report (Golder, 2020).
- ii) Summary of work completed to date to achieve delineation of constituents exceeding GWPS and a summary of data collected to date towards remedy selection.
- iii) The status of evaluating applicable corrective measures at the Site. The planned activities and anticipated schedule for the following semi-annual reporting period.

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 evaluate SSL concentrations of cobalt and cadmium in well BGWC-50 and cobalt in PZ-51I.

Pursuant to 40 CFR 257.95, the delineation wells will continue to be sampled as part of the ongoing semi-annual assessment monitoring program.

## 6.0 CONCLUSIONS AND FUTURE ACTIONS

This *2021 Semi-Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant Branch AP-BCD* has been prepared to fulfill the requirements of GA EPD Rules of Solid Waste Management 391-3-4-.10(6). The groundwater flow direction and rates interpreted during the September 2021 monitoring event are generally consistent with historical evaluations. Review of analytical results and statistical analyses developed for the Site indicates confirmed SSIs of Appendix III above background and SSLs of Appendix IV above the established GWPS. In accordance with GA EPD Rule 391-3-4-.10(6) and 40 CFR § 257.96, Georgia Power has initiated an assessment of corrective measures study for the identified SSLs. Georgia Power will continue to monitor the delineation wells and adaptively manage the Site as new data become available.

Based on the findings presented herein, Plant Branch will continue with assessment groundwater monitoring and reporting. The next semi-annual assessment sampling event is planned for February 2022. The February 2022 semi-annual assessment monitoring event will include sampling and analysis of all Appendix III and IV constituents.

## 7.0 REFERENCES

Golder Associates, 2019. *First Annual Groundwater Monitoring and Corrective Action Report*, Georgia Power Plant Branch, Milledgeville, Georgia, August 2019.

Geosyntec Consultants, 2020. *Hydrogeologic Assessment Report Revision 01*, Georgia Power - Plant Branch, Putnam County, Georgia. Submitted to Southern Company Services in November 2020.

Golder Associates, 2020. *Assessment of Corrective Measures Ash Pond BCD*, Georgia Power Plant Branch, Milledgeville, Georgia, November 2020.

US EPA, 1996. *Soil Guidance Manual, Second Edition*, Publication 9355.4-23

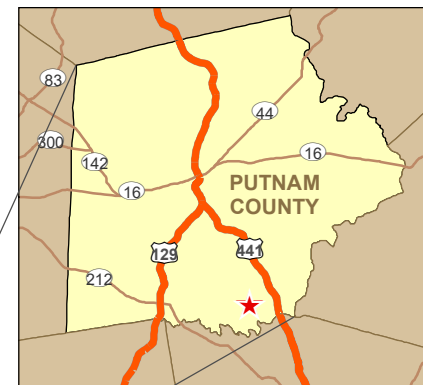
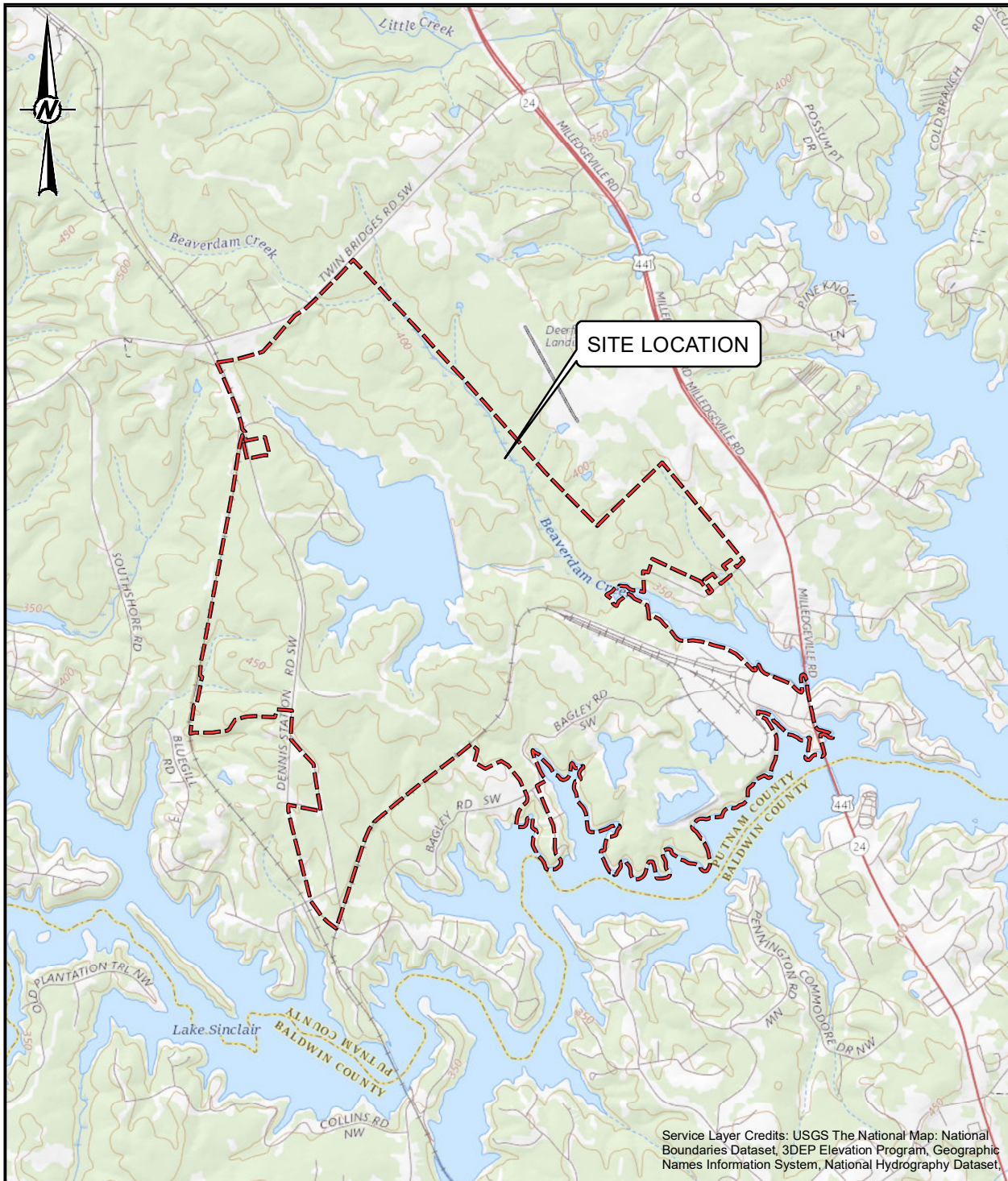
US EPA, November 2002, *Data Validation Standard Operating Procedures and Quality Assurance Manual*.

US EPA, 2009, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. EPA 530-R-09-007. USEPA. 2015. Federal Register. Volume 80. No. 74 Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81.

US EPA, Science and Ecosystem Support Division *Operating Procedures for Surface Water Sampling* SESDPROC-201-R4, December 16, 2016.



## Figures & Tables



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT BRANCH



PROJECT  
 2021 SEMI-ANNUAL GROUNDWATER MONITORING AND  
 CORRECTIVE ACTION REPORT - AP-BCD

TITLE  
**SITE LOCATION MAP**

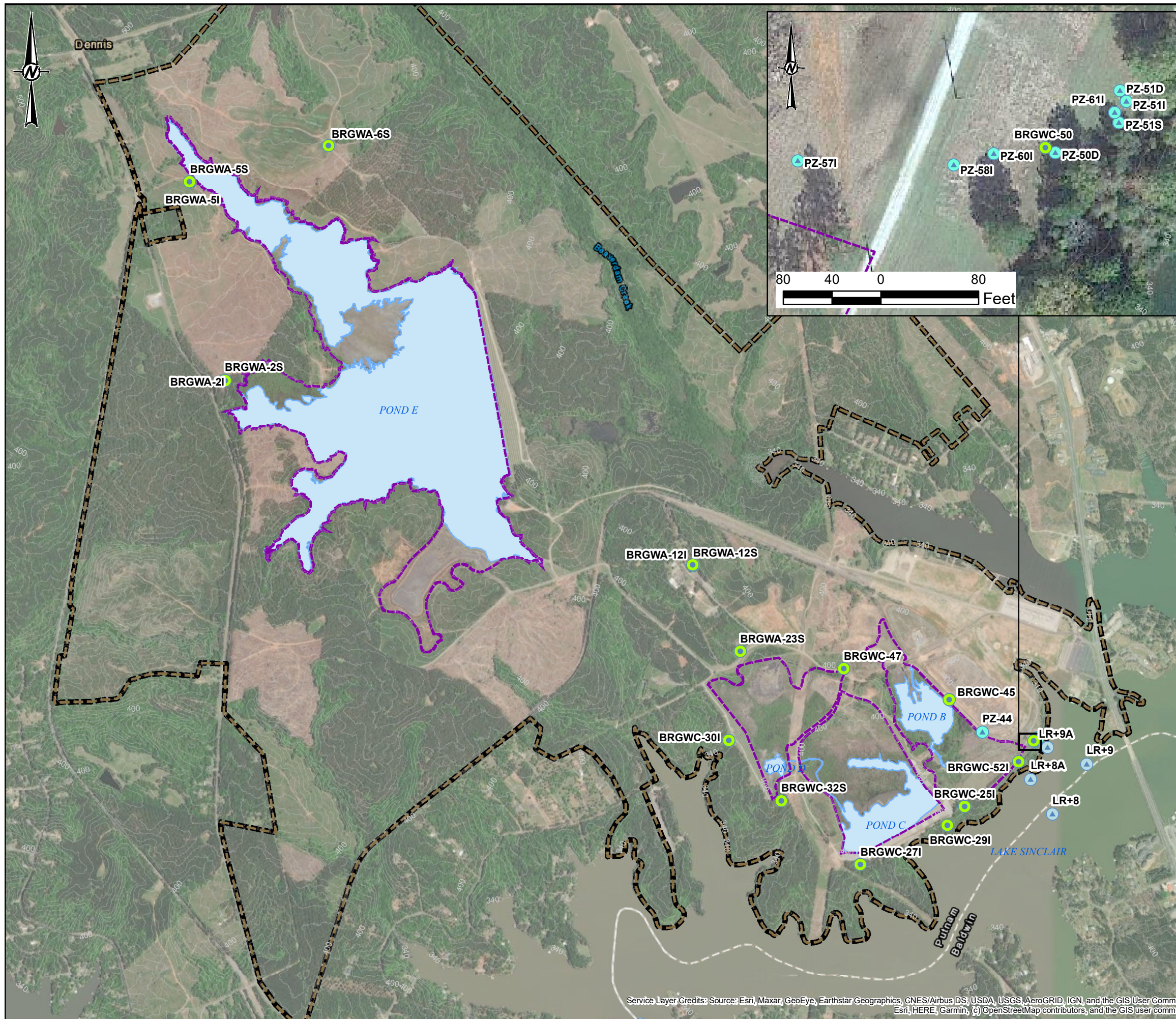
CONSULTANT



YYYY-MM-DD	2019-03-15
PREPARED	DJC
DESIGN	DLP
CHECKED	RK
REVIEW/APPROVED	DLP

PROJECT No. 166625421	CONTROL 1666254A000-GIS.mxd	Rev. 0	FIGURE 1
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Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset.



**LEGEND**

- MONITORING WELL
- ▲ PIEZOMETER
- ▲ SURFACE WATER SAMPLE
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY
- APPROXIMATE SURFACE WATER LIMITS

- REFERENCE**
1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. ASH POND BOUNDARY AND PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES.
  4. BORING/PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC.
  5. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES.
  6. TOPOGRAPHIC CONTOURS PROVIDED BY GEORGIA POWER COMPANY (MARCH 2018).



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

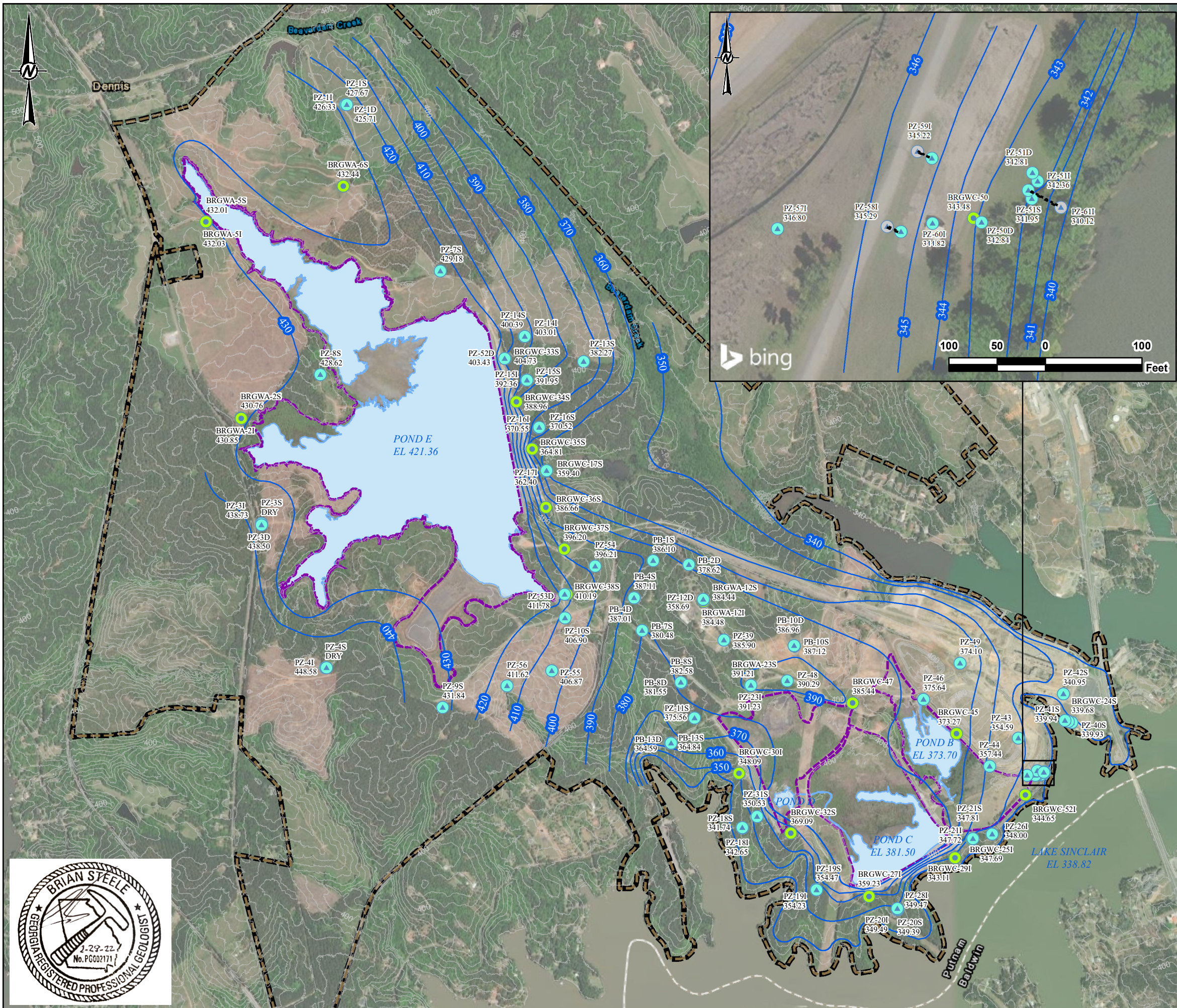
PROJECT  
**2021 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - AP-BCD**

TITLE  
**SITE PLAN AND MONITORING WELL AND SURFACE WATER LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2021-12-15
<b>GOLDER</b> MEMBER OF WSP	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK
	APPROVED	DLP

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
 Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B

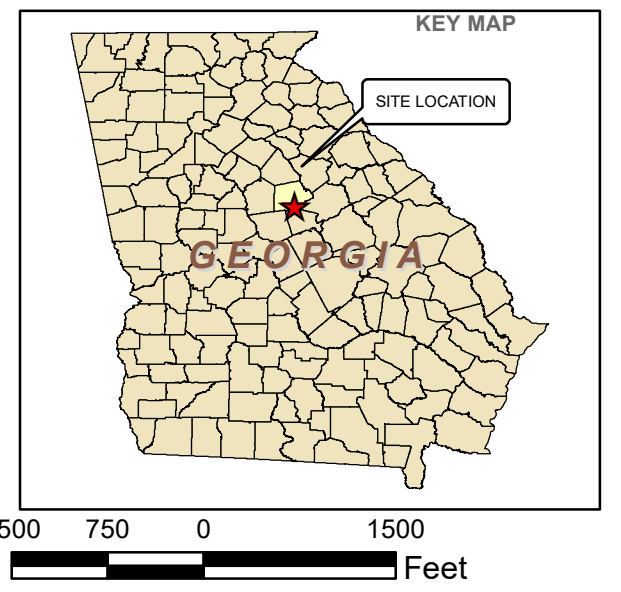


**LEGEND**

- ANGLED WELL SCREEN
- MONITORING WELL
- PIEZOMETER
- INFERRED POTENTIOMETRIC SURFACE (NAVD88)
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY
- APPROXIMATE SURFACE WATER LIMITS

- NOTES**
1. GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET
  2. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, AND TOPOGRAPHIC CONTOURS. THEREFORE, CONTOURS MAY NOT REFLECT ACTUAL CONDITIONS.
  3. DEEP (D) WELL ELEVATIONS WERE NOT USED FOR GROUNDWATER AND POND CONTOURING.
  4. NAVD88=NORTH AMERICAN VERTICAL DATUM 88.
  5. GROUNDWATER AND POND ELEVATIONS RECORDED SEPTEMBER 20, 2021.

- REFERENCE**
1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGIRD, IGN, AND THE GIS USER COMMUNITY ESRI, HERE, GARMIN, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY © 2021 MICROSOFT CORPORATION © 2021 MAXAR ©CNES (2021) DISTRIBUTION AIRBUS DS
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. BORING/PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC.
  4. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

PROJECT  
**2021 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT - AP-BCD**

TITLE  
**POTENTIOMETRIC SURFACE CONTOUR MAP**  
**SEPTEMBER 20, 2021**

CONSULTANT	DATE	REVISION
<b>GOLDER</b> MEMBER OF WSP	YYYY-MM-DD	2021-06-30
	PREPARED	BAS
	DESIGN	DC
	REVIEW	BS
	APPROVED	RK



IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B

**TABLE 1**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
<b>ASH POND BCD (AP-BCD) DETECTION MONITORING WELL NETWORK</b>													
BRGWA-2S	PZ-2S	Upgradient BCD & E	Saprolite	33.205940	-83.338294	440.43	440.4	443.20	44.6	406.20	396.20	10.0	4/2/2014
BRGWA-2I	PZ -2I	Upgradient BCD & E	Amphibolite Gneiss	33.205913	-83.338279	440.47	440.5	443.14	64.3	386.60	376.60	10.0	3/14/2014
BRGWA-5S	PZ-5S	Upgradient BCD & E	Saprolite	33.214300	-83.339971	440.87	440.8	443.86	40.0	411.20	401.20	10.0	4/3/2014
BRGWA-5I	PZ - 5I	Upgradient BCD & E	Amphibolite Gneiss	33.214317	-83.339996	441.17	441.1	443.79	61.2	390.30	380.30	10.0	4/3/2014
BRGWA-6S	PZ-6S	Upgradient BCD & E	Saprolite	33.215780	-83.333008	455.77	455.8	458.96	49.7	416.50	406.50	10.0	4/1/2014
BRGWA-12S	PZ-12S	Upgradient BCD	Residuum	33.197941	-83.314864	431.64	431.6	434.64	58.3	383.70	373.70	10.0	3/4/2014
BRGWA-12I	PZ -12I	Upgradient BCD	Biotite Gneiss	33.197981	-83.314877	431.48	431.5	434.39	77.6	364.30	354.30	10.0	2/20/2014
BRGWA-23S	PZ-23S	Upgradient BCD	Saprolite/TWR	33.194311	-83.312528	425.43	425.5	428.24	40.8	394.70	384.70	10.0	7/26/2016
BRGWC-25I	PZ-25I	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.187670	-83.301326	354.96	355.0	357.37	20.5	344.50	334.50	10.0	7/25/2016
BRGWC-27I	PZ-27S	Downgradient C	Saprolite	33.185265	-83.306589	363.97	364.0	366.86	24.0	350.00	340.00	10.0	7/22/2016
BRGWC-29I	PZ-29I	Downgradient C	TWR	33.186890	-83.302200	350.61	350.6	353.23	20.0	340.60	330.60	10.0	7/23/2016
BRGWC-30I	PZ-30I	Downgradient D	Saprolite/TWR/Biotite Gneiss	33.190566	-83.313141	349.97	350.0	352.61	20.3	340.00	330.00	10.0	7/18/2016
BRGWC-32S	PZ-32S	Downgradient D	Saprolite	33.187992	-83.310531	403.62	403.6	406.39	45.0	368.60	358.60	10.0	7/20/2016
BRGWC-45	PZ-45	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.192199	-83.302065	381.65	381.6	384.58	57.0	335.00	325.00	10.0	2/3/2018
BRGWC-47	PZ-47	Downgradient D	TWR	33.193530	-83.307343	408.75	408.8	411.20	92.0	327.20	317.20	10.0	1/25/2018
BRGWC-50	PZ-50	Downgradient B	Residuum/Biotite Gneiss	33.190421	-83.297841	378.71	378.8	381.35	65.0	324.20	314.20	10.0	1/31/2018
BRGWC-52I	PZ-52	Downgradient B	Biotite Gneiss	33.189551	-83.298594	381.12	381.2	383.87	73.9	317.30	307.30	10.0	8/6/2018
PZ-50D	NA	Downgradient	Biotite Gneiss	33.190410	-83.297817	378.32	378.3	380.86	106.0	282.30	272.30	10.0	10/8/2020
PZ-51I	NA	Downgradient	Saprolite/TWR/Biotite Gneiss	33.190523	-83.297623	377.88	378.0	380.52	65.0	323.10	313.10	10.0	8/1/2018
PZ-61I	NA	Downgradient	Saprolite/TWR/Biotite Gneiss	33.190498	-83.297655	377.77	377.7	380.64	76.0	312.00	302.00	10.0	3/30/2021

**TABLE 1**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
<b>ASH POND E (AP-E) DETECTION MONITORING WELL NETWORK</b>													
BRGWA-2S	PZ-2S	Upgradient E	Saprolite	33.205940	-83.338294	440.43	440.4	443.20	44.6	406.20	396.20	10.0	4/2/2014
BRGWA-2I	PZ -2I	Upgradient E	Amphibolite Gneiss	33.205913	-83.338279	440.47	440.5	443.14	64.3	386.60	376.60	10.0	3/14/2014
BRGWA-5S	PZ-5S	Upgradient E	Saprolite	33.214300	-83.339971	440.87	440.8	443.86	40.0	411.20	401.20	10.0	4/3/2014
BRGWA-5I	PZ - 5I	Upgradient E	Amphibolite Gneiss	33.214317	-83.339996	441.17	441.1	443.79	61.2	390.30	380.30	10.0	4/3/2014
BRGWA-6S	PZ-6S	Upgradient E	Saprolite	33.215780	-83.333008	455.77	455.8	458.96	49.7	416.50	406.50	10.0	4/1/2014
BRGWC-17S	PZ-17S	Downgradient E	Alluvium	33.203532	-83.322836	362.12	362.2	365.32	7.1	360.50	355.50	5.0	3/13/2014
BRGWC-33S	PZ-33S	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.208371	-83.324826	414.10	414.2	416.68	26.4	398.20	388.20	10.0	7/26/2016
BRGWC-34S	PZ-34S	Downgradient E	Saprolite	33.206518	-83.324300	389.16	389.2	391.96	23.0	376.20	366.20	10.0	7/25/2016
BRGWC-35S	PZ-35S	Downgradient E	Saprolite	33.204484	-83.323519	363.66	363.7	366.31	27.4	346.70	336.70	10.0	7/23/2016
BRGWC-36S	PZ-36S	Downgradient E	Saprolite	33.201997	-83.322833	383.04	383.1	389.84	28.7	364.40	354.40	10.0	7/26/2016
BRGWC-37S	PZ-37S	Downgradient E	Saprolite/TWR	33.200205	-83.321914	444.35	444.4	447.05	63.6	390.80	380.80	10.0	7/24/2016
BRGWC-38S	PZ-38S	Downgradient E	Saprolite/TWR	33.198277	-83.321812	429.68	429.8	432.24	38.2	402.00	392.00	10.0	7/22/2016
<b>ASH POND BCD (AP-BCD) ASSESSMENT MONITORING WELL NETWORK</b>													
PZ-44	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.190799	-83.300405	380.49	380.5	383.04	57.0	333.90	323.90	10.0	2/2/2018
PZ-50D	NA	Downgradient B	Biotite Gneiss	33.190410	-83.297817	378.32	378.3	380.86	106.0	282.30	272.30	10.0	10/8/2020
PZ-51S	NA	Downgradient B	Residuum	33.190474	-83.297644	377.79	377.9	380.27	45.4	337.90	332.90	5.0	8/1/2018
PZ-51I	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.190523	-83.297623	377.88	378.0	380.52	65.0	323.10	313.10	10.0	8/1/2018
PZ-51D	NA	Downgradient B	Biotite Gneiss	33.190548	-83.297643	378.12	378.1	380.75	106.0	282.10	272.10	10.0	10/9/2020
PZ-57I	NA	Downgradient B	Saprolite/TWR	33.190395	-83.298504	379.38	379.4	382.50	75.9	313.80	303.80	10.0	3/24/2021
PZ-58I	NA	Downgradient B	Saprolite/TWR	33.190383	-83.298087	379.30	379.3	382.27	63.9	325.70	315.70	10.0	3/27/2021
PZ-60I	NA	Downgradient B	Saprolite/TWR	33.190407	-83.297979	379.43	379.5	382.61	60.8	329.00	319.00	10.0	3/29/2021
PZ-61I	NA	Downgradient B	Saprolite/TWR	33.190498	-83.297655	377.77	377.7	380.64	76.0	312.00	302.00	10.0	3/30/2021

**TABLE 1**  
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 Georgia Power Company - Plant Branch

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<b>PIEZOMETERS</b>													
PZ-1D	NA	Upgradient	Biotite Gneiss	33.219259	-83.332788	462.82	462.9	463.41	160.0	NA	302.90	94.5	4/4/2014
PZ-1I	NA	Upgradient	Biotite Gneiss	33.219250	-83.332855	461.71	461.9	464.71	79.5	392.80	382.80	10.0	3/10/2014
PZ-1S	NA	Upgradient	Saprolite	33.219251	-83.332821	462.22	462.4	465.07	65.0	407.80	397.80	10.0	3/20/2014
PZ-3D	NA	Upgradient	Biotite Gneiss	33.201356	-83.337283	486.67	486.7	487.50	130.0	NA	358.59	82.0	3/27/2014
PZ-3I	NA	Upgradient	Biotite Gneiss	33.201412	-83.337289	486.48	486.5	489.49	54.6	442.30	432.30	10.0	3/11/2014
PZ-3S	NA	Upgradient	Saprolite	33.201384	-83.337284	487.07	487.0	490.53	39.9	457.50	447.50	10.0	3/11/2014
PZ-4I	NA	Upgradient	Biotite Gneiss	33.195212	-83.334049	479.96	479.9	482.98	46.8	443.50	433.50	10.0	3/11/2014
PZ-4S	NA	Upgradient	Saprolite	33.195216	-83.334088	479.90	479.9	482.87	30.0	460.30	450.30	10.0	3/10/2014
PZ-7S	NA	Downgradient	Saprolite	33.212137	-83.328090	448.98	449.0	451.57	44.5	414.90	404.90	10.0	4/1/2014
PZ-8S	NA	Upgradient	Saprolite	33.207731	-83.334235	450.42	450.5	453.08	49.5	411.40	401.40	10.0	4/1/2014
PZ-9S	NA	Upgradient	Saprolite	33.193487	-83.328157	466.08	466.1	469.28	48.0	428.50	418.50	10.0	3/5/2014
PZ-10S	NA	Downgradient	Saprolite	33.197260	-83.321907	430.92	431.0	433.85	39.0	402.40	392.40	10.0	3/5/2014
PZ-11S	NA	Downgradient	Saprolite	33.192944	-83.315371	390.95	390.9	393.99	24.5	376.80	366.80	10.0	2/20/2014
PZ-12D	PZD-12D	Downgradient	Biotite Gneiss	33.198010	-83.314885	431.40	431.4	434.09	141.7	350.10	290.10	60.0	4/14/2014
PZ-13S	NA	Downgradient	Saprolite	33.208218	-83.320866	406.45	406.5	409.97	34.7	382.20	372.20	10.0	3/19/2014
PZ-14I	NA	Downgradient	Biotite Gneiss	33.209302	-83.323834	419.85	419.9	422.71	53.8	376.50	366.50	10.0	3/20/2014

**TABLE 1**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
PZ-14S	NA	Downgradient	Saprolite	33.209303	-83.323855	420.17	420.2	423.31	37.6	393.00	383.00	10.0	3/20/2014
PZ-15I	NA	Downgradient	Biotite Gneiss/Amphibolite	33.207440	-83.323742	400.10	400.2	403.06	88.7	321.90	311.90	10.0	3/25/2014
PZ-15S	NA	Downgradient	Saprolite	33.207438	-83.323759	400.04	400.1	402.90	39.9	370.20	360.20	10.0	3/27/2014
PZ-16I	NA	Downgradient	Amphibolite Gneiss	33.205401	-83.323146	379.41	379.5	382.45	38.6	351.30	341.30	10.0	3/14/2014
PZ-16S	NA	Downgradient	Saprolite	33.205393	-83.323166	379.32	379.3	382.52	19.1	370.60	360.60	10.0	3/18/2014
PZ-17I	NA	Downgradient	Amphibolite Gneiss	33.203566	-83.322788	362.22	362.3	365.33	43.5	329.20	319.20	10.0	3/17/2014
PZ-18I	NA	Downgradient	Biotite Gneiss	33.188252	-83.312988	359.65	359.6	362.55	38.4	331.30	321.30	10.0	2/26/2014
PZ-18S	NA	Downgradient	Saprolite	33.188228	-83.312982	359.77	359.7	362.82	24.2	345.00	335.00	10.0	3/26/2014
PZ-19I	NA	Downgradient	Biotite Gneiss	33.185563	-83.309241	368.85	368.9	371.74	43.7	335.60	325.60	10.0	3/4/2014
PZ-19S	NA	Downgradient	Saprolite	33.185586	-83.309258	368.50	368.4	371.42	28.0	350.80	340.80	10.0	3/4/2014
PZ-20I	NA	Downgradient	Biotite Gneiss	33.184705	-83.305130	362.16	362.2	365.34	29.5	343.10	333.10	10.0	3/5/2014
PZ-20S	NA	Downgradient	Saprolite	33.184691	-83.305140	362.19	362.2	365.41	15.3	357.30	347.30	10.0	3/5/2014
PZ-21I	NA	Downgradient	Biotite Gneiss	33.187691	-83.301283	355.85	355.8	358.92	24.4	341.80	331.80	10.0	3/10/2014
PZ-21S	NA	Downgradient	Residuum/Saprolite	33.187694	-83.301305	355.43	355.5	358.52	9.8	351.10	346.10	5.0	3/11/2014
PZ-23I	NA	Downgradient	Biotite Gneiss	33.194321	-83.312497	425.00	425.1	427.74	66.5	368.60	358.60	10.0	7/29/2016
PZ-24S	BRGWC-24S	Downgradient A	Saprolite	33.192629	-83.296220	351.35	351.4	354.10	42.0	319.90	309.90	10.0	7/27/2016
PZ-26I	NA	Downgradient	Biotite Gneiss	33.187898	-83.300306	368.01	368.0	370.63	30.5	347.50	337.50	10.0	7/26/2016
PZ-28I	NA	Downgradient	TWR/Biotite Gneiss	33.184732	-83.305158	362.45	362.5	364.81	24.0	348.50	338.50	10.0	7/24/2016
PZ-31S	NA	Downgradient	TWR	33.188716	-83.312244	374.35	374.3	376.77	39.5	344.80	334.80	10.0	7/26/2016
PZ-39	NA	Downgradient	Saprolite	33.196254	-83.313842	431.92	432.0	434.78	44.7	397.30	387.30	10.0	7/30/2016
PZ-40S	NA	Downgradient A	Residuum	33.192669	-83.296398	353.17	353.2	355.96	40.2	324.40	314.40	10.0	2/14/2017
PZ-41S	NA	Downgradient A	Saprolite	33.192716	-83.296555	354.23	354.3	357.17	44.2	320.50	310.50	10.0	2/14/2017
PZ-42S	NA	Downgradient A	Residuum	33.193854	-83.296624	358.92	359.0	361.66	32.2	337.20	327.20	10.0	2/9/2017
PZ-43	NA	Downgradient A	Residuum/Biotite Gneiss	33.191985	-83.298942	N.A.	381.0	383.71	40.4	351.00	341.00	10.0	2/7/2018
PZ-46	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.193658	-83.303739	382.09	382.1	384.64	45.6	346.50	336.50	10.0	2/5/2018
PZ-48	NA	Downgradient D	Saprolite/TWR/Amphibolite	33.194504	-83.310642	418.20	418.3	420.90	67.0	361.70	351.70	10.0	1/24/2018



**TABLE 1**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
PZ-49	NA	Downgradient B	Residuum/Biotite Gneiss	33.195198	-83.301871	382.22	382.2	384.99	17.0	375.60	365.60	10.0	1/30/2018
PZ-52D	NA	Downgradient E	Biotite Gneiss	33.208362	-83.324870	414.15	414.3	417.03	59.5	364.80	354.80	10.0	5/14/2020
PZ-53D	NA	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.198283	-83.321917	431.59	431.6	434.68	139.4	302.20	292.20	10.0	5/17/2020
PZ-54	NA	Downgradient E	Saprolite/TWR	33.199468	-83.320356	440.71	440.8	443.86	52.0	398.80	388.80	10.0	5/15/2020
PZ-55	NA	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.195029	-83.322604	450.11	450.2	453.07	49.3	410.90	400.90	10.0	5/19/2020
PZ-56	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.194377	-83.324890	416.17	416.2	418.84	29.3	396.90	386.90	10.0	5/20/2020
PB-1S	NA	Downgradient	Saprolite/PWR	33.199673	-83.317420	N.A.	400.4	403.16	38.0	372.40	362.40	10.0	1/22/2019
PB-2D	NA	Downgradient	Gneiss	33.199504	-83.315596	N.A.	414.9	416.71	57.0	367.90	357.90	10.0	12/4/2018
PB-4S	NA	Downgradient	Saprolite/PWR	33.198098	-83.318372	N.A.	409.3	411.15	48.0	371.30	361.30	10.0	1/16/2019
PB-4D	NA	Downgradient	Gneiss	33.198110	-83.318400	N.A.	409.0	412.12	114.5	304.50	294.50	10.0	1/16/2019
PB-7S	NA	Downgradient	Saprolite/PWR	33.196710	-83.318003	N.A.	399.7	402.88	33.0	376.70	366.70	10.0	1/14/2019
PB-8S	NA	Downgradient	Saprolite/PWR	33.194463	-83.316044	N.A.	398.6	401.82	35.0	373.60	363.60	10.0	1/8/2018
PB-8D	NA	Downgradient	Gneiss	33.194480	-83.316062	N.A.	398.2	401.74	106.0	304.20	294.20	10.0	1/8/2018
PB-10S	NA	Downgradient	Saprolite	33.195992	-83.310279	N.A.	397.6	400.91	33.0	374.60	364.60	10.0	1/16/2019
PB-10D	NA	Downgradient	Gneiss	33.196004	-83.310294	N.A.	397.5	400.31	85.0	322.50	312.50	10.0	1/16/2019
PB-13S	NA	Downgradient	Saprolite	33.191900	-83.316612	N.A.	370.8	373.31	50.0	330.80	320.80	10.0	12/10/2018
PB-13D	NA	Downgradient	Gneiss	33.191900	-83.316570	N.A.	371.1	373.77	97.0	284.10	274.10	10.0	12/10/2018

**Notes:**

1. feet NAVD88 = feet North American Vertical Datum 1988 feet NAD83 = North American Datum 1983
2. Ground surface measured at the mag nail in the concrete pad
3. feet bgs = feet below ground surface
4. TWR = Transitionally Weathered Rock
5. NA = Not applicable
6. Piezometers may be used to collect waters levels. They are not considered compliance monitoring locations.

**TABLE 2**  
**GROUNDWATER SAMPLING EVENT SUMMARY - AP-BCD**  
 Georgia Power Company - Plant Branch

Well ID	Hydraulic Location	Summary of Sampling Events	Status of Monitoring Well
		September 2021	
Purpose of Sampling Event		Compliance / Assessment	
<b>ASH POND BCD (AP-BCD) DETECTION MONITORING WELL NETWORK</b>			
BRGWA-2S	Upgradient	X	Assessment
BRGWA-2I	Upgradient	X	Assessment
BRGWA-5S	Upgradient	X	Assessment
BRGWA-5I	Upgradient	X	Assessment
BRGWA-6S	Upgradient	X	Assessment
BRGWA-12S	Upgradient	X	Assessment
BRGWA-12I	Upgradient	X	Assessment
BRGWA-23S	Upgradient	X	Assessment
BRGWC-25I	Downgradient	X	Assessment
BRGWC-27I	Downgradient	X	Assessment
BRGWC-29I	Downgradient	X	Assessment
BRGWC-30I	Downgradient	X	Assessment
BRGWC-32S	Downgradient	X	Assessment
BRGWC-45	Downgradient	X	Assessment
BRGWC-47	Downgradient	X	Assessment
BRGWC-50	Downgradient	X	Assessment
BRGWC-52I	Downgradient	X	Assessment
<b>ASH POND BCD (AP-BCD) ASSESSMENT MONITORING WELL NETWORK</b>			
PZ-44	Downgradient	X	Assessment
PZ-50D	Downgradient	X	Assessment
PZ-51S	Downgradient	X	Assessment
PZ-51I	Downgradient	X	Assessment
PZ-51D	Downgradient	X	Assessment
PZ-57I	Downgradient	X	Assessment
PZ-58I	Downgradient	X	Assessment
PZ-60I	Downgradient	X	Assessment
PZ-61I	Downgradient	X	Assessment

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS - AP-BCD and AP-E**  
 Georgia Power Company- Plant Branch

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
<b>ASH POND BCD (AP-BCD) DETECTION MONITORING WELL NETWORK</b>		
BRGWA-12S	434.64	384.44
BRGWA-12I	434.39	384.48
BRGWA-23S	428.24	391.21
BRGWC-25I	357.37	347.69
BRGWC-27I	366.86	359.23
BRGWC-29I	353.23	343.11
BRGWC-30I	352.61	348.09
BRGWC-32S	406.39	369.09
BRGWC-45	384.58	373.27
BRGWC-47	411.20	385.44
BRGWC-50	381.35	343.48
BRGWC-52I	383.87	344.65

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS - AP-BCD and AP-E**  
 Georgia Power Company- Plant Branch

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
<b>ASH POND E (AP-E) DETECTION MONITORING WELL NETWORK</b>		
BRGWA-2S	443.20	430.76
BRGWA-2I	443.14	430.85
BRGWA-5S	443.86	432.01
BRGWA-5I	443.79	432.03
BRGWA-6S	458.96	432.44
BRGWC-17S	365.32	359.40
BRGWC-33S	416.68	404.73
BRGWC-34S	391.96	388.96
BRGWC-35S	366.31	364.81
BRGWC-36S	389.84	386.66
BRGWC-37S	447.05	396.20
BRGWC-38S	432.24	410.19
<b>ASH POND BCD (AP-BCD) ASSESSMENT MONITORING WELL NETWORK</b>		
PZ-44	383.04	357.44
PZ-50D	380.86	342.84
PZ-51S	380.27	341.95
PZ-51I	380.52	342.36
PZ-51D	380.75	342.81
PZ-57I	382.50	346.80
PZ-58I	382.27	345.29
PZ-59I	383.49	345.22
PZ-60I	382.61	344.82
PZ-61I	380.64	340.12

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS - AP-BCD and AP-E**  
 Georgia Power Company- Plant Branch

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
<b>PIEZOMETERS</b>		
PZ-1S	465.07	427.67
PZ-1I	464.71	426.33
PZ-1D	463.41	425.71
PZ-3S	490.53	DRY
PZ-3I	489.49	438.73
PZ-3D	487.50	438.50
PZ-4S	482.87	DRY
PZ-4I	482.98	448.58
PZ-7S	451.57	429.18
PZ-8S	453.08	428.62
PZ-9S	469.28	431.84
PZ-10S	433.85	406.90
PZ-11S	393.99	375.56
PZ-12D	434.09	358.69
PZ-13S	409.97	382.27
PZ-14S	423.31	400.39
PZ-14I	422.71	403.01
PZ-15S	402.90	391.95
PZ-15I	403.06	392.36
PZ-16S	382.52	370.52
PZ-16I	382.45	370.55
PZ-17I	365.33	362.40
PZ-18S	362.82	341.74
PZ-18I	362.55	342.65
PZ-19S	371.42	354.47
PZ-19I	371.74	354.23
PZ-20S	365.41	349.39
PZ-20I	365.34	349.49
PZ-21S	358.52	347.81

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS - AP-BCD and AP-E**  
 Georgia Power Company- Plant Branch

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
<b>PIEZOMETERS</b>		
PZ-21I	358.92	347.72
PZ-23I	427.74	391.23
BRGWC-24S	354.10	339.68
PZ-26I	370.63	348.00
PZ-28I	364.81	349.47
PZ-31S	376.77	350.53
PZ-39	434.78	385.90
PZ-40S	355.96	339.93
PZ-41S	357.17	339.94
PZ-42S	361.66	340.95
PZ-43	383.71	354.59
PZ-46	384.64	375.64
PZ-48	420.90	390.29
PZ-49	384.99	374.10
PZ-52D	417.03	403.43
PZ-53D	434.68	411.78
PZ-54	443.86	396.21
PZ-55	453.07	406.87
PZ-56	418.84	411.62

**TABLE 3**  
**SUMMARY OF GROUNDWATER ELEVATIONS - AP-BCD and AP-E**  
 Georgia Power Company- Plant Branch

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
<b>TEMPORARY LANDFILL PIEZOMETERS</b>		
PB-1S	403.16	386.10
PB-2D	416.71	378.62
PB-4S	411.15	387.11
PB-4D	412.12	387.01
PB-7S	402.88	380.48
PB-8S	401.82	382.58
PB-8D	401.74	381.55
PB-10S	400.91	387.12
PB-10D	400.31	386.96
PB-13S	373.31	364.84
PB-13D	373.77	364.59

**Notes:**

1. Feet NAVD88 = feet North American Vertical Datum 1988

**TABLE 4**  
**GROUNDWATER VELOCITY CALCULATIONS - AP-BCD (September 2021)**  
 Georgia Power Company - Plant Branch

Flow Paths	Groundwater Elevation (feet NAVD88) <sup>7</sup>	$\Delta H$ (feet) <sup>1</sup>	$\Delta L$ (feet) <sup>2</sup>	Hydraulic Gradient ( $\Delta H/\Delta L$ ) <sup>3</sup>	Average Hydraulic Conductivity, K (feet per day) <sup>5</sup>	Assumed Effective Porosity ( $n_e$ ) <sup>6</sup>	Average Linear Groundwater Velocity	
							(feet per day) <sup>4</sup>	(feet per year) <sup>4</sup>
<b>AP-BCD September 20, 2021</b>								
BRGWA-23S / BRGWC-30I	391.21	43.12	1375.0	0.031	2.73 to 5.47	0.2	0.42 to 0.85	154.4 to 309.5
	348.09							
BRGWC-47 / BRGWC-50	385.44	41.96	3120.0	0.013	2.73 to 5.47	0.2	0.18 to 0.36	64.8 to 129.8
	343.48							

**Notes:**

1.  $\Delta H$  = Change in groundwater elevation.
2.  $\Delta L$  = Distance along flow path.
3.  $I = \Delta H / \Delta L$ .
4. Velocity =  $(I * K)/n_e$ .
5. Hydraulic conductivity range based on historical aquifer performance tests (revised 4/2019).
6. Effective porosity based on default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996).
7. NAVD88 = North American Vertical Datum 1988.



**TABLE 5**  
**ANALYTICAL DATA SUMMARY - AP-BCD (September 2021)**  
 Georgia Power Company - Plant Branch

Analyte	Units	DETECTION MONITORING WELLS											
		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWA-12S	BRGWA-12I	BRGWA-23S	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-30I
		9/22/2021	9/22/2021	9/21/2021	9/21/2021	9/22/2021	9/21/2021	9/21/2021	9/22/2021	9/28/2021	9/28/2021	9/28/2021	9/28/2021
<b>Appendix III</b>													
BORON, TOTAL	mg/L	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	0.047	1.1	0.95	0.90	1.7
CALCIUM, TOTAL	mg/L	4.3	15.9	19.1	14.1	4.1	5.4	16.4	9.2	38.4	50.4	59.5	212
CHLORIDE, TOTAL	mg/L	1.5	1.7	3.2	3.2	2.1	3.5	2.1	2.8	4.2	3.7	5.4	3.4
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	0.056 J	< 0.050	< 0.050	< 0.050	0.071 J	0.069 J	0.15	0.16	0.081 J	0.11
pH	S.U.	6.06	6.78	6.36	6.32	6.48	5.87	6.53	5.72	5.97	5.82	4.23	6.33
SULFATE, TOTAL	mg/L	< 0.50	5.2	< 0.50	2.3	< 0.50	0.51 J	1.7	34.6	112	137	250	612
TOTAL DISSOLVED SOLIDS	mg/L	66.0	129	104	108	62.0	56.0	117	128	270	262	457	1050
<b>Appendix IV</b>													
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.017	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
BARIUM, TOTAL	mg/L	0.0097	0.0075	0.038	0.025	0.014	0.060	0.074	0.070	0.023	0.013	0.017	0.035
BERYLLIUM, TOTAL	mg/L	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	0.00079	< 0.000054
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
CHROMIUM, TOTAL	mg/L	0.0091	< 0.0011	0.0044 J	0.0064	0.014	0.0024 J	0.0023 J	0.0026 J	< 0.0011	< 0.0011	< 0.0011	< 0.0011
COBALT, TOTAL	mg/L	< 0.00039	0.0015 J	< 0.00039	0.00071 J	0.00078 J	< 0.00039	< 0.00039	< 0.00039	0.0029 J	0.0047 J	0.0069	0.010 J
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	0.056 J	< 0.050	< 0.050	< 0.050	0.071 J	0.069 J	0.15	0.16	0.081 J	0.11
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
LITHIUM, TOTAL	mg/L	< 0.00073	0.021 J	< 0.00073	0.0012 J	0.0035 J	< 0.00073	0.0037 J	0.0074 J	< 0.00073	0.0011 J	0.0029 J	0.023 J
MERCURY, TOTAL	mg/L	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00010 J	< 0.000078	< 0.000078	< 0.000078	< 0.000078
MOLYBDENUM, TOTAL	mg/L	< 0.00074	0.0012 J	< 0.00074	0.0020 J	< 0.00074	< 0.00074	< 0.00074	< 0.00074	0.00089 J	< 0.00074	< 0.00074	0.0010 J
RADIUM (226 + 228)	pCi/L	1.33 U	0.349 U	0.860 U	0.182 U	0.943 U	0.468 U	1.33	1.40	4.44	3.58	1.49	0.749 U
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	0.0016 J	< 0.0014	< 0.0014	0.0022 J	< 0.0014
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

**Notes:**

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed as less than the MDC and considered an undetected result (U qualified). The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. -- indicates the data is not currently available.

**TABLE 5**  
**ANALYTICAL DATA SUMMARY - AP-BCD (September 2021)**  
 Georgia Power Company - Plant Branch

Analyte	Units	DETECTION MONITORING WELLS				ASSESSMENT MONITORING WELLS									
		BRGWC-32S	BRGWC-45	BRGWC-47	BRGWC-50	PZ-44	PZ-50D	PZ-51D	PZ-51I	PZ-51S	BRGWC-52I	PZ-57I	PZ-58I	PZ-60I	PZ-61I
		9/28/2021	9/23/2021	9/23/2021	9/27/2021	9/28/2021	9/28/2021	9/28/2021	9/27/2021	9/27/2021	9/28/2021	9/28/2021	9/28/2021	9/28/2021	9/27/2021
<b>Appendix III</b>															
BORON, TOTAL	mg/L	0.91	0.029 J	0.47	0.32	1.3	0.24	0.023 J	0.39	< 0.0086	1.4	0.48	0.36	0.23	0.26
CALCIUM, TOTAL	mg/L	33.9	32.0	336	196	24.2	225	113	187	7.5	39.5	51.1	108	274	230
CHLORIDE, TOTAL	mg/L	3.6	29.3	4.3	16.2	5.0	13.0	12.8	9.4	3.8	5.5	5.9	9.6	27.2	20.0
FLUORIDE, TOTAL	mg/L	< 0.050	0.060 J	< 0.050	0.43	0.080 J	0.11	0.26	< 0.050	0.072 J	0.12	0.085 J	0.97	1.6	0.067 J
pH	S.U.	5.82	5.95	5.74	5.05	6.22	6.23	7.18	5.34	6.04	6.81	5.37	4.00	4.77	5.02
SULFATE, TOTAL	mg/L	189	97.5	1240	1180	47.2	866	294	933	< 0.50	132	259	628	1670	1420
TOTAL DISSOLVED SOLIDS	mg/L	375	277	1770	1800	181	1470	650	1560	88.0	336	542	1120	2600	2100
<b>Appendix IV</b>															
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0012 J	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	0.0020 J	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0023 J
BARIUM, TOTAL	mg/L	0.020	0.064	0.031	0.017	0.049	0.034	0.057	0.014	0.025	0.013	0.022	0.017	0.022	0.029
BERYLLIUM, TOTAL	mg/L	< 0.000054	< 0.000054	< 0.000054	0.0060	< 0.000054	0.000059 J	< 0.000054	0.000071 J	< 0.000054	< 0.000054	0.00031 J	0.025	0.065	0.0017
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	0.0095	< 0.00011	< 0.00011	< 0.00011	0.0031	< 0.00011	< 0.00011	0.00064	0.0042	0.016	0.00081
CHROMIUM, TOTAL	mg/L	0.0021 J	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0077
COBALT, TOTAL	mg/L	< 0.00039	0.0049 J	< 0.00039	1.3	< 0.00039	0.20	< 0.00039	0.020	0.0022 J	< 0.00039	0.055	0.39	3.5	0.45
FLUORIDE, TOTAL	mg/L	< 0.050	0.060 J	< 0.050	0.43	0.080 J	0.11	0.26	< 0.050	0.072 J	0.12	0.085 J	0.97	1.6	0.067 J
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	0.0019
LITHIUM, TOTAL	mg/L	0.0021 J	0.0023 J	0.042	0.038	0.0048 J	0.020 J	0.0096 J	0.020 J	< 0.00073	0.0035 J	0.018 J	0.041	0.10	0.0095 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078
MOLYBDENUM, TOTAL	mg/L	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	0.0021 J	0.0029 J	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074
RADIUM (226 + 228)	pCi/L	0.947 U	0.619 U	0.527 U	2.07	0.526 U	1.05	1.89	0.771 U	0.00107 U	3.28	0.0352 U	1.66	2.79	1.14 U
SELENIUM, TOTAL	mg/L	0.13	< 0.0014	< 0.0014	0.0022 J	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	0.0034 J	0.0049 J	0.0079
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

**Notes:**

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed as less than the MDC and considered an undetected result (U qualified). The MDC varies depending upon the sample amount and elapsed time of the measurement.
7. -- indicates the data is not currently available.

**TABLE 6**  
**ANALYTICAL DATA SUMMARY**  
**SURFACE WATER - AP-BCD (September 2021)**  
 Georgia Power Company - Plant Branch

Analyte	Units	SURFACE WATER SAMPLE LOCATION													
		LR-1 (Surface)	LR-1 (Mid)	LR-1 (Bottom)	LR+8A (Surface)	LR+9A (Surface)	LR+8 (Surface)	LR+8 (Mid)	LR+8 (Bottom)	LR+9 (Surface)	LR+9 (Mid)	LR+9 (Bottom)	LR-10 (Surface)	LR-10 (Mid)	LR-10 (Bottom)
		9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021	9/23/2021
<b>Appendix III</b>															
Boron, Total	mg/L	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Calcium, Total	mg/L	5.0	5.0	4.7	5.0	5.0	5.3	5.2	5.0	5.2	5.0	4.9	4.8	4.8	4.9
Chloride, Total	mg/L	3.1	3.1	3.1	3.4	3.4	3.3	3.3	3.4	3.4	3.4	3.4	3.5	3.5	3.5
Fluoride, Total	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate, Total	mg/L	1.8	1.8	1.8	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4
pH	S.U.	7.22	7.22	7.20	7.30	7.35	7.26	7.28	7.29	7.35	7.35	7.32	7.34	7.29	7.27
Total Dissolved Solids	mg/L	62.0	61.0	63.0	61.0	56.0	56.0	65.0	54.0	50.0	58.0	57.0	60.0	53.0	53.0
<b>Appendix IV</b>															
Cobalt, Total	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<b>Cations/Anions</b>															
Sodium, Total	mg/L	4.7	4.7	4.5	4.9	5.0	5.2	5.1	5.0	5.1	5.0	4.9	4.8	4.8	4.8
Magnesium, Total	mg/L	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5
Potassium, Total	mg/L	2.5	2.5	2.4	2.6	2.6	2.7	2.6	2.5	2.6	2.5	2.5	2.5	2.4	2.6
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	mg/L	34.2	33.2	32.0	31.9	31.8	31.5	31.9	32.7	32.8	33.0	33.5	32.9	33.0	32.6
Alkalinity, Total (CaCO <sub>3</sub> )	mg/L	34.2	33.2	32.0	31.9	31.8	31.5	31.9	32.7	32.8	33.0	33.5	32.9	33.0	32.6
<b>Field Parameters</b>															
Temperature	C	26.7	26.6	26.4	27.6	27.8	27.1	27.0	26.84	27.12	26.39	19.22	27.1	26.31	20.29
ORP	mV	31.0	31.3	32.9	27.8	32.1	32.5	15.2	17.9	11.9	12.2	19.7	13.4	14.9	15.2
Dissolved Oxygen	mg/L	5.00	6.19	5.88	5.38	6.18	5.29	4.92	4.91	6.42	6.77	5.29	5.31	5.74	5.30
Turbidity	NTU	9.96	11.21	8.49	5.41	5.08	5.93	5.71	4.32	5.34	6.71	8.21	4.78	4.99	6.13
Specific Conductance	mS/cm	0.074	0.075	0.074	0.077	0.077	0.077	0.077	0.076	0.076	0.077	0.076	0.077	0.077	0.076

**Notes:**

mg/L = milligrams per Liter; S.U. = Standard Units; C = Celsius; mV = Millivolts; NTU = Nephelometric turbidity unit

mS/cm = Millisiemens per centimeter

< = substance was not detected above the analytical reporting limit (RL). The value displayed is the RL.

**TABLE 7**  
**SUMMARY OF BACKGROUND LEVELS AND GWPS - AP-BCD**  
 Georgia Power Company - Plant Branch

Analyte	Units	Maximum Contaminant Level (MCL)	Site Specific Background September 2021 <sup>[1]</sup>	State GWPS <sup>[2]</sup>
Antimony	mg/L	0.006	0.017	0.017
Arsenic	mg/L	0.01	0.005	0.01
Barium	mg/L	2	0.13	2
Beryllium	mg/L	0.004	0.0005	0.004
Cadmium	mg/L	0.005	0.0005	0.005
Chromium	mg/L	0.1	0.016	0.1
Cobalt	mg/L	NA	0.014	0.014
Fluoride	mg/L	4	0.42	4
Lead	mg/L	NA	0.0013	0.0013
Lithium <sup>[3]</sup>	mg/L	NA	0.089	0.089
Mercury	mg/L	0.002	0.00021	0.002
Molybdenum	mg/L	NA	0.01	0.01
Radium (226 + 228)	pCi/L	5	1.65	5
Selenium	mg/L	0.05	0.006	0.05
Thallium	mg/L	0.002	0.001	0.002

**Notes:**

mg/L = milligrams per liter; pCi/L = picocuries per liter; NA = Not Available

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95(h) and 391-3-4-.10(6)(a).

[2] Under existing EPD rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL.

[3] The background tolerance limit (TL) used to evaluate GWPS for lithium is equal to the most recent laboratory specified reporting limit (RL). Per the SAP, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. However, the highest laboratory RL used was 0.05 mg/L. As a result, we have modified the GWPS to be equal to the most recently used RL (0.03 mg/L).

**APPENDIX A**

**ANALYTICAL RESULTS, FIELD DATA  
FORMS, FIELD CALIBRATION  
FORMS, WELL INSPECTION LOGS &  
DATA VALIDATION SUMMARIES**

**APPENDIX A**

# **ANALYTICAL RESULTS**

October 29, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCD BACKGROUND RADS  
Pace Project No.: 92562847

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 22, 2021 and September 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCD BACKGROUND RADDS  
Pace Project No.: 92562847

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## SAMPLE SUMMARY

Project: BRANCH AP-BCD BACKGROUND RADS  
Pace Project No.: 92562847

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92562847001	BRGWA-12S	Water	09/21/21 10:45	09/22/21 17:08
92562847002	BRGWA-12I	Water	09/21/21 13:50	09/22/21 17:08
92562847003	BRGWA-23S	Water	09/22/21 10:10	09/23/21 10:47

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92562847001	BRGWA-12S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562847002	BRGWA-12I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562847003	BRGWA-23S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD BACKGROUND RADS  
Pace Project No.: 92562847

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92562847001</b>	<b>BRGWA-12S</b>					
EPA 9315	Radium-226	0.409 ± 0.241 (0.367)	pCi/L		10/08/21 08:02	
EPA 9320	Radium-228	C:96% T:NA 0.0585 ± 0.397 (0.915)	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	C:61% T:84% 0.468 ± 0.638 (1.28)	pCi/L		10/20/21 17:19	
<b>92562847002</b>	<b>BRGWA-12I</b>					
EPA 9315	Radium-226	0.698 ± 0.296 (0.344)	pCi/L		10/08/21 08:02	
EPA 9320	Radium-228	C:98% T:NA 0.631 ± 0.444 (0.850)	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	C:59% T:91% 1.33 ± 0.740 (1.19)	pCi/L		10/20/21 17:19	
<b>92562847003</b>	<b>BRGWA-23S</b>					
EPA 9315	Radium-226	0.813 ± 0.319 (0.347)	pCi/L		10/08/21 08:02	
EPA 9320	Radium-228	C:100% T:NA 0.583 ± 0.475 (0.944)	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	C:61% T:85% 1.40 ± 0.794 (1.29)	pCi/L		10/20/21 17:19	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-12S</b> <b>Lab ID: 92562847001</b> Collected: 09/21/21 10:45      Received: 09/22/21 17:08      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.409 ± 0.241 (0.367)</b> <b>C:96% T:NA</b>	pCi/L	10/08/21 08:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.0585 ± 0.397 (0.915)</b> <b>C:61% T:84%</b>	pCi/L	10/07/21 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.468 ± 0.638 (1.28)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-12I</b> <b>Lab ID: 92562847002</b> Collected: 09/21/21 13:50      Received: 09/22/21 17:08      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.698 ± 0.296 (0.344)</b> <b>C:98% T:NA</b>	pCi/L	10/08/21 08:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.631 ± 0.444 (0.850)</b> <b>C:59% T:91%</b>	pCi/L	10/07/21 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.33 ± 0.740 (1.19)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

**Sample: BRGWA-23S**      **Lab ID: 92562847003**      Collected: 09/22/21 10:10      Received: 09/23/21 10:47      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.813 ± 0.319 (0.347)</b> <b>C:100% T:NA</b>	pCi/L	10/08/21 08:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.583 ± 0.475 (0.944)</b> <b>C:61% T:85%</b>	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.40 ± 0.794 (1.29)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

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QC Batch:	466410	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92562847001, 92562847002, 92562847003

---

METHOD BLANK: 2252279 Matrix: Water

Associated Lab Samples: 92562847001, 92562847002, 92562847003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.420 ± 0.367 (0.738) C:65% T:90%	pCi/L	10/07/21 11:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

QC Batch: 466264

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92562847001, 92562847002, 92562847003

METHOD BLANK: 2251638

Matrix: Water

Associated Lab Samples: 92562847001, 92562847002, 92562847003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.284 ± 0.229 (0.421) C:95% T:NA	pCi/L	10/08/21 08:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

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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.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562847001	BRGWA-12S	EPA 9315	466264		
92562847002	BRGWA-12I	EPA 9315	466264		
92562847003	BRGWA-23S	EPA 9315	466264		
92562847001	BRGWA-12S	EPA 9320	466410		
92562847002	BRGWA-12I	EPA 9320	466410		
92562847003	BRGWA-23S	EPA 9320	466410		
92562847001	BRGWA-12S	Total Radium Calculation	469110		
92562847002	BRGWA-12I	Total Radium Calculation	469110		
92562847003	BRGWA-23S	Total Radium Calculation	469110		

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document No.:  
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
Page 1 of 2

Issuing Authority:  
Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition  
Upon Receipt

Client Name:

Project #:

WO#: 92562847



92562847

Courier:  Commercial  Fed Ex  Pace  UPS  USPS  Other:  Client

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen? (04)

Yes  No  N/A

Thermometer:  IR Gun ID: 083 Type of Ice:  Wet  Blue  None

Cooler Temp: 1.8 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): 1.8

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

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

Yes  No

	Comments/Discrepancy:
Chain of Custody Present? <input 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 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 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: \_\_\_\_\_



Document Name:  
**Sample Condition Upon Receipt(SCUR)**  
 Document No.:  
**F-CAR-CS-033-Rev.07**

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolinas Quality Office

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

Project #

**WO# : 92562847**  
 PM: NMG Due Date: 10/13/21  
 CLIENT: GA-GA Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg  
 \*\*Bottom half of box is to list number of bottles

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 2N Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)- 5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)



# 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: Georgia Power - Coal Combustion Residuals  
 Address: 1100 Millidgeville Rd  
 Millidgeville, GA 31061  
 Email: jbraham@southenco.com  
 Phone: (404) 206-7239  
 Requested Due Date: 10 Day TAT

**Section B**  
Required Project Information:

Report To: Jody Abraham  
 Copy To: Golder  
 Purchase Order #: [Blank]  
 Project Name: Plant Branch AP-BCD Background  
 Project #: 16625421

**Section C**  
Invoice Information:

Attention: scimvoce@southenco.com  
 Company Name: [Blank]  
 Address: [Blank]  
 POC Name: Kevin Henning  
 POC Title: [Blank]  
 POC Profile #: [Blank]

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9, -) Sample IDs must be unique	MATRIX	CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Requested Analyte Filtered (Y/N)	Residual Chlorine (Y/N)	State / Location	
								Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol				Other
1	BRGWA-12S			9/21/2021	10:45		5	2	3									
2	BRGWA-12I			9/21/2021	13:50		5	2	3									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

TEMP in C  
 Received on Ice (Y/N)  
 Custody Sealed Cooler (Y/N)  
 Samples Intact (Y/N)

Requested by: [Signature]  
 Date: 9/22/21 5:08  
 Accepted by: [Signature]  
 Date: 9/22/21 17:08

DATE Signed:

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name:

GA Power

Project #:

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

Custody Seal Present?  Yes  No    Seals Intact?  Yes  No

Date/Initials Person Examining Contents: MT 9/23/21

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: 2.8    Correction Factor: Add/Subtract (°C) ±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): 2.8

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 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 checked="" type="checkbox"/> No <input 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: <u>WT</u>	
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 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: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020  
Page 2 of 2

Document No.:  
F-CAR-CS-033-Rev.07

Issuing Authority:  
Pace Carolinas Quality Office

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

Project #

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

\*\*Bottom half of box is to list number of bottles

Project #
-----------

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		1				1																		2					
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



# 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: Georgia Power - Coal Combustion Residuals  
 Address: 1100 Milledgeville Rd  
 Milledgeville, GA 31061  
 Email: jbraham@southenco.com  
 Phone: (404) 506-7239  
 Requested Due Date: 10 Day TAT

Section B  
 Required Project Information:  
 Report To: Joli Abraham  
 Copy To: Golder  
 Purchase Order #: [Blank]  
 Project Name: Plant Branch AP-BCD Background  
 Project #: 168625421

Section C  
 Invoice Information:  
 Attention: sscrivencas@southenco.com  
 Address: [Blank]  
 Company Name: [Blank]  
 Pace Quote: [Blank]  
 Pace Project Manager: Kevin Herring  
 Pace Profile #: [Blank]

Regulatory Agency: [Blank]  
 State / Location: GA

Page : 1 of 1

ITEM #	MATRIX	CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test				Requested Analyte Filtered (Y/N)	Residual Chlorine (Y/N)	pH = 5.72
							Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol	Other	Y/N				
1	BRGWA-23S	WT	9/23/2021	10:10		5	2	3											
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS: [Blank]

REINQUISHED BY / AFFILIATION: Jw.../sample

DATE: 9-23-21

TIME: 8:50

ACCEPTED BY / AFFILIATION: [Signature]

DATE: 9/23/2021

TIME: 8:50

TEMP in C: 28

Received on Ice (Y/N): Y

Custody Sealed Cooler (Y/N): Y

Samples Intact (Y/N): Y

Juli Wedgespeak / Jw...

DATE Signed: 9-23-21



# Quality Control Sample Performance Assessment

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JJY  
Date: 10/5/2021  
Worklist: 62912  
Matrix: DW



Method Blank Assessment	
MB Sample ID	2251638
MB Concentration:	0.284
M/B Counting Uncertainty:	0.225
MB MDC:	0.421
MB Numerical Performance Indicator:	2.47
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS62912	LCS062912
Count Date:	10/8/2021	10/8/2021
Spike ID:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.513
Target Conc. (pCi/L, g, F):	4.762	4.681
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	3.783	4.467
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.618	0.667
Numerical Performance Indicator:	-3.09	-0.63
Percent Recovery:	79.43%	95.43%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
	LCS62912	LCS062912
Sample ID:	92561675014	92561675014DUP
Duplicate Sample ID:	0.346	0.346
Sample Result (pCi/L, g, F):	0.147	0.147
Sample Result Counting Uncertainty (pCi/L, g, F):	0.618	0.199
Sample Duplicate Result (pCi/L, g, F):	4.467	0.131
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.667	0.131
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	-1.476	1.469
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	18.29%	54.06%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail***
% RPD Limit:	25%	25%

\*\*\* Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

\*\*\*Batch must be re-prepared due to unacceptable precision N/A

LAM 10/20/21

*Handwritten signature*

LAM 10/20/21

# Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228  
Analyst: VAL  
Date: 10/5/2021  
Worklist: 62922  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2252279
MB concentration:	0.420
MB 2 Sigma CSU:	0.367
MB MDC:	0.738
MB Numerical Performance Indicator:	2.25
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

LCS/D (Y or N)?	LCS/D (Y or N)?	
	LCS62922	Y
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.936	37.936
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.810	0.810
Target Conc. (pCi/L, g, F):	4.684	4.683
Uncertainty (Calculated):	0.229	0.229
Result (pCi/L, g, F):	4.993	5.479
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.158	1.201
Numerical Performance Indicator:	0.51	1.27
Percent Recovery:	106.61%	116.98%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS62922
Duplicate Sample I.D.:	LCS62922
Sample Result (pCi/L, g, F):	4.993
Sample Duplicate Result (pCi/L, g, F):	1.158
Sample Result 2 Sigma CSU (pCi/L, g, F):	5.479
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.201
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.571
Duplicate (Percent Recoveries) Duplicate RPD:	9.28%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Handwritten signature/initials*

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MS Spike Uncertainty (calculated):	
MSD Spike Uncertainty (calculated):	
Sample Result:	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	
MS/MSD Upper % Recovery Limits:	
MS/MSD Lower % Recovery Limits:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
Duplicate (Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

*Handwritten note: Manual*

October 29, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCDE BACKGROUND RADS  
Pace Project No.: 92562849

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 22, 2021 and September 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCDE BACKGROUND RADS  
Pace Project No.: 92562849

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92562849001	BRGWA-5S	Water	09/21/21 16:28	09/22/21 17:08
92562849002	BRGWA-5I	Water	09/21/21 12:30	09/22/21 17:08
92562849003	BRGWA-2S	Water	09/22/21 11:25	09/23/21 10:47
92562849004	BRGWA-2I	Water	09/22/21 10:21	09/23/21 10:47
92562849005	BRGWA-6S	Water	09/22/21 11:55	09/23/21 10:47

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92562849001	BRGWA-5S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562849002	BRGWA-5I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562849003	BRGWA-2S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562849004	BRGWA-2I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562849005	BRGWA-6S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCDE BACKGROUND RADS  
Pace Project No.: 92562849

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92562849001</b>	<b>BRGWA-5S</b>					
EPA 9315	Radium-226	0.298 ± 0.226 (0.394) C:94% T:NA	pCi/L		10/08/21 08:02	
EPA 9320	Radium-228	0.562 ± 0.557 (1.16) C:61% T:84%	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	0.860 ± 0.783 (1.55)	pCi/L		10/20/21 17:19	
<b>92562849002</b>	<b>BRGWA-5I</b>					
EPA 9315	Radium-226	0.123 ± 0.179 (0.391) C:98% T:NA	pCi/L		10/08/21 07:36	
EPA 9320	Radium-228	0.0589 ± 0.389 (0.891) C:62% T:91%	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	0.182 ± 0.568 (1.28)	pCi/L		10/20/21 17:19	
<b>92562849003</b>	<b>BRGWA-2S</b>					
EPA 9315	Radium-226	0.172 ± 0.153 (0.262) C:99% T:NA	pCi/L		10/08/21 07:37	
EPA 9320	Radium-228	1.16 ± 0.614 (1.11) C:59% T:83%	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	1.33 ± 0.767 (1.37)	pCi/L		10/20/21 17:19	
<b>92562849004</b>	<b>BRGWA-2I</b>					
EPA 9315	Radium-226	0.115 ± 0.155 (0.326) C:100% T:NA	pCi/L		10/08/21 07:35	
EPA 9320	Radium-228	0.234 ± 0.419 (0.917) C:62% T:83%	pCi/L		10/07/21 14:38	
Total Radium Calculation	Total Radium	0.349 ± 0.574 (1.24)	pCi/L		10/20/21 17:19	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92562849005</b>	<b>BRGWA-6S</b>					
EPA 9315	Radium-226	0.943 ± 0.340 (0.300) C:104% T:NA	pCi/L		10/08/21 07:36	
EPA 9320	Radium-228	-0.0295 ± 0.364 (0.860) C:65% T:82%	pCi/L		10/07/21 14:39	
Total Radium Calculation	Total Radium	0.943 ± 0.704 (1.16)	pCi/L		10/20/21 17:19	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

**Sample: BRGWA-5S**      **Lab ID: 92562849001**      Collected: 09/21/21 16:28      Received: 09/22/21 17:08      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.298 ± 0.226 (0.394)</b> <b>C:94% T:NA</b>	pCi/L	10/08/21 08:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.562 ± 0.557 (1.16)</b> <b>C:61% T:84%</b>	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.860 ± 0.783 (1.55)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

**Sample: BRGWA-5I**      **Lab ID: 92562849002**      Collected: 09/21/21 12:30      Received: 09/22/21 17:08      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.123 ± 0.179 (0.391)</b> <b>C:98% T:NA</b>	pCi/L	10/08/21 07:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0589 ± 0.389 (0.891)</b> <b>C:62% T:91%</b>	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.182 ± 0.568 (1.28)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-2S</b> <b>Lab ID: 92562849003</b> Collected: 09/22/21 11:25      Received: 09/23/21 10:47      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.172 ± 0.153 (0.262)</b> <b>C:99% T:NA</b>	pCi/L	10/08/21 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.16 ± 0.614 (1.11)</b> <b>C:59% T:83%</b>	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.33 ± 0.767 (1.37)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-2I</b> <b>Lab ID: 92562849004</b> Collected: 09/22/21 10:21      Received: 09/23/21 10:47      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.115 ± 0.155 (0.326)</b> <b>C:100% T:NA</b>	pCi/L	10/08/21 07:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.234 ± 0.419 (0.917)</b> <b>C:62% T:83%</b>	pCi/L	10/07/21 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.349 ± 0.574 (1.24)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-6S</b> <b>Lab ID: 92562849005</b> Collected: 09/22/21 11:55      Received: 09/23/21 10:47      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.943 ± 0.340 (0.300)</b> <b>C:104% T:NA</b>	pCi/L	10/08/21 07:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.0295 ± 0.364 (0.860)</b> <b>C:65% T:82%</b>	pCi/L	10/07/21 14:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.943 ± 0.704 (1.16)</b>	pCi/L	10/20/21 17:19	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

QC Batch: 466410

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92562849001, 92562849002, 92562849003, 92562849004, 92562849005

METHOD BLANK: 2252279

Matrix: Water

Associated Lab Samples: 92562849001, 92562849002, 92562849003, 92562849004, 92562849005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.420 ± 0.367 (0.738) C:65% T:90%	pCi/L	10/07/21 11:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

QC Batch: 466264

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92562849001, 92562849002, 92562849003, 92562849004, 92562849005

METHOD BLANK: 2251638

Matrix: Water

Associated Lab Samples: 92562849001, 92562849002, 92562849003, 92562849004, 92562849005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.284 ± 0.229 (0.421) C:95% T:NA	pCi/L	10/08/21 08:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

---

### 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.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCDE BACKGROUND RADS  
Pace Project No.: 92562849

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562849001	BRGWA-5S	EPA 9315	466264		
92562849002	BRGWA-5I	EPA 9315	466264		
92562849003	BRGWA-2S	EPA 9315	466264		
92562849004	BRGWA-2I	EPA 9315	466264		
92562849005	BRGWA-6S	EPA 9315	466264		
92562849001	BRGWA-5S	EPA 9320	466410		
92562849002	BRGWA-5I	EPA 9320	466410		
92562849003	BRGWA-2S	EPA 9320	466410		
92562849004	BRGWA-2I	EPA 9320	466410		
92562849005	BRGWA-6S	EPA 9320	466410		
92562849001	BRGWA-5S	Total Radium Calculation	469110		
92562849002	BRGWA-5I	Total Radium Calculation	469110		
92562849003	BRGWA-2S	Total Radium Calculation	469110		
92562849004	BRGWA-2I	Total Radium Calculation	469110		
92562849005	BRGWA-6S	Total Radium Calculation	469110		

### REPORT OF LABORATORY ANALYSIS

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Document Name:  
**Sample Condition Upon Receipt(SCUR)**  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 1 of 2  
 Issuing Authority:  
 Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

**WO# : 92562849**



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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 9/22/14

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: 1.8 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): 1.8

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 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 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:	<u>W</u>		
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: \_\_\_\_\_



Document Name:  
 Sample Condition Upon Receipt(SCUR)  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolinas Quality Office

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

Project #

**WO# : 92562849**

PM: NMG

Due Date: 10/13/21

CLIENT : GA-GA Power

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

\*\*Bottom half of box is to list number of bottles

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt	Client Name: <u>GA Power</u>	Project #:
-------------------------------	---------------------------------	------------

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

Custody Seal Present?  Yes  No      Seals Intact?  Yes  No

Date/Initials Person Examining Contents: mt 9/23/21

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: 2.8      Correction Factor: Add/Subtract (°C) +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): 2.8

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 checked="" type="checkbox"/> No <input 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: <u>WT</u>		
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: \_\_\_\_\_

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

**Project #**

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

**\*\*Bottom half of box is to list number of bottles**

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



# Quality Control Sample Performance Assessment

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JJY  
Date: 10/5/2021  
Worklist: 62912  
Matrix: DW



Method Blank Assessment	
MB Sample ID	2251638
MB Concentration:	0.284
M/B Counting Uncertainty:	0.225
MB MDC:	0.421
MB Numerical Performance Indicator:	2.47
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS62912	LCS62912
Count Date:	10/8/2021	10/8/2021
Spike ID:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.513
Target Conc. (pCi/L, g, F):	4.762	4.681
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	3.783	4.467
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.618	0.667
Numerical Performance Indicator:	-3.09	-0.63
Percent Recovery:	79.43%	95.43%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
	LCS62912	LCS62912
Sample ID:	92561675014	92561675014DUP
Duplicate Sample ID:	92561675014DUP	92561675014DUP
Sample Result (pCi/L, g, F):	3.783	0.346
Sample Result Counting Uncertainty (pCi/L, g, F):	0.618	0.147
Sample Duplicate Result (pCi/L, g, F):	4.467	0.199
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.667	0.131
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	-1.476	1.469
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	18.29%	54.06%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Fail***
% RPD Limit:	25%	25%

\*\*\* Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

\*\*\*Batch must be re-prepared due to unacceptable precision N/A

LAM 10/20/21

*Handwritten signature/initials*

LAM 10/20/21

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (Calculated): MSD Spike Uncertainty (Calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:



# Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-228  
Analyst: VAL  
Date: 10/5/2021  
Worklist: 62922  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2252279
MB concentration:	0.420
MB 2 Sigma CSU:	0.367
MB MDC:	0.738
MB Numerical Performance Indicator:	2.25
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

LCS/D (Y or N)?	Y	
	LCS62922	LCS062922
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.936	37.936
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.810	0.810
Target Conc. (pCi/L, g, F):	4.684	4.683
Uncertainty (Calculated):	0.229	0.229
Result (pCi/L, g, F):	4.993	5.479
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.158	1.201
Numerical Performance Indicator:	0.51	1.27
Percent Recovery:	106.61%	116.98%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS62922
Duplicate Sample I.D.:	LCS062922
Sample Result (pCi/L, g, F):	4.993
Sample Duplicate Result (pCi/L, g, F):	1.158
Sample Result 2 Sigma CSU (pCi/L, g, F):	5.479
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.201
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.571
Duplicate (Percent Recoveries) Duplicate RPD:	9.28%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Handwritten signature/initials*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate (Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

*Handwritten note: Manual*

October 22, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 22, 2021 and September 23, 2021. 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 - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

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### **Pace Analytical Services Charlotte**

9800 Kincey Ave. Ste 100, Huntersville, NC 28078  
Louisiana/NELAP Certification # LA170028  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Virginia/VELAP Certification #: 460221

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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 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: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92562855001	BRGWA-12S	Water	09/21/21 10:45	09/22/21 17:08
92562855002	BRGWA-12I	Water	09/21/21 13:50	09/22/21 17:08
92562855003	BRGWA-23S	Water	09/22/21 10:10	09/23/21 10:47

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92562855001	BRGWA-12S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562855002	BRGWA-12I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562855003	BRGWA-23S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

### SUMMARY OF DETECTION

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92562855001</b>	<b>BRGWA-12S</b>					
	Performed by	CUSTOME			09/23/21 09:40	
		R				
	pH	5.87	Std. Units		09/23/21 09:40	
EPA 6010D	Calcium	5.4	mg/L	1.0	09/30/21 20:24	
EPA 6020B	Barium	0.060	mg/L	0.0050	10/01/21 14:14	
EPA 6020B	Chromium	0.0024J	mg/L	0.0050	09/30/21 19:18	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:25	B
SM 2540C-2011	Total Dissolved Solids	56.0	mg/L	10.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	09/24/21 18:31	
EPA 300.0 Rev 2.1 1993	Sulfate	0.51J	mg/L	1.0	09/24/21 18:31	
<b>92562855002</b>	<b>BRGWA-12I</b>					
	Performed by	CUSTOME			09/23/21 09:40	
		R				
	pH	6.53	Std. Units		09/23/21 09:40	
EPA 6010D	Calcium	16.4	mg/L	1.0	09/30/21 20:29	
EPA 6020B	Antimony	0.017	mg/L	0.0030	10/01/21 14:20	
EPA 6020B	Barium	0.074	mg/L	0.0050	10/01/21 14:20	
EPA 6020B	Chromium	0.0023J	mg/L	0.0050	09/30/21 19:35	
EPA 6020B	Lithium	0.0037J	mg/L	0.030	09/30/21 19:35	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:36	B
SM 2540C-2011	Total Dissolved Solids	117	mg/L	10.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	2.1	mg/L	1.0	09/24/21 19:19	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.10	09/24/21 19:19	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	09/24/21 19:19	
<b>92562855003</b>	<b>BRGWA-23S</b>					
	Performed by	CUSTOME			09/23/21 13:00	
		R				
	pH	5.72	Std. Units		09/23/21 13:00	
EPA 6010D	Calcium	9.2	mg/L	1.0	09/30/21 20:33	
EPA 6020B	Barium	0.070	mg/L	0.0050	10/01/21 14:37	
EPA 6020B	Boron	0.047	mg/L	0.040	10/01/21 14:37	
EPA 6020B	Chromium	0.0026J	mg/L	0.0050	10/01/21 14:37	
EPA 6020B	Lithium	0.0074J	mg/L	0.030	10/01/21 14:37	
EPA 6020B	Selenium	0.0016J	mg/L	0.0050	10/01/21 14:37	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:54	B
SM 2540C-2011	Total Dissolved Solids	128	mg/L	10.0	09/28/21 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	2.8	mg/L	1.0	09/24/21 20:38	
EPA 300.0 Rev 2.1 1993	Fluoride	0.069J	mg/L	0.10	09/24/21 20:38	
EPA 300.0 Rev 2.1 1993	Sulfate	34.6	mg/L	1.0	09/24/21 20:38	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

Sample: BRGWA-12S		Lab ID: 92562855001		Collected: 09/21/21 10:45		Received: 09/22/21 17:08		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 09:40		
pH	5.87	Std. Units			1		09/23/21 09:40		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	5.4	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 20:24	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	09/30/21 19:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:18	7440-38-2	
Barium	0.060	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 19:18	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 19:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 19:18	7440-43-9	
Chromium	0.0024J	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 19:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 19:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 19:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 19:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 19:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 19:18	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00010J	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:25	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	56.0	mg/L	10.0	10.0	1		09/27/21 10:20		
<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	0.60	1		09/24/21 18:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/21 18:31	16984-48-8	
Sulfate	0.51J	mg/L	1.0	0.50	1		09/24/21 18:31	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

Sample: BRGWA-12I		Lab ID: 92562855002		Collected: 09/21/21 13:50		Received: 09/22/21 17:08		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 09:40		
pH	<b>6.53</b>	Std. Units			1		09/23/21 09:40		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>16.4</b>	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 20:29	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.017</b>	mg/L	0.0030	0.00078	1	09/30/21 10:25	10/01/21 14:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:35	7440-38-2	
Barium	<b>0.074</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:20	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 19:35	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 19:35	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 19:35	7440-43-9	
Chromium	<b>0.0023J</b>	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:35	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 19:35	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 19:35	7439-92-1	
Lithium	<b>0.0037J</b>	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 19:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 19:35	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 19:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 19:35	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:36	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>117</b>	mg/L	10.0	10.0	1		09/27/21 10:20		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>2.1</b>	mg/L	1.0	0.60	1		09/24/21 19:19	16887-00-6	
Fluoride	<b>0.071J</b>	mg/L	0.10	0.050	1		09/24/21 19:19	16984-48-8	
Sulfate	<b>1.7</b>	mg/L	1.0	0.50	1		09/24/21 19:19	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

Sample: <b>BRGWA-23S</b>		Lab ID: <b>92562855003</b>		Collected: 09/22/21 10:10		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 13:00		
pH	<b>5.72</b>	Std. Units			1		09/23/21 13:00		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>9.2</b>	mg/L	1.0	0.12	1	09/30/21 10:15	09/30/21 20:33	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	10/01/21 14:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	10/01/21 14:37	7440-38-2	
Barium	<b>0.070</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:37	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	10/01/21 14:37	7440-41-7	
Boron	<b>0.047</b>	mg/L	0.040	0.0086	1	09/30/21 10:25	10/01/21 14:37	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	10/01/21 14:37	7440-43-9	
Chromium	<b>0.0026J</b>	mg/L	0.0050	0.0011	1	09/30/21 10:25	10/01/21 14:37	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	10/01/21 14:37	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	10/01/21 14:37	7439-92-1	
Lithium	<b>0.0074J</b>	mg/L	0.030	0.00073	1	09/30/21 10:25	10/01/21 14:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	10/01/21 14:37	7439-98-7	
Selenium	<b>0.0016J</b>	mg/L	0.0050	0.0014	1	09/30/21 10:25	10/01/21 14:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	10/01/21 14:37	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:54	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>128</b>	mg/L	10.0	10.0	1		09/28/21 10:57		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>2.8</b>	mg/L	1.0	0.60	1		09/24/21 20:38	16887-00-6	
Fluoride	<b>0.069J</b>	mg/L	0.10	0.050	1		09/24/21 20:38	16984-48-8	
Sulfate	<b>34.6</b>	mg/L	1.0	0.50	1		09/24/21 20:38	14808-79-8	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

QC Batch: 650016 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92562855001, 92562855002, 92562855003

METHOD BLANK: 3409429 Matrix: Water  
Associated Lab Samples: 92562855001, 92562855002, 92562855003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	09/30/21 18:01	

LABORATORY CONTROL SAMPLE: 3409430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409431 3409432

Parameter	Units	92561637001		3409432		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	72.7	1	1	72.0	73.0	-71	25	75-125	1	20 M1

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

QC Batch: 650022 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92562855001, 92562855002, 92562855003

METHOD BLANK: 3409457 Matrix: Water  
Associated Lab Samples: 92562855001, 92562855002, 92562855003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/30/21 18:26	
Arsenic	mg/L	ND	0.0050	0.0011	09/30/21 18:26	
Barium	mg/L	ND	0.0050	0.00067	09/30/21 18:26	
Beryllium	mg/L	ND	0.00050	0.000054	09/30/21 18:26	
Boron	mg/L	ND	0.040	0.0086	09/30/21 18:26	
Cadmium	mg/L	ND	0.00050	0.00011	09/30/21 18:26	
Chromium	mg/L	ND	0.0050	0.0011	09/30/21 18:26	
Cobalt	mg/L	ND	0.0050	0.00039	09/30/21 18:26	
Lead	mg/L	ND	0.0010	0.00089	09/30/21 18:26	
Lithium	mg/L	ND	0.030	0.00073	09/30/21 18:26	
Molybdenum	mg/L	ND	0.010	0.00074	09/30/21 18:26	
Selenium	mg/L	ND	0.0050	0.0014	09/30/21 18:26	
Thallium	mg/L	ND	0.0010	0.00018	09/30/21 18:26	

LABORATORY CONTROL SAMPLE: 3409458

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	116	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.11	111	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.11	106	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.11	107	80-120	
Molybdenum	mg/L	0.1	0.11	111	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409459 3409460

Parameter	Units	92562820017 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	114	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

Parameter	Units	3409459		3409460		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562820017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.092	0.1	0.1	0.23	0.24	138	152	75-125	6	20	M1	
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20		
Boron	mg/L	ND	1	1	1.1	1.0	108	104	75-125	4	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	99	103	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	109	108	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	108	114	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20		

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

QC Batch:	650957	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92562855001, 92562855002, 92562855003

METHOD BLANK: 3413779 Matrix: Water

Associated Lab Samples: 92562855001, 92562855002, 92562855003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00011J	0.00020	0.000078	10/06/21 12:20	

LABORATORY CONTROL SAMPLE: 3413780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413781 3413782

Parameter	Units	3413781		3413782		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.00010J	0.0025	0.0024	0.0023	92	89	75-125	3	20	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

QC Batch: 649295 Analysis Method: SM 2540C-2011  
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92562855001, 92562855002

METHOD BLANK: 3405734 Matrix: Water  
Associated Lab Samples: 92562855001, 92562855002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/27/21 10:19	

LABORATORY CONTROL SAMPLE: 3405735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3405736

Parameter	Units	92562283002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	174	168	4	10	

SAMPLE DUPLICATE: 3405737

Parameter	Units	92563313004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	985	1080	9	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

QC Batch: 649491	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92562855003

METHOD BLANK: 3406451 Matrix: Water

Associated Lab Samples: 92562855003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/21 10:55	

LABORATORY CONTROL SAMPLE: 3406452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3406453

Parameter	Units	92563313026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	527	536	2	10	

SAMPLE DUPLICATE: 3406454

Parameter	Units	92562857001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	86.0	80.0	7	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

QC Batch: 649204 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: 92562855001, 92562855002, 92562855003

METHOD BLANK: 3405091 Matrix: Water  
Associated Lab Samples: 92562855001, 92562855002, 92562855003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/21 17:59	
Fluoride	mg/L	ND	0.10	0.050	09/24/21 17:59	
Sulfate	mg/L	ND	1.0	0.50	09/24/21 17:59	

LABORATORY CONTROL SAMPLE: 3405092

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	45.5	91	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.1	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405095 3405096

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562974002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	2.7	50	50	49.7	49.4	94	93	90-110	1	10		
Fluoride	mg/L	0.068J	2.5	2.5	2.7	2.6	103	102	90-110	1	10		
Sulfate	mg/L	94.6	50	50	140	141	90	94	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405233 3405234

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562855001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	3.5	50	50	48.5	50.6	90	94	90-110	4	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	95	99	90-110	5	10		
Sulfate	mg/L	0.51J	50	50	48.8	51.3	97	102	90-110	5	10		

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## QUALIFIERS

Project: BRANCH AP-BCD BACKGROUND

Pace Project No.: 92562855

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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

B Analyte was detected in the associated method blank.

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: BRANCH AP-BCD BACKGROUND  
Pace Project No.: 92562855

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562855001	BRGWA-12S				
92562855002	BRGWA-12I				
92562855003	BRGWA-23S				
92562855001	BRGWA-12S	EPA 3010A	650016	EPA 6010D	650179
92562855002	BRGWA-12I	EPA 3010A	650016	EPA 6010D	650179
92562855003	BRGWA-23S	EPA 3010A	650016	EPA 6010D	650179
92562855001	BRGWA-12S	EPA 3005A	650022	EPA 6020B	650181
92562855002	BRGWA-12I	EPA 3005A	650022	EPA 6020B	650181
92562855003	BRGWA-23S	EPA 3005A	650022	EPA 6020B	650181
92562855001	BRGWA-12S	EPA 7470A	650957	EPA 7470A	651107
92562855002	BRGWA-12I	EPA 7470A	650957	EPA 7470A	651107
92562855003	BRGWA-23S	EPA 7470A	650957	EPA 7470A	651107
92562855001	BRGWA-12S	SM 2540C-2011	649295		
92562855002	BRGWA-12I	SM 2540C-2011	649295		
92562855003	BRGWA-23S	SM 2540C-2011	649491		
92562855001	BRGWA-12S	EPA 300.0 Rev 2.1 1993	649204		
92562855002	BRGWA-12I	EPA 300.0 Rev 2.1 1993	649204		
92562855003	BRGWA-23S	EPA 300.0 Rev 2.1 1993	649204		

### REPORT OF LABORATORY ANALYSIS

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**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name:

*GA POWER*

Project #:

**WO# : 92562855**



Courier:  Commercial  Fed Ex  Pace  UPS  USPS  Other:  Client

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: *9/22/14*

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen? *CO4*

Yes  No  N/A

Thermometer:  #R Gun ID: *083* Type of Ice:  Wet  Blue  None

Cooler Temp: *1.8* 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): *1.8*

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

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

Yes  No

			Comments/Discrepancy:
Chain of Custody Present?	<input 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: <i>W</i>			
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: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document No.:  
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
Page 2 of 2

Issuing Authority:  
Pace Carolinas Quality Office

\*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

Project #

**WO# : 92562855**

PM: NMG

Due Date: 10/06/21

CLIENT: GA-GA Power

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)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG8U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)



**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name:

GA Power

Project #:

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

Custody Seal Present?  Yes  No    Seals Intact?  Yes  No

Date/Initials Person Examining Contents: MT 9/23/21

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: 2.8    Correction Factor: Add/Subtract (°C) ±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): 2.8

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 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 checked="" type="checkbox"/> No <input 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: <u>WT</u>	
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 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: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020  
Page 2 of 2

Document No.:  
F-CAR-CS-033-Rev.07

Issuing Authority:  
Pace Carolinas Quality Office

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

Project #

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

\*\*Bottom half of box is to list number of bottles

Project #
-----------

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.





October 22, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

Dear Joju Abraham:

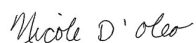
Enclosed are the analytical results for sample(s) received by the laboratory between September 22, 2021 and September 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where 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 - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
Louisiana/NELAP Certification # LA170028  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Virginia/VELAP Certification #: 460221

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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 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: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92562860001	BRGWA-5S	Water	09/21/21 16:28	09/22/21 17:08
92562860002	BRGWA-5I	Water	09/21/21 12:30	09/22/21 17:08
92562860003	BRGWA-2S	Water	09/22/21 11:25	09/23/21 10:47
92562860004	BRGWA-2I	Water	09/22/21 10:21	09/23/21 10:47
92562860005	BRGWA-6S	Water	09/22/21 11:55	09/23/21 10:47

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92562860001	BRGWA-5S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562860002	BRGWA-5I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562860003	BRGWA-2S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562860004	BRGWA-2I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562860005	BRGWA-6S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92562860001</b>	<b>BRGWA-5S</b>					
	Performed by	CUSTOME			09/23/21 09:42	
		R				
	pH	6.36	Std. Units		09/23/21 09:42	
EPA 6010D	Calcium	19.1	mg/L	1.0	10/01/21 17:58	
EPA 6020B	Barium	0.038	mg/L	0.0050	10/01/21 14:26	
EPA 6020B	Chromium	0.0044J	mg/L	0.0050	09/30/21 19:41	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:38	B
SM 2540C-2011	Total Dissolved Solids	104	mg/L	10.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	3.2	mg/L	1.0	09/24/21 19:35	
EPA 300.0 Rev 2.1 1993	Fluoride	0.056J	mg/L	0.10	09/24/21 19:35	
<b>92562860002</b>	<b>BRGWA-5I</b>					
	Performed by	CUSTOME			09/23/21 09:43	
		R				
	pH	6.32	Std. Units		09/23/21 09:43	
EPA 6010D	Calcium	14.1	mg/L	1.0	10/01/21 18:32	
EPA 6020B	Barium	0.025	mg/L	0.0050	10/01/21 14:31	
EPA 6020B	Chromium	0.0064	mg/L	0.0050	09/30/21 19:46	
EPA 6020B	Cobalt	0.00071J	mg/L	0.0050	09/30/21 19:46	
EPA 6020B	Lithium	0.0012J	mg/L	0.030	09/30/21 19:46	
EPA 6020B	Molybdenum	0.0020J	mg/L	0.010	09/30/21 19:46	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:41	B
SM 2540C-2011	Total Dissolved Solids	108	mg/L	10.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	3.2	mg/L	1.0	09/24/21 19:51	
EPA 300.0 Rev 2.1 1993	Sulfate	2.3	mg/L	1.0	09/24/21 19:51	
<b>92562860003</b>	<b>BRGWA-2S</b>					
	Performed by	CUSTOME			09/23/21 13:03	
		R				
	pH	6.06	Std. Units		09/23/21 13:03	
EPA 6010D	Calcium	4.3	mg/L	1.0	10/01/21 18:51	
EPA 6020B	Barium	0.0097	mg/L	0.0050	10/01/21 14:43	
EPA 6020B	Chromium	0.0091	mg/L	0.0050	09/30/21 19:58	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:56	B
SM 2540C-2011	Total Dissolved Solids	66.0	mg/L	10.0	09/28/21 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	1.5	mg/L	1.0	09/24/21 20:54	
<b>92562860004</b>	<b>BRGWA-2I</b>					
	Performed by	CUSTOME			09/23/21 13:03	
		R				
	pH	6.78	Std. Units		09/23/21 13:03	
EPA 6010D	Calcium	15.9	mg/L	1.0	10/01/21 18:56	
EPA 6020B	Barium	0.0075	mg/L	0.0050	10/01/21 14:48	
EPA 6020B	Cobalt	0.0015J	mg/L	0.0050	09/30/21 20:04	
EPA 6020B	Lithium	0.021J	mg/L	0.030	09/30/21 20:04	
EPA 6020B	Molybdenum	0.0012J	mg/L	0.010	09/30/21 20:04	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 12:59	B
SM 2540C-2011	Total Dissolved Solids	129	mg/L	10.0	09/28/21 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	1.7	mg/L	1.0	09/24/21 21:10	
EPA 300.0 Rev 2.1 1993	Sulfate	5.2	mg/L	1.0	09/24/21 21:10	

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92562860005</b>	<b>BRGWA-6S</b>					
	Performed by	CUSTOME			09/23/21 13:03	
		R				
	pH	6.48	Std. Units		09/23/21 13:03	
EPA 6010D	Calcium	4.1	mg/L	1.0	10/01/21 19:01	
EPA 6020B	Barium	0.014	mg/L	0.0050	10/01/21 14:54	
EPA 6020B	Chromium	0.014	mg/L	0.0050	09/30/21 20:09	
EPA 6020B	Cobalt	0.00078J	mg/L	0.0050	09/30/21 20:09	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	09/30/21 20:09	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:01	B
SM 2540C-2011	Total Dissolved Solids	62.0	mg/L	10.0	09/28/21 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	2.1	mg/L	1.0	09/24/21 21:26	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

Sample: <b>BRGWA-5S</b> Lab ID: <b>92562860001</b> Collected: 09/21/21 16:28      Received: 09/22/21 17:08      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 09:42		
pH	<b>6.36</b>	Std. Units			1		09/23/21 09:42		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>19.1</b>	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 17:58	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	09/30/21 19:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:41	7440-38-2	
Barium	<b>0.038</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 19:41	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 19:41	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 19:41	7440-43-9	
Chromium	<b>0.0044J</b>	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:41	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 19:41	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 19:41	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 19:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 19:41	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 19:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 19:41	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:38	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>104</b>	mg/L	10.0	10.0	1		09/27/21 10:20		
<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	0.60	1		09/24/21 19:35	16887-00-6	
Fluoride	<b>0.056J</b>	mg/L	0.10	0.050	1		09/24/21 19:35	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/24/21 19:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

Sample: BRGWA-5I		Lab ID: 92562860002		Collected: 09/21/21 12:30		Received: 09/22/21 17:08		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 09:43		
pH	<b>6.32</b>	Std. Units			1		09/23/21 09:43		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>14.1</b>	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 18:32	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	09/30/21 19:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:46	7440-38-2	
Barium	<b>0.025</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:31	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 19:46	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 19:46	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 19:46	7440-43-9	
Chromium	<b>0.0064</b>	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:46	7440-47-3	
Cobalt	<b>0.00071J</b>	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 19:46	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 19:46	7439-92-1	
Lithium	<b>0.0012J</b>	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 19:46	7439-93-2	
Molybdenum	<b>0.0020J</b>	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 19:46	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 19:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 19:46	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:41	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>108</b>	mg/L	10.0	10.0	1		09/27/21 10:20		
<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	0.60	1		09/24/21 19:51	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/21 19:51	16984-48-8	
Sulfate	<b>2.3</b>	mg/L	1.0	0.50	1		09/24/21 19:51	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

Sample: <b>BRGWA-2S</b>		Lab ID: <b>92562860003</b>		Collected: 09/22/21 11:25		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 13:03		
pH	<b>6.06</b>	Std. Units			1		09/23/21 13:03		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>4.3</b>	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 18:51	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	09/30/21 19:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:58	7440-38-2	
Barium	<b>0.0097</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:43	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 19:58	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 19:58	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 19:58	7440-43-9	
Chromium	<b>0.0091</b>	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 19:58	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 19:58	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 19:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 19:58	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 19:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 19:58	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:56	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>66.0</b>	mg/L	10.0	10.0	1		09/28/21 10:57		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>1.5</b>	mg/L	1.0	0.60	1		09/24/21 20:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/21 20:54	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/24/21 20:54	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

Sample: BRGWA-2I		Lab ID: 92562860004		Collected: 09/22/21 10:21		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 13:03		
pH	<b>6.78</b>	Std. Units			1		09/23/21 13:03		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>15.9</b>	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 18:56	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	09/30/21 20:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:04	7440-38-2	
Barium	<b>0.0075</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:48	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:04	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:04	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:04	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:04	7440-47-3	
Cobalt	<b>0.0015J</b>	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:04	7439-92-1	
Lithium	<b>0.021J</b>	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:04	7439-93-2	
Molybdenum	<b>0.0012J</b>	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:04	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:04	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 12:59	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>129</b>	mg/L	10.0	10.0	1		09/28/21 10:57		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>1.7</b>	mg/L	1.0	0.60	1		09/24/21 21:10	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/21 21:10	16984-48-8	
Sulfate	<b>5.2</b>	mg/L	1.0	0.50	1		09/24/21 21:10	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

Sample: <b>BRGWA-6S</b>		Lab ID: <b>92562860005</b>		Collected: 09/22/21 11:55		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/23/21 13:03		
pH	<b>6.48</b>	Std. Units			1		09/23/21 13:03		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>4.1</b>	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:01	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	09/30/21 10:25	09/30/21 20:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:09	7440-38-2	
Barium	<b>0.014</b>	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 14:54	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:09	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:09	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:09	7440-43-9	
Chromium	<b>0.014</b>	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:09	7440-47-3	
Cobalt	<b>0.00078J</b>	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:09	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:09	7439-92-1	
Lithium	<b>0.0035J</b>	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:09	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:09	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:01	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>62.0</b>	mg/L	10.0	10.0	1		09/28/21 10:57		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>2.1</b>	mg/L	1.0	0.60	1		09/24/21 21:26	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/21 21:26	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/24/21 21:26	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

QC Batch: 650399 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

METHOD BLANK: 3411275 Matrix: Water  
Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	10/01/21 17:49	

LABORATORY CONTROL SAMPLE: 3411276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3411277 3411278

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		92562860002	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	mg/L	14.1	1	1	15.1	15.0	105	93	75-125	1	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND  
 Pace Project No.: 92562860

QC Batch: 650022 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

METHOD BLANK: 3409457 Matrix: Water  
 Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/30/21 18:26	
Arsenic	mg/L	ND	0.0050	0.0011	09/30/21 18:26	
Barium	mg/L	ND	0.0050	0.00067	09/30/21 18:26	
Beryllium	mg/L	ND	0.00050	0.000054	09/30/21 18:26	
Boron	mg/L	ND	0.040	0.0086	09/30/21 18:26	
Cadmium	mg/L	ND	0.00050	0.00011	09/30/21 18:26	
Chromium	mg/L	ND	0.0050	0.0011	09/30/21 18:26	
Cobalt	mg/L	ND	0.0050	0.00039	09/30/21 18:26	
Lead	mg/L	ND	0.0010	0.00089	09/30/21 18:26	
Lithium	mg/L	ND	0.030	0.00073	09/30/21 18:26	
Molybdenum	mg/L	ND	0.010	0.00074	09/30/21 18:26	
Selenium	mg/L	ND	0.0050	0.0014	09/30/21 18:26	
Thallium	mg/L	ND	0.0010	0.00018	09/30/21 18:26	

LABORATORY CONTROL SAMPLE: 3409458

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	116	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.11	111	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.11	106	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.11	107	80-120	
Molybdenum	mg/L	0.1	0.11	111	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409459 3409460

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562820017	Spike Conc.	Spike Conc.	Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	114	75-125	5	20
Arsenic	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

Parameter	Units	3409459		3409460		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562820017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.092	0.1	0.1	0.23	0.24	138	152	75-125	6	20	M1	
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20		
Boron	mg/L	ND	1	1	1.1	1.0	108	104	75-125	4	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	99	103	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	109	108	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	108	114	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

QC Batch: 650957

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

METHOD BLANK: 3413779

Matrix: Water

Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00011J	0.00020	0.000078	10/06/21 12:20	

LABORATORY CONTROL SAMPLE: 3413780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413781 3413782

Parameter	Units	92562855001		3413782		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.00010J	0.0025	0.0024	0.0023	92	89	75-125	3	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

QC Batch: 649295

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92562860001, 92562860002

METHOD BLANK: 3405734

Matrix: Water

Associated Lab Samples: 92562860001, 92562860002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/27/21 10:19	

LABORATORY CONTROL SAMPLE: 3405735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3405736

Parameter	Units	92562283002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	174	168	4	10	

SAMPLE DUPLICATE: 3405737

Parameter	Units	92563313004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	985	1080	9	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

QC Batch:	649491	Analysis Method:	SM 2540C-2011
QC Batch Method:	SM 2540C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92562860003, 92562860004, 92562860005

METHOD BLANK: 3406451 Matrix: Water

Associated Lab Samples: 92562860003, 92562860004, 92562860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/21 10:55	

LABORATORY CONTROL SAMPLE: 3406452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3406453

Parameter	Units	92563313026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	527	536	2	10	

SAMPLE DUPLICATE: 3406454

Parameter	Units	92562857001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	86.0	80.0	7	10	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCDE BACKGROUND  
Pace Project No.: 92562860

QC Batch: 649204 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: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

METHOD BLANK: 3405091 Matrix: Water  
Associated Lab Samples: 92562860001, 92562860002, 92562860003, 92562860004, 92562860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/21 17:59	
Fluoride	mg/L	ND	0.10	0.050	09/24/21 17:59	
Sulfate	mg/L	ND	1.0	0.50	09/24/21 17:59	

LABORATORY CONTROL SAMPLE: 3405092

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	45.5	91	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.1	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405095 3405096

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562974002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	2.7	50	50	49.7	49.4	94	93	90-110	1	10		
Fluoride	mg/L	0.068J	2.5	2.5	2.7	2.6	103	102	90-110	1	10		
Sulfate	mg/L	94.6	50	50	140	141	90	94	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405233 3405234

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562855001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	3.5	50	50	48.5	50.6	90	94	90-110	4	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	95	99	90-110	5	10		
Sulfate	mg/L	0.51J	50	50	48.8	51.3	97	102	90-110	5	10		

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

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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

B Analyte was detected in the associated method blank.

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: BRANCH AP-BCDE BACKGROUND

Pace Project No.: 92562860

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562860001	BRGWA-5S				
92562860002	BRGWA-5I				
92562860003	BRGWA-2S				
92562860004	BRGWA-2I				
92562860005	BRGWA-6S				
92562860001	BRGWA-5S	EPA 3010A	650399	EPA 6010D	650462
92562860002	BRGWA-5I	EPA 3010A	650399	EPA 6010D	650462
92562860003	BRGWA-2S	EPA 3010A	650399	EPA 6010D	650462
92562860004	BRGWA-2I	EPA 3010A	650399	EPA 6010D	650462
92562860005	BRGWA-6S	EPA 3010A	650399	EPA 6010D	650462
92562860001	BRGWA-5S	EPA 3005A	650022	EPA 6020B	650181
92562860002	BRGWA-5I	EPA 3005A	650022	EPA 6020B	650181
92562860003	BRGWA-2S	EPA 3005A	650022	EPA 6020B	650181
92562860004	BRGWA-2I	EPA 3005A	650022	EPA 6020B	650181
92562860005	BRGWA-6S	EPA 3005A	650022	EPA 6020B	650181
92562860001	BRGWA-5S	EPA 7470A	650957	EPA 7470A	651107
92562860002	BRGWA-5I	EPA 7470A	650957	EPA 7470A	651107
92562860003	BRGWA-2S	EPA 7470A	650957	EPA 7470A	651107
92562860004	BRGWA-2I	EPA 7470A	650957	EPA 7470A	651107
92562860005	BRGWA-6S	EPA 7470A	650957	EPA 7470A	651107
92562860001	BRGWA-5S	SM 2540C-2011	649295		
92562860002	BRGWA-5I	SM 2540C-2011	649295		
92562860003	BRGWA-2S	SM 2540C-2011	649491		
92562860004	BRGWA-2I	SM 2540C-2011	649491		
92562860005	BRGWA-6S	SM 2540C-2011	649491		
92562860001	BRGWA-5S	EPA 300.0 Rev 2.1 1993	649204		
92562860002	BRGWA-5I	EPA 300.0 Rev 2.1 1993	649204		
92562860003	BRGWA-2S	EPA 300.0 Rev 2.1 1993	649204		
92562860004	BRGWA-2I	EPA 300.0 Rev 2.1 1993	649204		
92562860005	BRGWA-6S	EPA 300.0 Rev 2.1 1993	649204		

### REPORT OF LABORATORY ANALYSIS

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	Document Name: <b>Sample Condition Upon Receipt(SCUR)</b>	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

**WO# : 92562860**

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



Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 9/22/14

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:  HR Gun ID: 083 Type of Ice:  Wet  Blue  None

Cooler Temp: 1.8 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): 1.8

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

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

	Comments/Discrepancy:
Chain of Custody Present? <input 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: <u>W</u>	
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: \_\_\_\_\_



Document Name:  
 Sample Condition Upon Receipt(SCUR)  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolinas Quality Office

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

Project #

**WO# : 92562860**

PM: NMG

Due Date: 10/06/21

CLIENT: GA-GA Power

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

\*\*Bottom half of box is to list number of bottles

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-YPH/Gas kit (N/A)	SP2T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3.9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name:

GA Power

Project #:

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

Custody Seal Present?  Yes  No    Seals Intact?  Yes  No

Date/Initials Person Examining Contents: mt 9/23/21

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: 2.8    Correction Factor: Add/Subtract (°C) +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): 2.8

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 checked="" type="checkbox"/> No <input 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:	<u>WT</u>		
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: \_\_\_\_\_



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

**Project #**

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

**\*\*Bottom half of box is to list number of bottles**

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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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BPIN

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<b>pH Adjustment Log for Preserved Samples</b>						
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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



# 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: Georgia Power - Coal Combustion Residuals  
 Company: 1100 Milledgeville Rd  
 Address: Milledgeville, GA 31061  
 Email: jabraham@southernco.com  
 Phone: (404) 506-7239  
 Requested Due Date: 10 Day TAT

Section B  
 Required Project Information: Report To: Jibr Abraham  
 Copy To: Golder  
 Project Name: Plant Branch AP-QC/DIE  
 Project #: 16625421  
 Background

Section C  
 Invoice Information: Attention: sscservices@southernco.com  
 Company Name  
 Address  
 Page Queue  
 Page Project Manager: Kevin Heming  
 Page Profile #

Regulatory Agency  
 State / Location  
 GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives					Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	PH	SAMPLE CONDITIONS			
								Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate					Na2S2O3	Methanol	Other	App III/IV Total Metals
1	BRGWA-2S	G	G	9/22/2021	11:25		5	2	3							PH = 6.06				
2	BRGWA-2I	G	G	9/22/2021	10:21		5	2	3							PH = 6.78				
3	BRGWA-5S	WT	G	9/22/2021	11:55		5	2	3							PH = 6.48				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	TEMP in C		Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)						
		Jibr Abraham		9-23-21	08:50	Mike Fowler		9/23/2021	10:01	2.8		Y	N	Y						

DATE Signed: 9-23-21

November 19, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 23, 2021 and September 29, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563208001	BRGWC-45	Water	09/23/21 12:15	09/23/21 17:10
92563208002	BRGWC-47	Water	09/23/21 13:35	09/23/21 17:10
92563208003	BRGWC-50	Water	09/27/21 13:05	09/28/21 10:18
92563208004	DUP-2	Water	09/27/21 00:00	09/28/21 10:18
92563208005	BRGWC-25I	Water	09/28/21 11:26	09/29/21 11:57
92563208006	BRGWC-27I	Water	09/28/21 14:30	09/29/21 11:57
92563208007	BRGWC-29I	Water	09/28/21 12:51	09/29/21 11:57
92563208008	BRGWC-30I	Water	09/28/21 16:30	09/29/21 11:57
92563208009	BRGWC-32S	Water	09/28/21 16:40	09/29/21 11:57
92563208010	BRGWC-52I	Water	09/28/21 16:16	09/29/21 11:57
92563208011	EB-2	Water	09/28/21 14:50	09/29/21 11:57
92563208012	FB-2	Water	09/28/21 13:15	09/29/21 11:57
92563208013	DUP-3	Water	09/28/21 00:00	09/29/21 11:57
92563208014	FB-3	Water	09/28/21 16:15	09/29/21 11:57
92563208015	EB-3	Water	09/28/21 16:40	09/29/21 11:57

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563208001	BRGWC-45	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208002	BRGWC-47	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208003	BRGWC-50	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208004	DUP-2	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208005	BRGWC-25I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208006	BRGWC-27I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208007	BRGWC-29I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92563208008	BRGWC-30I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92563208009	BRGWC-32S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208010	BRGWC-52I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208011	EB-2	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208012	FB-2	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563208013	DUP-3	EPA 9315	JJY	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563208014	FB-3	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563208015	EB-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563208001</b>	<b>BRGWC-45</b>					
EPA 9315	Radium-226	-0.158 ± 0.199 (0.656) C:98% T:NA	pCi/L		10/27/21 08:50	
EPA 9320	Radium-228	0.619U ± 0.461 (0.904) C:63% T:90%	pCi/L		10/07/21 14:39	
Total Radium Calculation	Total Radium	0.619 ± 0.660 (1.56)	pCi/L		10/28/21 17:14	
<b>92563208002</b>	<b>BRGWC-47</b>					
EPA 9315	Radium-226	0.238 ± 0.229 (0.434) C:98% T:NA	pCi/L		10/27/21 08:50	
EPA 9320	Radium-228	0.289U ± 0.421 (0.906) C:61% T:89%	pCi/L		10/07/21 14:39	
Total Radium Calculation	Total Radium	0.527 ± 0.650 (1.34)	pCi/L		10/28/21 17:14	
<b>92563208003</b>	<b>BRGWC-50</b>					
EPA 9315	Radium-226	0.310 ± 0.148 (0.168) C:74% T:NA	pCi/L		11/11/21 09:31	
EPA 9320	Radium-228	1.76 ± 0.588 (0.821) C:75% T:84%	pCi/L		11/02/21 14:18	
Total Radium Calculation	Total Radium	2.07 ± 0.736 (0.989)	pCi/L		11/16/21 17:54	
<b>92563208004</b>	<b>DUP-2</b>					
EPA 9315	Radium-226	0.474 ± 0.174 (0.170) C:88% T:NA	pCi/L		11/11/21 09:31	
EPA 9320	Radium-228	2.91 ± 0.777 (0.855) C:71% T:90%	pCi/L		11/02/21 14:18	
Total Radium Calculation	Total Radium	3.38 ± 0.951 (1.03)	pCi/L		11/16/21 17:54	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563208005</b>	<b>BRGWC-25I</b>					
EPA 9315	Radium-226	0.187 ± 0.111 (0.150)	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	C:86% T:NA 4.25 ± 1.03 (0.940)	pCi/L		11/02/21 14:18	
Total Radium Calculation	Total Radium	C:71% T:81% 4.44 ± 1.14 (1.09)	pCi/L		11/16/21 17:54	
<b>92563208006</b>	<b>BRGWC-27I</b>					
EPA 9315	Radium-226	0.165 ± 0.108 (0.168)	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	C:86% T:NA 3.41 ± 0.866 (0.841)	pCi/L		11/02/21 14:19	
Total Radium Calculation	Total Radium	C:75% T:80% 3.58 ± 0.974 (1.01)	pCi/L		11/16/21 17:54	
<b>92563208007</b>	<b>BRGWC-29I</b>					
EPA 9315	Radium-226	0.105 ± 0.0982 (0.184)	pCi/L		11/11/21 09:31	
EPA 9320	Radium-228	C:87% T:NA 1.38 ± 0.560 (0.902)	pCi/L		11/02/21 14:20	
Total Radium Calculation	Total Radium	C:73% T:84% 1.49 ± 0.658 (1.09)	pCi/L		11/11/21 16:49	
<b>92563208008</b>	<b>BRGWC-30I</b>					
EPA 9315	Radium-226	0.174 ± 0.111 (0.165)	pCi/L		11/11/21 09:31	
EPA 9320	Radium-228	C:83% T:NA 0.575 ± 0.411 (0.799)	pCi/L		11/02/21 14:20	
Total Radium Calculation	Total Radium	C:68% T:90% 0.749 ± 0.522 (0.964)	pCi/L		11/11/21 16:49	

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563208009</b>	<b>BRGWC-32S</b>					
EPA 9315	Radium-226	0.125 ± 0.0927 (0.152) C:93% T:NA	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	0.822 ± 0.451 (0.817) C:73% T:83%	pCi/L		11/02/21 14:20	
Total Radium Calculation	Total Radium	0.947 ± 0.544 (0.969)	pCi/L		11/16/21 17:54	
<b>92563208010</b>	<b>BRGWC-52I</b>					
EPA 9315	Radium-226	0.530 ± 0.194 (0.193) C:82% T:NA	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	2.75 ± 0.792 (0.977) C:70% T:84%	pCi/L		11/02/21 14:20	
Total Radium Calculation	Total Radium	3.28 ± 0.986 (1.17)	pCi/L		11/16/21 17:54	
<b>92563208011</b>	<b>EB-2</b>					
EPA 9315	Radium-226	0.212 ± 0.161 (0.308) C:87% T:NA	pCi/L		11/12/21 09:59	
EPA 9320	Radium-228	0.369 ± 0.458 (0.972) C:68% T:80%	pCi/L		11/02/21 14:20	
Total Radium Calculation	Total Radium	0.581 ± 0.619 (1.28)	pCi/L		11/16/21 17:54	
<b>92563208012</b>	<b>FB-2</b>					
EPA 9315	Radium-226	0.0594 ± 0.0735 (0.149) C:90% T:NA	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	0.0531 ± 0.348 (0.796) C:71% T:91%	pCi/L		11/02/21 14:20	
Total Radium Calculation	Total Radium	0.113 ± 0.422 (0.945)	pCi/L		11/16/21 17:54	

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563208013</b>	<b>DUP-3</b>					
EPA 9315	Radium-226	0.327 ± 0.154 (0.212) C:86% T:NA	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	1.73 ± 0.601 (0.869) C:72% T:80%	pCi/L		11/11/21 11:10	
Total Radium Calculation	Total Radium	2.06 ± 0.755 (1.08)	pCi/L		11/16/21 17:54	
<b>92563208014</b>	<b>FB-3</b>					
EPA 9315	Radium-226	-0.0242 ± 0.0628 (0.200) C:78% T:NA	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	1.13 ± 0.497 (0.828) C:71% T:84%	pCi/L		11/11/21 11:10	
Total Radium Calculation	Total Radium	1.13 ± 0.560 (1.03)	pCi/L		11/16/21 17:54	
<b>92563208015</b>	<b>EB-3</b>					
EPA 9315	Radium-226	0.0365 ± 0.0702 (0.161) C:86% T:NA	pCi/L		11/12/21 10:03	
EPA 9320	Radium-228	0.942 ± 0.422 (0.713) C:84% T:85%	pCi/L		11/08/21 11:14	
Total Radium Calculation	Total Radium	0.979 ± 0.492 (0.874)	pCi/L		11/16/21 17:54	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: BRGWC-45**      **Lab ID: 92563208001**      Collected: 09/23/21 12:15      Received: 09/23/21 17:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>-0.158 ± 0.199 (0.656)</b> <b>C:98% T:NA</b>	pCi/L	10/27/21 08:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.619U ± 0.461 (0.904)</b> <b>C:63% T:90%</b>	pCi/L	10/07/21 14:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.619 ± 0.660 (1.56)</b>	pCi/L	10/28/21 17:14	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: BRGWC-47**      **Lab ID: 92563208002**      Collected: 09/23/21 13:35      Received: 09/23/21 17:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.238 ± 0.229 (0.434)</b> <b>C:98% T:NA</b>	pCi/L	10/27/21 08:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.289U ± 0.421 (0.906)</b> <b>C:61% T:89%</b>	pCi/L	10/07/21 14:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.527 ± 0.650 (1.34)</b>	pCi/L	10/28/21 17:14	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-50</b> <b>Lab ID: 92563208003</b> Collected: 09/27/21 13:05      Received: 09/28/21 10:18      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.310 ± 0.148 (0.168)</b> <b>C:74% T:NA</b>	pCi/L	11/11/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>1.76 ± 0.588 (0.821)</b> <b>C:75% T:84%</b>	pCi/L	11/02/21 14:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>2.07 ± 0.736 (0.989)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: DUP-2**      **Lab ID: 92563208004**      Collected: 09/27/21 00:00      Received: 09/28/21 10:18      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.474 ± 0.174 (0.170)</b> <b>C:88% T:NA</b>	pCi/L	11/11/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>2.91 ± 0.777 (0.855)</b> <b>C:71% T:90%</b>	pCi/L	11/02/21 14:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>3.38 ± 0.951 (1.03)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-25I</b> <b>Lab ID: 92563208005</b> Collected: 09/28/21 11:26      Received: 09/29/21 11:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.187 ± 0.111 (0.150)</b> <b>C:86% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>4.25 ± 1.03 (0.940)</b> <b>C:71% T:81%</b>	pCi/L	11/02/21 14:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>4.44 ± 1.14 (1.09)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: BRGWC-271**      **Lab ID: 92563208006**      Collected: 09/28/21 14:30      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.165 ± 0.108 (0.168)</b> <b>C:86% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>3.41 ± 0.866 (0.841)</b> <b>C:75% T:80%</b>	pCi/L	11/02/21 14:19	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>3.58 ± 0.974 (1.01)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-29I</b> <b>Lab ID: 92563208007</b> Collected: 09/28/21 12:51      Received: 09/29/21 11:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.105 ± 0.0982 (0.184)</b> <b>C:87% T:NA</b>	pCi/L	11/11/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>1.38 ± 0.560 (0.902)</b> <b>C:73% T:84%</b>	pCi/L	11/02/21 14:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.49 ± 0.658 (1.09)</b>	pCi/L	11/11/21 16:49	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: BRGWC-30I**      **Lab ID: 92563208008**      Collected: 09/28/21 16:30      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.174 ± 0.111 (0.165)</b> <b>C:83% T:NA</b>	pCi/L	11/11/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.575 ± 0.411 (0.799)</b> <b>C:68% T:90%</b>	pCi/L	11/02/21 14:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.749 ± 0.522 (0.964)</b>	pCi/L	11/11/21 16:49	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-32S</b> <b>Lab ID: 92563208009</b> Collected: 09/28/21 16:40      Received: 09/29/21 11:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.125 ± 0.0927 (0.152)</b> <b>C:93% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.822 ± 0.451 (0.817)</b> <b>C:73% T:83%</b>	pCi/L	11/02/21 14:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.947 ± 0.544 (0.969)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-52I</b> <b>Lab ID: 92563208010</b> Collected: 09/28/21 16:16      Received: 09/29/21 11:57      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.530 ± 0.194 (0.193)</b> <b>C:82% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>2.75 ± 0.792 (0.977)</b> <b>C:70% T:84%</b>	pCi/L	11/02/21 14:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>3.28 ± 0.986 (1.17)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: EB-2**      **Lab ID: 92563208011**      Collected: 09/28/21 14:50      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.212 ± 0.161 (0.308)</b> <b>C:87% T:NA</b>	pCi/L	11/12/21 09:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.369 ± 0.458 (0.972)</b> <b>C:68% T:80%</b>	pCi/L	11/02/21 14:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.581 ± 0.619 (1.28)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: FB-2**      **Lab ID: 92563208012**      Collected: 09/28/21 13:15      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0594 ± 0.0735 (0.149)</b> <b>C:90% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.0531 ± 0.348 (0.796)</b> <b>C:71% T:91%</b>	pCi/L	11/02/21 14:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.113 ± 0.422 (0.945)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: DUP-3**      **Lab ID: 92563208013**      Collected: 09/28/21 00:00      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.327 ± 0.154 (0.212)</b> <b>C:86% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.73 ± 0.601 (0.869)</b> <b>C:72% T:80%</b>	pCi/L	11/11/21 11:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.06 ± 0.755 (1.08)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: FB-3**      **Lab ID: 92563208014**      Collected: 09/28/21 16:15      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0242 ± 0.0628 (0.200)</b> <b>C:78% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.13 ± 0.497 (0.828)</b> <b>C:71% T:84%</b>	pCi/L	11/11/21 11:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.13 ± 0.560 (1.03)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

**Sample: EB-3**      **Lab ID: 92563208015**      Collected: 09/28/21 16:40      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0365 ± 0.0702 (0.161)</b> <b>C:86% T:NA</b>	pCi/L	11/12/21 10:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.942 ± 0.422 (0.713)</b> <b>C:84% T:85%</b>	pCi/L	11/08/21 11:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.979 ± 0.492 (0.874)</b>	pCi/L	11/16/21 17:54	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

QC Batch: 468246

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92563208007, 92563208008

METHOD BLANK: 2260780

Matrix: Water

Associated Lab Samples: 92563208007, 92563208008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0444 ± 0.0346 (0.179) C:69% T:NA	pCi/L	11/10/21 15:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

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QC Batch:	468380	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563208003, 92563208004, 92563208005, 92563208006, 92563208009, 92563208010, 92563208011, 92563208012, 92563208013, 92563208014, 92563208015

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METHOD BLANK: 2261544 Matrix: Water

Associated Lab Samples: 92563208003, 92563208004, 92563208005, 92563208006, 92563208009, 92563208010, 92563208011, 92563208012, 92563208013, 92563208014, 92563208015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0593 ± 0.0520 (0.210) C:76% T:NA	pCi/L	11/11/21 09:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

QC Batch: 466410

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92563208001, 92563208002

METHOD BLANK: 2252279

Matrix: Water

Associated Lab Samples: 92563208001, 92563208002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.420 ± 0.367 (0.738) C:65% T:90%	pCi/L	10/07/21 11:22	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

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QC Batch:	470825	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563208013, 92563208014, 92563208015

---

METHOD BLANK: 2272894 Matrix: Water

Associated Lab Samples: 92563208013, 92563208014, 92563208015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.934 ± 0.482 (0.855) C:70% T:80%	pCi/L	11/11/21 11:10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD RADS

Pace Project No.: 92563208

QC Batch: 466466

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92563208001, 92563208002

METHOD BLANK: 2252388

Matrix: Water

Associated Lab Samples: 92563208001, 92563208002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.396 ± 0.389 (0.814) C:96% T:NA	pCi/L	10/27/21 08:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

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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.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563208001	BRGWC-45	EPA 9315	466466		
92563208002	BRGWC-47	EPA 9315	466466		
92563208003	BRGWC-50	EPA 9315	468380		
92563208004	DUP-2	EPA 9315	468380		
92563208005	BRGWC-25I	EPA 9315	468380		
92563208006	BRGWC-27I	EPA 9315	468380		
92563208007	BRGWC-29I	EPA 9315	468246		
92563208008	BRGWC-30I	EPA 9315	468246		
92563208009	BRGWC-32S	EPA 9315	468380		
92563208010	BRGWC-52I	EPA 9315	468380		
92563208011	EB-2	EPA 9315	468380		
92563208012	FB-2	EPA 9315	468380		
92563208013	DUP-3	EPA 9315	468380		
92563208014	FB-3	EPA 9315	468380		
92563208015	EB-3	EPA 9315	468380		
92563208001	BRGWC-45	EPA 9320	466410		
92563208002	BRGWC-47	EPA 9320	466410		
92563208003	BRGWC-50	EPA 9320	469297		
92563208004	DUP-2	EPA 9320	469297		
92563208005	BRGWC-25I	EPA 9320	469297		
92563208006	BRGWC-27I	EPA 9320	469297		
92563208007	BRGWC-29I	EPA 9320	469297		
92563208008	BRGWC-30I	EPA 9320	469297		
92563208009	BRGWC-32S	EPA 9320	469297		
92563208010	BRGWC-52I	EPA 9320	469297		
92563208011	EB-2	EPA 9320	469297		
92563208012	FB-2	EPA 9320	469297		
92563208013	DUP-3	EPA 9320	470825		
92563208014	FB-3	EPA 9320	470825		
92563208015	EB-3	EPA 9320	470825		
92563208001	BRGWC-45	Total Radium Calculation	470302		
92563208002	BRGWC-47	Total Radium Calculation	470302		
92563208003	BRGWC-50	Total Radium Calculation	472894		
92563208004	DUP-2	Total Radium Calculation	472894		
92563208005	BRGWC-25I	Total Radium Calculation	472894		
92563208006	BRGWC-27I	Total Radium Calculation	472894		
92563208007	BRGWC-29I	Total Radium Calculation	472265		
92563208008	BRGWC-30I	Total Radium Calculation	472265		
92563208009	BRGWC-32S	Total Radium Calculation	472894		
92563208010	BRGWC-52I	Total Radium Calculation	472894		
92563208011	EB-2	Total Radium Calculation	472894		
92563208012	FB-2	Total Radium Calculation	472894		
92563208013	DUP-3	Total Radium Calculation	472894		
92563208014	FB-3	Total Radium Calculation	472894		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD RADS  
Pace Project No.: 92563208

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
92563208015	EB-3	Total Radium Calculation	472894		

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### REPORT OF LABORATORY ANALYSIS

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**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

GA POWER

Project #:

**WO# : 92563208**



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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 9/23/21 KAW

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:  IR Gun ID: THP230 Type of Ice:  Wet  Blue  None

Cooler Temp: 1.2 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): 1.3

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. <u>10 Day</u>
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: <u>W</u>			
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: \_\_\_\_\_



Document Name:  
**Sample Condition Upon Receipt(SCUR)**  
 Document No.:  
**F-CAR-CS-033-Rev.07**

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolinas Quality Office

\*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

Project # **W0# : 92563208**

PM: NMG

Due Date: 10/14/21

CLIENT: GA-GA Power

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	VJGK (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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7	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JJY  
Date: 10/5/2021  
Worklist: 62946  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2252388
MB Concentration:	0.386
M/B Counting Uncertainty:	0.384
MB MDC:	0.814
MB Numerical Performance Indicator:	2.02
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS62946	LCS62946
Count Date:	10/27/2021	10/27/2021
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.033	24.033
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.206	0.205
Target Conc. (pCi/L, g, F):	11.674	11.742
Uncertainty (Calculated):	0.140	0.141
Result (pCi/L, g, F):	11.691	12.083
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.106	1.131
Numerical Performance Indicator:	0.03	0.59
Percent Recovery:	100.14%	102.91%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	LCS (Y or N)?	
	LCS62946	LCS62946
Sample I.D.:	92563208001	92563208001DUP
Duplicate Sample I.D.:	92563208001	92563208001DUP
Sample Result (pCi/L, g, F):	-0.158	-0.158
Sample Duplicate Result (pCi/L, g, F):	0.198	0.198
Sample Result Counting Uncertainty (pCi/L, g, F):	-0.040	-0.040
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.172	0.172
Are sample and/or duplicate results below RL?	NO	See Below #
Duplicate Numerical Performance Indicator:	-0.879	-0.879
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	-118.88%	-118.88%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

VAM 10/27/21

06/10/27/21

# Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228  
Analyst: VAL  
Date: 10/5/2021  
Worklist: 62922  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2252279
MB concentration:	0.420
M/B 2 Sigma CSU:	0.367
MB MDC:	0.738
MB Numerical Performance Indicator:	2.25
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS/D (Y or N)?	Y
Count Date:		LCS62922	10/7/2021
Spike I.D.:		10/7/2021	21-029
Decay Corrected Spike Concentration (pCi/mL):		37.936	37.936
Volume Used (mL):		0.10	0.10
Aliquot Volume (L, g, F):		0.810	0.810
Target Conc. (pCi/L, g, F):		4.684	4.683
Uncertainty (Calculated):		0.229	0.229
Result (pCi/L, g, F):		4.993	5.479
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		1.158	1.201
Numerical Performance Indicator:		0.51	1.27
Percent Recovery:		106.61%	116.98%
Status vs Numerical Indicator:		N/A	N/A
Status vs Recovery:		Pass	Pass
Upper % Recovery Limits:		135%	135%
Lower % Recovery Limits:		60%	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS62922
Duplicate Sample I.D.:	LCS62922
Sample Result (pCi/L, g, F):	4.993
Sample Duplicate Result (pCi/L, g, F):	1.158
Sample Result 2 Sigma CSU (pCi/L, g, F):	5.479
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.201
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.571
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.28%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Handwritten signature/initials*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

*Handwritten note: Manual*



# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: VAL  
Date: 10/28/2021  
Worklist: 63313  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2266088
MB concentration:	0.131
MB 2 Sigma CSU:	0.351
MB MDC:	0.784
MB Numerical Performance Indicator:	0.73
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSID (Y or N)?	Y
LCS63313	11/2/2021
LCS63313	11/2/2021
Count Date:	11/2/2021
Spike I.D.:	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.612
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.810
Target Conc. (pCi/L, g, F):	4.623
Uncertainty (Calculated):	0.227
Result (pCi/L, g, F):	5.645
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.041
Numerical Performance Indicator:	0.18
Percent Recovery:	102.13%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS63313
Duplicate Sample I.D.:	LCS63313
Sample Result (pCi/L, g, F):	4.722
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.041
Sample Duplicate Result (pCi/L, g, F):	5.645
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.208
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.135
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	17.32%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*24/13/21*  
*AM/11/20*

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	Sample I.D.:		
Sample MS I.D.:	Sample MS I.D.:		
Sample MSD I.D.:	Sample MSD I.D.:		
Spike I.D.:	Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spike Volume Used in MS (mL):		
MS/MSD Target Conc. (pCi/L, g, F):	MS Aliquot (L, g, F):		
MS/MSD Aliquot (L, g, F):	MS Target Conc. (pCi/L, g, F):		
MS/MSD Target Conc. (pCi/L, g, F):	MSD Aliquot (L, g, F):		
MS/MSD Numerical Performance Indicator:	MSD Target Conc. (pCi/L, g, F):		
MS/MSD Status vs Numerical Indicator:	MS/MSD Uncertainty (calculated):		
MS/MSD Status vs Recovery:	MS/MSD Uncertainty (calculated):		
MS/MSD Upper % Recovery Limits:	MS/MSD Numerical Performance Indicator:		
MS/MSD Lower % Recovery Limits:	MS/MSD Numerical Performance Indicator:		
	MS/MSD Percent Recovery:		
	MS/MSD Status vs Numerical Indicator:		
	MS/MSD Status vs Recovery:		
	MS/MSD Upper % Recovery Limits:		
	MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Result:
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:
Are sample and/or duplicate results below RL?	Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	MS/MSD Duplicate Status vs Numerical Indicator:
Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs RPD:
Duplicate Status vs RPD:	% RPD Limit:

October 22, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 23, 2021 and September 29, 2021. 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 - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCD

Pace Project No.: 92563226

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
Louisiana/NELAP Certification # LA170028  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Virginia/VELAP Certification #: 460221

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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 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: BRANCH AP-BCD

Pace Project No.: 92563226

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563226001	BRGWC-45	Water	09/23/21 12:15	09/23/21 17:10
92563226002	BRGWC-47	Water	09/23/21 13:35	09/23/21 17:10
92563226003	BRGWC-50	Water	09/27/21 13:05	09/28/21 10:18
92563226004	DUP-2	Water	09/27/21 00:00	09/28/21 10:18
92563226005	BRGWC-25I	Water	09/28/21 11:26	09/29/21 11:57
92563226006	BRGWC-27I	Water	09/28/21 14:30	09/29/21 11:57
92563226007	BRGWC-29I	Water	09/28/21 12:51	09/29/21 11:57
92563226008	BRGWC-30I	Water	09/28/21 16:30	09/29/21 11:57
92563226009	BRGWC-32S	Water	09/28/21 16:40	09/29/21 11:57
92563226010	EB-2	Water	09/28/21 14:50	09/29/21 11:57
92563226011	FB-2	Water	09/28/21 13:15	09/29/21 11:57
92563226012	DUP-3	Water	09/28/21 00:00	09/29/21 11:57
92563226013	BRGWC-52I	Water	09/28/21 16:16	09/29/21 11:57
92563226014	FB-3	Water	09/28/21 16:15	09/29/21 11:57
92563226015	EB-3	Water	09/28/21 16:40	09/29/21 11:57

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563226001	BRGWC-45	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563226002	BRGWC-47	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563226003	BRGWC-50	EPA 6010D	DRB	7
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
92563226004	DUP-2	EPA 6010D	DRB	7
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
92563226005	BRGWC-25I	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563226006	BRGWC-27I	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563226007	BRGWC-29I	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563226008	BRGWC-30I	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563226009	BRGWC-32S	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563226010	EB-2	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563226011	FB-2	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563226012	DUP-3	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563226013	BRGWC-52I	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
92563226014	FB-3	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
		EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563226015	EB-3	SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563226001</b>	<b>BRGWC-45</b>					
	Performed by	CUSTOMER			09/24/21 10:45	
	pH	5.95	Std. Units		09/24/21 10:45	
EPA 6010D	Calcium	32.0	mg/L	1.0	10/06/21 18:27	M1
EPA 6020B	Barium	0.064	mg/L	0.0050	10/08/21 17:17	
EPA 6020B	Boron	0.029J	mg/L	0.040	10/08/21 17:17	
EPA 6020B	Cobalt	0.0049J	mg/L	0.0050	10/08/21 17:17	
EPA 6020B	Lithium	0.0023J	mg/L	0.030	10/08/21 17:17	
SM 2540C-2011	Total Dissolved Solids	277	mg/L	10.0	09/30/21 18:57	
EPA 300.0 Rev 2.1 1993	Chloride	29.3	mg/L	1.0	09/27/21 08:04	
EPA 300.0 Rev 2.1 1993	Fluoride	0.060J	mg/L	0.10	09/27/21 08:04	
EPA 300.0 Rev 2.1 1993	Sulfate	97.5	mg/L	2.0	09/27/21 15:33	
<b>92563226002</b>	<b>BRGWC-47</b>					
	Performed by	CUSTOMER			09/24/21 10:46	
	pH	5.74	Std. Units		09/24/21 10:46	
EPA 6010D	Calcium	336	mg/L	10.0	10/07/21 16:32	
EPA 6020B	Arsenic	0.0020J	mg/L	0.0050	10/08/21 17:22	
EPA 6020B	Barium	0.031	mg/L	0.0050	10/08/21 17:22	
EPA 6020B	Boron	0.47	mg/L	0.040	10/08/21 17:22	
EPA 6020B	Lithium	0.042	mg/L	0.030	10/08/21 17:22	
SM 2540C-2011	Total Dissolved Solids	1770	mg/L	100	09/30/21 18:58	
EPA 300.0 Rev 2.1 1993	Chloride	4.3	mg/L	1.0	09/27/21 08:19	
EPA 300.0 Rev 2.1 1993	Sulfate	1240	mg/L	27.0	09/27/21 15:48	
<b>92563226003</b>	<b>BRGWC-50</b>					
	Performed by	CUSTOMER			09/28/21 17:32	
	pH	5.05	Std. Units		09/28/21 17:32	
EPA 6010D	Manganese	78.0	mg/L	0.40	10/07/21 16:37	
EPA 6010D	Iron	0.15	mg/L	0.040	10/06/21 18:51	
EPA 6010D	Potassium	9.7	mg/L	0.20	10/06/21 18:51	
EPA 6010D	Sodium	46.3	mg/L	1.0	10/06/21 18:51	
EPA 6010D	Calcium	196	mg/L	1.0	10/06/21 18:51	
EPA 6010D	Magnesium	136	mg/L	0.050	10/06/21 18:51	
EPA 6010D	Hardness, Total(SM 2340B)	1050	mg/L	2.7	10/06/21 18:51	
EPA 6020B	Barium	0.017	mg/L	0.0050	10/08/21 17:45	
EPA 6020B	Beryllium	0.0060	mg/L	0.00050	10/08/21 17:45	
EPA 6020B	Boron	0.32	mg/L	0.040	10/08/21 17:45	
EPA 6020B	Cadmium	0.0095	mg/L	0.00050	10/08/21 17:45	
EPA 6020B	Cobalt	1.3	mg/L	0.050	10/11/21 14:39	
EPA 6020B	Lithium	0.038	mg/L	0.030	10/08/21 17:45	
EPA 6020B	Selenium	0.0022J	mg/L	0.0050	10/08/21 17:45	
SM 2540C-2011	Total Dissolved Solids	1800	mg/L	100	09/30/21 19:01	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	11.2	mg/L	5.0	10/07/21 19:14	
SM 2320B-2011	Alkalinity, Total as CaCO3	11.2	mg/L	5.0	10/07/21 19:14	
EPA 300.0 Rev 2.1 1993	Chloride	16.2	mg/L	1.0	09/30/21 16:20	
EPA 300.0 Rev 2.1 1993	Fluoride	0.43	mg/L	0.10	09/30/21 16:20	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563226003</b>	<b>BRGWC-50</b>					
EPA 300.0 Rev 2.1 1993	Sulfate	1180	mg/L	26.0	10/01/21 04:31	
<b>92563226004</b>	<b>DUP-2</b>					
EPA 6010D	Manganese	76.2	mg/L	0.40	10/07/21 16:41	
EPA 6010D	Iron	0.14	mg/L	0.040	10/06/21 18:56	
EPA 6010D	Potassium	9.4	mg/L	0.20	10/06/21 18:56	
EPA 6010D	Sodium	45.2	mg/L	1.0	10/06/21 18:56	
EPA 6010D	Calcium	191	mg/L	1.0	10/06/21 18:56	
EPA 6010D	Magnesium	133	mg/L	0.050	10/06/21 18:56	
EPA 6010D	Hardness, Total(SM 2340B)	1020	mg/L	2.7	10/06/21 18:56	
EPA 6020B	Barium	0.018	mg/L	0.0050	10/08/21 17:51	
EPA 6020B	Beryllium	0.0058	mg/L	0.00050	10/08/21 17:51	
EPA 6020B	Boron	0.32	mg/L	0.040	10/08/21 17:51	
EPA 6020B	Cadmium	0.0099	mg/L	0.00050	10/08/21 17:51	
EPA 6020B	Cobalt	1.3	mg/L	0.050	10/11/21 14:45	
EPA 6020B	Lithium	0.039	mg/L	0.030	10/08/21 17:51	
EPA 6020B	Selenium	0.0022J	mg/L	0.0050	10/08/21 17:51	
SM 2540C-2011	Total Dissolved Solids	1840	mg/L	100	09/30/21 19:01	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	10.3	mg/L	5.0	10/07/21 19:20	
SM 2320B-2011	Alkalinity, Total as CaCO3	10.3	mg/L	5.0	10/07/21 19:20	
EPA 300.0 Rev 2.1 1993	Chloride	16.2	mg/L	1.0	09/30/21 16:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.46	mg/L	0.10	09/30/21 16:36	
EPA 300.0 Rev 2.1 1993	Sulfate	1170	mg/L	26.0	10/01/21 04:47	M1
<b>92563226005</b>	<b>BRGWC-25I</b>					
	Performed by	CUSTOME			09/29/21 13:17	
		R				
	pH	5.97	Std. Units		09/29/21 13:17	
EPA 6010D	Calcium	38.4	mg/L	1.0	10/06/21 19:10	
EPA 6020B	Barium	0.023	mg/L	0.0050	10/08/21 17:57	
EPA 6020B	Boron	1.1	mg/L	0.040	10/08/21 17:57	
EPA 6020B	Cobalt	0.0029J	mg/L	0.0050	10/08/21 17:57	
EPA 6020B	Molybdenum	0.00089J	mg/L	0.010	10/08/21 17:57	
SM 2540C-2011	Total Dissolved Solids	270	mg/L	10.0	10/03/21 11:39	
EPA 300.0 Rev 2.1 1993	Chloride	4.2	mg/L	1.0	09/30/21 22:10	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	09/30/21 22:10	
EPA 300.0 Rev 2.1 1993	Sulfate	112	mg/L	3.0	10/01/21 08:27	
<b>92563226006</b>	<b>BRGWC-27I</b>					
	Performed by	CUSTOME			09/29/21 13:17	
		R				
	pH	5.82	Std. Units		09/29/21 13:17	
EPA 6010D	Calcium	50.4	mg/L	1.0	10/06/21 19:15	
EPA 6020B	Barium	0.013	mg/L	0.0050	10/08/21 18:18	
EPA 6020B	Boron	0.95	mg/L	0.040	10/08/21 18:18	
EPA 6020B	Cobalt	0.0047J	mg/L	0.0050	10/08/21 18:18	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	10/08/21 18:18	
SM 2540C-2011	Total Dissolved Solids	262	mg/L	10.0	10/03/21 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	3.7	mg/L	1.0	09/30/21 22:26	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563226006</b>	<b>BRGWC-27I</b>					
EPA 300.0 Rev 2.1 1993	Fluoride	0.16	mg/L	0.10	09/30/21 22:26	
EPA 300.0 Rev 2.1 1993	Sulfate	137	mg/L	3.0	10/01/21 08:42	
<b>92563226007</b>	<b>BRGWC-29I</b>					
	Performed by	CUSTOMER			09/29/21 13:17	
	pH	4.23	Std. Units		09/29/21 13:17	
EPA 6010D	Calcium	59.5	mg/L	1.0	10/06/21 19:20	
EPA 6020B	Barium	0.017	mg/L	0.0050	10/08/21 18:24	
EPA 6020B	Beryllium	0.00079	mg/L	0.00050	10/08/21 18:24	
EPA 6020B	Boron	0.90	mg/L	0.040	10/08/21 18:24	
EPA 6020B	Cobalt	0.0069	mg/L	0.0050	10/08/21 18:24	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	10/08/21 18:24	
EPA 6020B	Selenium	0.0022J	mg/L	0.0050	10/08/21 18:24	
SM 2540C-2011	Total Dissolved Solids	457	mg/L	10.0	10/03/21 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	09/30/21 22:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.081J	mg/L	0.10	09/30/21 22:42	
EPA 300.0 Rev 2.1 1993	Sulfate	250	mg/L	6.0	10/01/21 08:58	
<b>92563226008</b>	<b>BRGWC-30I</b>					
	Performed by	CUSTOMER			09/29/21 13:17	
	pH	6.33	Std. Units		09/29/21 13:17	
EPA 6010D	Calcium	212	mg/L	1.0	10/06/21 19:25	
EPA 6020B	Barium	0.035	mg/L	0.0050	10/08/21 18:30	
EPA 6020B	Boron	1.7	mg/L	0.040	10/08/21 18:30	
EPA 6020B	Cobalt	0.0010J	mg/L	0.0050	10/08/21 18:30	
EPA 6020B	Lithium	0.023J	mg/L	0.030	10/08/21 18:30	
EPA 6020B	Molybdenum	0.0010J	mg/L	0.010	10/08/21 18:30	
SM 2540C-2011	Total Dissolved Solids	1050	mg/L	20.0	10/03/21 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	3.4	mg/L	1.0	09/30/21 22:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11	mg/L	0.10	09/30/21 22:58	
EPA 300.0 Rev 2.1 1993	Sulfate	612	mg/L	14.0	10/01/21 09:14	
<b>92563226009</b>	<b>BRGWC-32S</b>					
	Performed by	CUSTOMER			09/29/21 13:17	
	pH	5.82	Std. Units		09/29/21 13:17	
EPA 6010D	Calcium	33.9	mg/L	1.0	10/06/21 19:30	
EPA 6020B	Barium	0.020	mg/L	0.0050	10/08/21 18:35	
EPA 6020B	Boron	0.91	mg/L	0.040	10/08/21 18:35	
EPA 6020B	Chromium	0.0021J	mg/L	0.0050	10/08/21 18:35	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	10/08/21 18:35	
EPA 6020B	Selenium	0.13	mg/L	0.0050	10/08/21 18:35	
SM 2540C-2011	Total Dissolved Solids	375	mg/L	10.0	10/03/21 11:40	
EPA 300.0 Rev 2.1 1993	Chloride	3.6	mg/L	1.0	09/30/21 23:14	
EPA 300.0 Rev 2.1 1993	Sulfate	189	mg/L	4.0	10/01/21 09:29	
<b>92563226012</b>	<b>DUP-3</b>					
EPA 6010D	Calcium	209	mg/L	1.0	10/06/21 19:44	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563226012</b>	<b>DUP-3</b>					
EPA 6020B	Barium	0.034	mg/L	0.0050	10/08/21 18:53	
EPA 6020B	Boron	1.6	mg/L	0.040	10/08/21 18:53	
EPA 6020B	Cobalt	0.0010J	mg/L	0.0050	10/08/21 18:53	
EPA 6020B	Lithium	0.023J	mg/L	0.030	10/08/21 18:53	
EPA 6020B	Molybdenum	0.00096J	mg/L	0.010	10/08/21 18:53	
SM 2540C-2011	Total Dissolved Solids	1140	mg/L	20.0	10/04/21 15:36	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	10/01/21 00:02	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11	mg/L	0.10	10/01/21 00:02	
EPA 300.0 Rev 2.1 1993	Sulfate	609	mg/L	14.0	10/01/21 09:45	
<b>92563226013</b>	<b>BRGWC-521</b>					
	Performed by	CUSTOME			09/29/21 13:18	
		R				
	pH	6.81	Std. Units		09/29/21 13:18	
EPA 6010D	Iron	5.7	mg/L	0.040	10/06/21 19:49	
EPA 6010D	Manganese	0.76	mg/L	0.040	10/06/21 19:49	
EPA 6010D	Potassium	4.8	mg/L	0.20	10/06/21 19:49	
EPA 6010D	Sodium	18.2	mg/L	1.0	10/06/21 19:49	
EPA 6010D	Calcium	39.5	mg/L	1.0	10/06/21 19:49	
EPA 6010D	Magnesium	17.6	mg/L	0.050	10/06/21 19:49	
EPA 6010D	Hardness, Total(SM 2340B)	171	mg/L	2.7	10/06/21 19:49	
EPA 6020B	Barium	0.013	mg/L	0.0050	10/08/21 18:58	
EPA 6020B	Boron	1.4	mg/L	0.040	10/08/21 18:58	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	10/08/21 18:58	
SM 2540C-2011	Total Dissolved Solids	336	mg/L	10.0	10/04/21 15:36	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	75.4	mg/L	5.0	10/11/21 23:30	
SM 2320B-2011	Alkalinity, Total as CaCO3	75.4	mg/L	5.0	10/11/21 23:30	
EPA 300.0 Rev 2.1 1993	Chloride	5.5	mg/L	1.0	10/01/21 00:18	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	10/01/21 00:18	
EPA 300.0 Rev 2.1 1993	Sulfate	132	mg/L	3.0	10/01/21 10:01	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: <b>BRGWC-45</b> Lab ID: <b>92563226001</b> Collected: 09/23/21 12:15 Received: 09/23/21 17:10 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 10:45		
pH	<b>5.95</b>	Std. Units			1		09/24/21 10:45		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>32.0</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 18:27	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 17:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:17	7440-38-2	
Barium	<b>0.064</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 17:17	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 17:17	7440-41-7	
Boron	<b>0.029J</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 17:17	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 17:17	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:17	7440-47-3	
Cobalt	<b>0.0049J</b>	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 17:17	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 17:17	7439-92-1	
Lithium	<b>0.0023J</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 17:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 17:17	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 17:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 17:17	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 09:45	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>277</b>	mg/L	10.0	10.0	1		09/30/21 18:57		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>29.3</b>	mg/L	1.0	0.60	1		09/27/21 08:04	16887-00-6	
Fluoride	<b>0.060J</b>	mg/L	0.10	0.050	1		09/27/21 08:04	16984-48-8	
Sulfate	<b>97.5</b>	mg/L	2.0	1.0	2		09/27/21 15:33	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: <b>BRGWC-47</b>		Lab ID: <b>92563226002</b>		Collected: 09/23/21 13:35		Received: 09/23/21 17:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 10:46		
pH	<b>5.74</b>	Std. Units			1		09/24/21 10:46		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>336</b>	mg/L	10.0	1.2	10	10/06/21 14:05	10/07/21 16:32	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 17:22	7440-36-0	
Arsenic	<b>0.0020J</b>	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:22	7440-38-2	
Barium	<b>0.031</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 17:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 17:22	7440-41-7	
Boron	<b>0.47</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 17:22	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 17:22	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 17:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 17:22	7439-92-1	
Lithium	<b>0.042</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 17:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 17:22	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 17:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 17:22	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 09:47	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1770</b>	mg/L	100	100	1		09/30/21 18:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4.3</b>	mg/L	1.0	0.60	1		09/27/21 08:19	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 08:19	16984-48-8	
Sulfate	<b>1240</b>	mg/L	27.0	13.5	27		09/27/21 15:48	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Sample: BRGWC-50		Lab ID: 92563226003		Collected: 09/27/21 13:05		Received: 09/28/21 10:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/28/21 17:32		
pH	5.05	Std. Units			1		09/28/21 17:32		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Manganese	78.0	mg/L	0.40	0.043	10	10/06/21 14:05	10/07/21 16:37	7439-96-5	
Iron	0.15	mg/L	0.040	0.025	1	10/06/21 14:05	10/06/21 18:51	7439-89-6	
Potassium	9.7	mg/L	0.20	0.15	1	10/06/21 14:05	10/06/21 18:51	7440-09-7	
Sodium	46.3	mg/L	1.0	0.58	1	10/06/21 14:05	10/06/21 18:51	7440-23-5	
Calcium	196	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 18:51	7440-70-2	
Magnesium	136	mg/L	0.050	0.012	1	10/06/21 14:05	10/06/21 18:51	7439-95-4	
Hardness, Total(SM 2340B)	1050	mg/L	2.7	0.35	1	10/06/21 14:05	10/06/21 18:51		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 17:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:45	7440-38-2	
Barium	0.017	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 17:45	7440-39-3	
Beryllium	0.0060	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 17:45	7440-41-7	
Boron	0.32	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 17:45	7440-42-8	
Cadmium	0.0095	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 17:45	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:45	7440-47-3	
Cobalt	1.3	mg/L	0.050	0.0039	10	10/07/21 09:38	10/11/21 14:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 17:45	7439-92-1	
Lithium	0.038	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 17:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 17:45	7439-98-7	
Selenium	0.0022J	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 17:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 17:45	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 09:50	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	1800	mg/L	100	100	1		09/30/21 19:01		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	11.2	mg/L	5.0	5.0	1		10/07/21 19:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/07/21 19:14		
Alkalinity, Total as CaCO3	11.2	mg/L	5.0	5.0	1		10/07/21 19:14		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Sample: <b>BRGWC-50</b> Lab ID: <b>92563226003</b> Collected: 09/27/21 13:05      Received: 09/28/21 10:18      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>16.2</b>	mg/L	1.0	0.60	1		09/30/21 16:20	16887-00-6	
Fluoride	<b>0.43</b>	mg/L	0.10	0.050	1		09/30/21 16:20	16984-48-8	
Sulfate	<b>1180</b>	mg/L	26.0	13.0	26		10/01/21 04:31	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>									
Analytical Method: EPA 353.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 11:31		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: DUP-2		Lab ID: 92563226004		Collected: 09/27/21 00:00		Received: 09/28/21 10:18		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Manganese	<b>76.2</b>	mg/L	0.40	0.043	10	10/06/21 14:05	10/07/21 16:41	7439-96-5		
Iron	<b>0.14</b>	mg/L	0.040	0.025	1	10/06/21 14:05	10/06/21 18:56	7439-89-6		
Potassium	<b>9.4</b>	mg/L	0.20	0.15	1	10/06/21 14:05	10/06/21 18:56	7440-09-7		
Sodium	<b>45.2</b>	mg/L	1.0	0.58	1	10/06/21 14:05	10/06/21 18:56	7440-23-5		
Calcium	<b>191</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 18:56	7440-70-2		
Magnesium	<b>133</b>	mg/L	0.050	0.012	1	10/06/21 14:05	10/06/21 18:56	7439-95-4		
Hardness, Total(SM 2340B)	<b>1020</b>	mg/L	2.7	0.35	1	10/06/21 14:05	10/06/21 18:56			
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 17:51	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:51	7440-38-2		
Barium	<b>0.018</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 17:51	7440-39-3		
Beryllium	<b>0.0058</b>	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 17:51	7440-41-7		
Boron	<b>0.32</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 17:51	7440-42-8		
Cadmium	<b>0.0099</b>	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 17:51	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:51	7440-47-3		
Cobalt	<b>1.3</b>	mg/L	0.050	0.0039	10	10/07/21 09:38	10/11/21 14:45	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 17:51	7439-92-1		
Lithium	<b>0.039</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 17:51	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 17:51	7439-98-7		
Selenium	<b>0.0022J</b>	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 17:51	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 17:51	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:02	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>1840</b>	mg/L	100	100	1		09/30/21 19:01			
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	<b>10.3</b>	mg/L	5.0	5.0	1		10/07/21 19:20			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/07/21 19:20			
Alkalinity, Total as CaCO3	<b>10.3</b>	mg/L	5.0	5.0	1		10/07/21 19:20			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>16.2</b>	mg/L	1.0	0.60	1		09/30/21 16:36	16887-00-6		
Fluoride	<b>0.46</b>	mg/L	0.10	0.050	1		09/30/21 16:36	16984-48-8		
Sulfate	<b>1170</b>	mg/L	26.0	13.0	26		10/01/21 04:47	14808-79-8	M1	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: BRGWC-25I		Lab ID: 92563226005		Collected: 09/28/21 11:26		Received: 09/29/21 11:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:17		
pH	<b>5.97</b>	Std. Units			1		09/29/21 13:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>38.4</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:10	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 17:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:57	7440-38-2	
Barium	<b>0.023</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 17:57	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 17:57	7440-41-7	
Boron	<b>1.1</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 17:57	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 17:57	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 17:57	7440-47-3	
Cobalt	<b>0.0029J</b>	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 17:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 17:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 17:57	7439-93-2	
Molybdenum	<b>0.00089J</b>	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 17:57	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 17:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 17:57	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:04	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>270</b>	mg/L	10.0	10.0	1		10/03/21 11:39		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4.2</b>	mg/L	1.0	0.60	1		09/30/21 22:10	16887-00-6	
Fluoride	<b>0.15</b>	mg/L	0.10	0.050	1		09/30/21 22:10	16984-48-8	
Sulfate	<b>112</b>	mg/L	3.0	1.5	3		10/01/21 08:27	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: BRGWC-271		Lab ID: 92563226006		Collected: 09/28/21 14:30		Received: 09/29/21 11:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:17		
pH	<b>5.82</b>	Std. Units			1		09/29/21 13:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>50.4</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:15	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:18	7440-38-2	
Barium	<b>0.013</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:18	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:18	7440-41-7	
Boron	<b>0.95</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:18	7440-47-3	
Cobalt	<b>0.0047J</b>	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:18	7439-92-1	
Lithium	<b>0.0011J</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:18	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:12	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>262</b>	mg/L	10.0	10.0	1		10/03/21 11:40		
<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	0.60	1		09/30/21 22:26	16887-00-6	
Fluoride	<b>0.16</b>	mg/L	0.10	0.050	1		09/30/21 22:26	16984-48-8	
Sulfate	<b>137</b>	mg/L	3.0	1.5	3		10/01/21 08:42	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: BRGWC-29I		Lab ID: 92563226007		Collected: 09/28/21 12:51		Received: 09/29/21 11:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:17		
pH	<b>4.23</b>	Std. Units			1		09/29/21 13:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>59.5</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:20	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:24	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:24	7440-38-2	
Barium	<b>0.017</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:24	7440-39-3	
Beryllium	<b>0.00079</b>	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:24	7440-41-7	
Boron	<b>0.90</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:24	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:24	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:24	7440-47-3	
Cobalt	<b>0.0069</b>	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:24	7439-92-1	
Lithium	<b>0.0029J</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:24	7439-98-7	
Selenium	<b>0.0022J</b>	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:24	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:15	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>457</b>	mg/L	10.0	10.0	1		10/03/21 11:40		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.4</b>	mg/L	1.0	0.60	1		09/30/21 22:42	16887-00-6	
Fluoride	<b>0.081J</b>	mg/L	0.10	0.050	1		09/30/21 22:42	16984-48-8	
Sulfate	<b>250</b>	mg/L	6.0	3.0	6		10/01/21 08:58	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: BRGWC-30I		Lab ID: 92563226008		Collected: 09/28/21 16:30		Received: 09/29/21 11:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/29/21 13:17		
pH	6.33	Std. Units			1		09/29/21 13:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	212	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:25	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:30	7440-38-2	
Barium	0.035	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:30	7440-41-7	
Boron	1.7	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:30	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:30	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:30	7440-47-3	
Cobalt	0.0010J	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:30	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:30	7439-92-1	
Lithium	0.023J	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:30	7439-93-2	
Molybdenum	0.0010J	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:30	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:30	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:18	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	1050	mg/L	20.0	20.0	1		10/03/21 11:40		
<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	0.60	1		09/30/21 22:58	16887-00-6	
Fluoride	0.11	mg/L	0.10	0.050	1		09/30/21 22:58	16984-48-8	
Sulfate	612	mg/L	14.0	7.0	14		10/01/21 09:14	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Sample: <b>BRGWC-32S</b>		Lab ID: <b>92563226009</b>		Collected: 09/28/21 16:40	Received: 09/29/21 11:57	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:17		
pH	<b>5.82</b>	Std. Units			1		09/29/21 13:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>33.9</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:30	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:35	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:35	7440-38-2	
Barium	<b>0.020</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:35	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:35	7440-41-7	
Boron	<b>0.91</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:35	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:35	7440-43-9	
Chromium	<b>0.0021J</b>	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:35	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:35	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:35	7439-92-1	
Lithium	<b>0.0021J</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:35	7439-98-7	
Selenium	<b>0.13</b>	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:35	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:20	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>375</b>	mg/L	10.0	10.0	1		10/03/21 11:40		
<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	0.60	1		09/30/21 23:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/21 23:14	16984-48-8	
Sulfate	<b>189</b>	mg/L	4.0	2.0	4		10/01/21 09:29	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: EB-2		Lab ID: 92563226010		Collected: 09/28/21 14:50	Received: 09/29/21 11:57	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	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	ND	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:34	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:41	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:41	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:41	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:41	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:41	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:41	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:41	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:41	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:41	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:41	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:41	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:41	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:41	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:23	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/03/21 11:40			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/30/21 23:30	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/30/21 23:30	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/30/21 23:30	14808-79-8		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: FB-2		Lab ID: 92563226011		Collected: 09/28/21 13:15		Received: 09/29/21 11:57		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:39	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:47	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:47	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:47	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:47	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:47	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:47	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:47	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:47	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:47	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:47	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:47	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:47	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:47	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:25	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/03/21 11:40			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/30/21 23:46	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/30/21 23:46	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/30/21 23:46	14808-79-8		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: DUP-3		Lab ID: 92563226012		Collected: 09/28/21 00:00	Received: 09/29/21 11:57	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>209</b>	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:44	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:53	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:53	7440-38-2		
Barium	<b>0.034</b>	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:53	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:53	7440-41-7		
Boron	<b>1.6</b>	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:53	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:53	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:53	7440-47-3		
Cobalt	<b>0.0010J</b>	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:53	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:53	7439-92-1		
Lithium	<b>0.023J</b>	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:53	7439-93-2		
Molybdenum	<b>0.00096J</b>	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:53	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:53	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:53	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:28	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>1140</b>	mg/L	20.0	20.0	1		10/04/21 15:36			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>3.5</b>	mg/L	1.0	0.60	1		10/01/21 00:02	16887-00-6		
Fluoride	<b>0.11</b>	mg/L	0.10	0.050	1		10/01/21 00:02	16984-48-8		
Sulfate	<b>609</b>	mg/L	14.0	7.0	14		10/01/21 09:45	14808-79-8		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: BRGWC-52I		Lab ID: 92563226013		Collected: 09/28/21 16:16		Received: 09/29/21 11:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/29/21 13:18		
pH	6.81	Std. Units			1		09/29/21 13:18		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	5.7	mg/L	0.040	0.025	1	10/06/21 14:05	10/06/21 19:49	7439-89-6	
Manganese	0.76	mg/L	0.040	0.0043	1	10/06/21 14:05	10/06/21 19:49	7439-96-5	
Potassium	4.8	mg/L	0.20	0.15	1	10/06/21 14:05	10/06/21 19:49	7440-09-7	
Sodium	18.2	mg/L	1.0	0.58	1	10/06/21 14:05	10/06/21 19:49	7440-23-5	
Calcium	39.5	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 19:49	7440-70-2	
Magnesium	17.6	mg/L	0.050	0.012	1	10/06/21 14:05	10/06/21 19:49	7439-95-4	
Hardness, Total(SM 2340B)	171	mg/L	2.7	0.35	1	10/06/21 14:05	10/06/21 19:49		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 18:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:58	7440-38-2	
Barium	0.013	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 18:58	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 18:58	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 18:58	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 18:58	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 18:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 18:58	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 18:58	7439-92-1	
Lithium	0.0035J	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 18:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 18:58	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 18:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 18:58	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:31	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	336	mg/L	10.0	10.0	1		10/04/21 15:36		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	75.4	mg/L	5.0	5.0	1		10/11/21 23:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:30		
Alkalinity, Total as CaCO3	75.4	mg/L	5.0	5.0	1		10/11/21 23:30		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Sample: BRGWC-52I		Lab ID: 92563226013		Collected: 09/28/21 16:16	Received: 09/29/21 11:57	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	5.5	mg/L	1.0	0.60	1		10/01/21 00:18	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.050	1		10/01/21 00:18	16984-48-8	
Sulfate	132	mg/L	3.0	1.5	3		10/01/21 10:01	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2 Rev 2.0 1993 Pace Analytical Services - Asheville							
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:36		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: <b>FB-3</b>		Lab ID: <b>92563226014</b>		Collected: 09/28/21 16:15		Received: 09/29/21 11:57		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	10/06/21 14:05	10/06/21 20:08	7439-89-6		
Manganese	ND	mg/L	0.040	0.0043	1	10/06/21 14:05	10/06/21 20:08	7439-96-5		
Potassium	ND	mg/L	0.20	0.15	1	10/06/21 14:05	10/06/21 20:08	7440-09-7		
Sodium	ND	mg/L	1.0	0.58	1	10/06/21 14:05	10/06/21 20:08	7440-23-5		
Calcium	ND	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 20:08	7440-70-2		
Magnesium	ND	mg/L	0.050	0.012	1	10/06/21 14:05	10/06/21 20:08	7439-95-4		
Hardness, Total(SM 2340B)	ND	mg/L	2.7	0.35	1	10/06/21 14:05	10/06/21 20:08			
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 19:10	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 19:10	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 19:10	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 19:10	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 19:10	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 19:10	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 19:10	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 19:10	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 19:10	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 19:10	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 19:10	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 19:10	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 19:10	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:33	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/04/21 15:36			
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:38			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:38			
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		10/11/21 23:38			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		10/01/21 00:34	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		10/01/21 00:34	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		10/01/21 00:34	14808-79-8		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

Sample: EB-3		Lab ID: 92563226015		Collected: 09/28/21 16:40	Received: 09/29/21 11:57	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	10/06/21 14:05	10/06/21 20:13	7439-89-6		
Manganese	ND	mg/L	0.040	0.0043	1	10/06/21 14:05	10/06/21 20:13	7439-96-5		
Potassium	ND	mg/L	0.20	0.15	1	10/06/21 14:05	10/06/21 20:13	7440-09-7		
Sodium	ND	mg/L	1.0	0.58	1	10/06/21 14:05	10/06/21 20:13	7440-23-5		
Calcium	ND	mg/L	1.0	0.12	1	10/06/21 14:05	10/06/21 20:13	7440-70-2		
Magnesium	ND	mg/L	0.050	0.012	1	10/06/21 14:05	10/06/21 20:13	7439-95-4		
Hardness, Total(SM 2340B)	ND	mg/L	2.7	0.35	1	10/06/21 14:05	10/06/21 20:13			
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/07/21 09:38	10/08/21 19:27	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 19:27	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/07/21 09:38	10/08/21 19:27	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/07/21 09:38	10/08/21 19:27	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/07/21 09:38	10/08/21 19:27	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/07/21 09:38	10/08/21 19:27	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/07/21 09:38	10/08/21 19:27	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/07/21 09:38	10/08/21 19:27	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/07/21 09:38	10/08/21 19:27	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/07/21 09:38	10/08/21 19:27	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/07/21 09:38	10/08/21 19:27	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/07/21 09:38	10/08/21 19:27	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/07/21 09:38	10/08/21 19:27	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	10/11/21 15:05	10/12/21 10:36	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/04/21 15:36			
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:41			
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:41			
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		10/11/21 23:41			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		10/01/21 01:53	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		10/01/21 01:53	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		10/01/21 01:53	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 651173 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004, 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

METHOD BLANK: 3415002 Matrix: Water  
Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004, 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	10/06/21 18:17	
Hardness, Total(SM 2340B)	mg/L	ND	2.7	0.35	10/06/21 18:17	
Iron	mg/L	ND	0.040	0.025	10/06/21 18:17	
Magnesium	mg/L	ND	0.050	0.012	10/06/21 18:17	
Manganese	mg/L	ND	0.040	0.0043	10/06/21 18:17	
Potassium	mg/L	ND	0.20	0.15	10/06/21 18:17	
Sodium	mg/L	ND	1.0	0.58	10/06/21 18:17	

LABORATORY CONTROL SAMPLE: 3415003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	
Hardness, Total(SM 2340B)	mg/L	6.6	6.7	102	80-120	
Iron	mg/L	1	1.0	104	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Manganese	mg/L	1	1.0	102	80-120	
Potassium	mg/L	1	0.92	92	80-120	
Sodium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3415004 3415005

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563226001 Result	Spike Conc.	Spike Conc.	Conc.								
Calcium	mg/L	32.0	1	1	34.1	34.7	206	267	75-125	2	20	M1	
Hardness, Total(SM 2340B)	mg/L	144	6.6	6.6	154	157	165	211	75-125	2	20		
Iron	mg/L	0.66	1	1	1.7	1.7	107	108	75-125	1	20		
Magnesium	mg/L	15.4	1	1	16.8	17.2	141	177	75-125	2	20	M1	
Manganese	mg/L	0.30	1	1	1.3	1.3	100	102	75-125	1	20		
Potassium	mg/L	3.4	1	1	4.4	4.5	106	117	75-125	2	20		
Sodium	mg/L	13.9	1	1	15.3	15.7	142	176	75-125	2	20	M1	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 651350      Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A      Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004, 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

METHOD BLANK: 3415849      Matrix: Water  
Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004, 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/08/21 17:05	
Arsenic	mg/L	ND	0.0050	0.0011	10/08/21 17:05	
Barium	mg/L	ND	0.0050	0.00067	10/08/21 17:05	
Beryllium	mg/L	ND	0.00050	0.000054	10/08/21 17:05	
Boron	mg/L	ND	0.040	0.0086	10/08/21 17:05	
Cadmium	mg/L	ND	0.00050	0.00011	10/08/21 17:05	
Chromium	mg/L	ND	0.0050	0.0011	10/08/21 17:05	
Cobalt	mg/L	ND	0.0050	0.00039	10/08/21 17:05	
Lead	mg/L	ND	0.0010	0.00089	10/08/21 17:05	
Lithium	mg/L	ND	0.030	0.00073	10/08/21 17:05	
Molybdenum	mg/L	ND	0.010	0.00074	10/08/21 17:05	
Selenium	mg/L	ND	0.0050	0.0014	10/08/21 17:05	
Thallium	mg/L	ND	0.0010	0.00018	10/08/21 17:05	

LABORATORY CONTROL SAMPLE: 3415850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.093	93	80-120	
Lithium	mg/L	0.1	0.096	96	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Parameter	Units	3415851		3415852		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563226002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	110	75-125	2	20		
Arsenic	mg/L	0.0020J	0.1	0.1	0.10	0.10	103	102	75-125	0	20		
Barium	mg/L	0.031	0.1	0.1	0.13	0.13	97	101	75-125	3	20		
Beryllium	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Boron	mg/L	0.47	1	1	1.4	1.4	89	92	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.099	0.099	98	99	75-125	0	20		
Cobalt	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Lithium	mg/L	0.042	0.1	0.1	0.13	0.14	92	95	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	104	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.11	107	105	75-125	2	20		
Thallium	mg/L	ND	0.1	0.1	0.094	0.095	94	94	75-125	1	20		

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch:	652043	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004, 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

METHOD BLANK: 3419327 Matrix: Water

Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004, 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	10/12/21 09:39	

LABORATORY CONTROL SAMPLE: 3419328

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419329 3419330

Parameter	Units	92563226003		3419330		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0022	0.0021	85	80	75-125	5	20

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD

Pace Project No.: 92563226

QC Batch:	650109	Analysis Method:	SM 2540C-2011
QC Batch Method:	SM 2540C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004

METHOD BLANK: 3409662 Matrix: Water  
Associated Lab Samples: 92563226001, 92563226002, 92563226003, 92563226004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/21 18:57	

LABORATORY CONTROL SAMPLE: 3409663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	90-111	

SAMPLE DUPLICATE: 3409664

Parameter	Units	92563226001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	277	284	2	10	

SAMPLE DUPLICATE: 3409665

Parameter	Units	92563599002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	85.0	9	10	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 650392 Analysis Method: SM 2540C-2011  
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011

METHOD BLANK: 3411236 Matrix: Water  
Associated Lab Samples: 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/03/21 11:38	

LABORATORY CONTROL SAMPLE: 3411237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	90-111	

SAMPLE DUPLICATE: 3411239

Parameter	Units	92563761007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	181	181	0	10	

SAMPLE DUPLICATE: 3412138

Parameter	Units	92563761002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1560	1580	2	10	

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**QUALITY CONTROL DATA**

Project: BRANCH AP-BCD

Pace Project No.: 92563226

QC Batch: 650655

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563226012, 92563226013, 92563226014, 92563226015

METHOD BLANK: 3412467

Matrix: Water

Associated Lab Samples: 92563226012, 92563226013, 92563226014, 92563226015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/04/21 15:35	

LABORATORY CONTROL SAMPLE: 3412468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	406	102	90-111	

SAMPLE DUPLICATE: 3412470

Parameter	Units	92564073001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6620	5680	15	10	D6

SAMPLE DUPLICATE: 3412668

Parameter	Units	92563226012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1140	1130	1	10	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 651424 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563226003, 92563226004

METHOD BLANK: 3416272 Matrix: Water

Associated Lab Samples: 92563226003, 92563226004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/07/21 17:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/07/21 17:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/07/21 17:20	

LABORATORY CONTROL SAMPLE: 3416273

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: 3416274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.2	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416275 3416276

Parameter	Units	92563915005		3416275		3416276		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Alkalinity, Total as CaCO3	mg/L	ND	50	50	50	51.0	59.9	93	110	80-120	16	25

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416277 3416278

Parameter	Units	92563915006		3416277		3416278		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Alkalinity, Total as CaCO3	mg/L	25.0	50	50	50	72.9	73.7	96	97	80-120	1	25

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 651992      Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011      Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563226013, 92563226014, 92563226015

METHOD BLANK: 3419013      Matrix: Water  
Associated Lab Samples: 92563226013, 92563226014, 92563226015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/11/21 20:50	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/11/21 20:50	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/11/21 20:50	

LABORATORY CONTROL SAMPLE: 3419014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.5	105	80-120	

LABORATORY CONTROL SAMPLE: 3419015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.6	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419016      3419017

Parameter	Units	92564448001		3419016		3419017		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Alkalinity, Total as CaCO3	mg/L	82.1	50	50	114	113	65	61	80-120	2	25 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419018      3419019

Parameter	Units	92564448007		3419018		3419019		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Alkalinity, Total as CaCO3	mg/L	66.5	50	50	119	121	104	108	80-120	2	25

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 649415 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: 92563226001, 92563226002

METHOD BLANK: 3406128 Matrix: Water  
Associated Lab Samples: 92563226001, 92563226002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/27/21 06:19	
Fluoride	mg/L	ND	0.10	0.050	09/27/21 06:19	
Sulfate	mg/L	ND	1.0	0.50	09/27/21 06:19	

LABORATORY CONTROL SAMPLE: 3406129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.0	100	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	51.5	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406130 3406131

Parameter	Units	92562974010		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	6.1	50	50	59.7	60.7	107	109	90-110	2	10		
Fluoride	mg/L	0.071J	2.5	2.5	2.9	2.9	114	115	90-110	1	10	M1	
Sulfate	mg/L	258	50	50	303	305	91	94	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406132 3406133

Parameter	Units	92563313008		MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Chloride	mg/L	103	50	50	150	150	94	94	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	3.9	3.7	156	146	90-110	6	10	M1	
Sulfate	mg/L	433	50	50	482	481	98	96	90-110	0	10		

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 650118 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: 92563226003, 92563226004

METHOD BLANK: 3409685 Matrix: Water  
Associated Lab Samples: 92563226003, 92563226004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/21 12:38	
Fluoride	mg/L	ND	0.10	0.050	09/30/21 12:38	
Sulfate	mg/L	ND	1.0	0.50	09/30/21 12:38	

LABORATORY CONTROL SAMPLE: 3409686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	46.5	93	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.6	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409687 3409688

Parameter	Units	92563859001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	1030	50	50	1080	1090	110	129	90-110	1	10	M1	
Fluoride	mg/L	ND	2.5	2.5	1.5	1.6	62	63	90-110	2	10	M1	
Sulfate	mg/L	1290	50	50	1350	1370	124	150	90-110	1	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409689 3409690

Parameter	Units	92563226004		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	16.2	50	50	63.6	64.7	95	97	90-110	2	10		
Fluoride	mg/L	0.46	2.5	2.5	3.1	3.1	104	106	90-110	2	10		
Sulfate	mg/L	1170	50	50	1200	1200	65	48	90-110	1	10	M1	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch:	650124	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: 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

METHOD BLANK: 3409716 Matrix: Water  
Associated Lab Samples: 92563226005, 92563226006, 92563226007, 92563226008, 92563226009, 92563226010, 92563226011, 92563226012, 92563226013, 92563226014, 92563226015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/21 20:19	
Fluoride	mg/L	ND	0.10	0.050	09/30/21 20:19	
Sulfate	mg/L	ND	1.0	0.50	09/30/21 20:19	

LABORATORY CONTROL SAMPLE: 3409717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	46.9	94	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.9	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409718 3409719

Parameter	Units	92563761009		3409719		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	27.2	50	50	74.3	75.0	94	95	90-110	1	10
Fluoride	mg/L	1.6	2.5	2.5	4.3	4.4	107	110	90-110	2	10
Sulfate	mg/L	1670	50	50	1680	1680	26	13	90-110	0	10 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409720 3409721

Parameter	Units	92563226014		3409721		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	50	47.4	47.9	95	96	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	98	100	90-110	1	10
Sulfate	mg/L	ND	50	50	50.4	51.0	101	102	90-110	1	10

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 651968 Analysis Method: EPA 353.2 Rev 2.0 1993  
QC Batch Method: EPA 353.2 Rev 2.0 1993 Analysis Description: 353.2 Nitrate + Nitrite, preserved  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563226003

METHOD BLANK: 3418960 Matrix: Water  
Associated Lab Samples: 92563226003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.017	10/11/21 11:02	

LABORATORY CONTROL SAMPLE: 3418961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418962 3418963

Parameter	Units	92564311001		3418962		3418963		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Nitrogen, NO2 plus NO3	mg/L	0.058	2.5	2.5	2.4	2.4	95	95	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418964 3418965

Parameter	Units	92564312001		3418964		3418965		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Nitrogen, NO2 plus NO3	mg/L	0.052	2.5	2.5	1.8	1.8	69	68	90-110	0	10	M1	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD  
Pace Project No.: 92563226

QC Batch: 651970      Analysis Method: EPA 353.2 Rev 2.0 1993  
QC Batch Method: EPA 353.2 Rev 2.0 1993      Analysis Description: 353.2 Nitrate + Nitrite, preserved  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563226013

METHOD BLANK: 3418972      Matrix: Water  
Associated Lab Samples: 92563226013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.017	10/11/21 12:11	

LABORATORY CONTROL SAMPLE: 3418973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418974      3418975

Parameter	Units	92562907001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec				
Nitrogen, NO2 plus NO3	mg/L	43.3	2.5	2.5	46.1	46.0	112	106	90-110	0	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418976      3418977

Parameter	Units	92562911001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec				
Nitrogen, NO2 plus NO3	mg/L	ND	2.5	2.5	2.3	2.3	92	93	90-110	1	10		

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## QUALIFIERS

Project: BRANCH AP-BCD

Pace Project No.: 92563226

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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: BRANCH AP-BCD

Pace Project No.: 92563226

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563226001	BRGWC-45				
92563226002	BRGWC-47				
92563226003	BRGWC-50				
92563226005	BRGWC-25I				
92563226006	BRGWC-27I				
92563226007	BRGWC-29I				
92563226008	BRGWC-30I				
92563226009	BRGWC-32S				
92563226013	BRGWC-52I				
92563226001	BRGWC-45	EPA 3010A	651173	EPA 6010D	651248
92563226002	BRGWC-47	EPA 3010A	651173	EPA 6010D	651248
92563226003	BRGWC-50	EPA 3010A	651173	EPA 6010D	651248
92563226004	DUP-2	EPA 3010A	651173	EPA 6010D	651248
92563226005	BRGWC-25I	EPA 3010A	651173	EPA 6010D	651248
92563226006	BRGWC-27I	EPA 3010A	651173	EPA 6010D	651248
92563226007	BRGWC-29I	EPA 3010A	651173	EPA 6010D	651248
92563226008	BRGWC-30I	EPA 3010A	651173	EPA 6010D	651248
92563226009	BRGWC-32S	EPA 3010A	651173	EPA 6010D	651248
92563226010	EB-2	EPA 3010A	651173	EPA 6010D	651248
92563226011	FB-2	EPA 3010A	651173	EPA 6010D	651248
92563226012	DUP-3	EPA 3010A	651173	EPA 6010D	651248
92563226013	BRGWC-52I	EPA 3010A	651173	EPA 6010D	651248
92563226014	FB-3	EPA 3010A	651173	EPA 6010D	651248
92563226015	EB-3	EPA 3010A	651173	EPA 6010D	651248
92563226001	BRGWC-45	EPA 3005A	651350	EPA 6020B	651455
92563226002	BRGWC-47	EPA 3005A	651350	EPA 6020B	651455
92563226003	BRGWC-50	EPA 3005A	651350	EPA 6020B	651455
92563226004	DUP-2	EPA 3005A	651350	EPA 6020B	651455
92563226005	BRGWC-25I	EPA 3005A	651350	EPA 6020B	651455
92563226006	BRGWC-27I	EPA 3005A	651350	EPA 6020B	651455
92563226007	BRGWC-29I	EPA 3005A	651350	EPA 6020B	651455
92563226008	BRGWC-30I	EPA 3005A	651350	EPA 6020B	651455
92563226009	BRGWC-32S	EPA 3005A	651350	EPA 6020B	651455
92563226010	EB-2	EPA 3005A	651350	EPA 6020B	651455
92563226011	FB-2	EPA 3005A	651350	EPA 6020B	651455
92563226012	DUP-3	EPA 3005A	651350	EPA 6020B	651455
92563226013	BRGWC-52I	EPA 3005A	651350	EPA 6020B	651455
92563226014	FB-3	EPA 3005A	651350	EPA 6020B	651455
92563226015	EB-3	EPA 3005A	651350	EPA 6020B	651455
92563226001	BRGWC-45	EPA 7470A	652043	EPA 7470A	652216
92563226002	BRGWC-47	EPA 7470A	652043	EPA 7470A	652216
92563226003	BRGWC-50	EPA 7470A	652043	EPA 7470A	652216
92563226004	DUP-2	EPA 7470A	652043	EPA 7470A	652216
92563226005	BRGWC-25I	EPA 7470A	652043	EPA 7470A	652216
92563226006	BRGWC-27I	EPA 7470A	652043	EPA 7470A	652216
92563226007	BRGWC-29I	EPA 7470A	652043	EPA 7470A	652216
92563226008	BRGWC-30I	EPA 7470A	652043	EPA 7470A	652216

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD

Pace Project No.: 92563226

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563226009	BRGWC-32S	EPA 7470A	652043	EPA 7470A	652216
92563226010	EB-2	EPA 7470A	652043	EPA 7470A	652216
92563226011	FB-2	EPA 7470A	652043	EPA 7470A	652216
92563226012	DUP-3	EPA 7470A	652043	EPA 7470A	652216
92563226013	BRGWC-52I	EPA 7470A	652043	EPA 7470A	652216
92563226014	FB-3	EPA 7470A	652043	EPA 7470A	652216
92563226015	EB-3	EPA 7470A	652043	EPA 7470A	652216
92563226001	BRGWC-45	SM 2540C-2011	650109		
92563226002	BRGWC-47	SM 2540C-2011	650109		
92563226003	BRGWC-50	SM 2540C-2011	650109		
92563226004	DUP-2	SM 2540C-2011	650109		
92563226005	BRGWC-25I	SM 2540C-2011	650392		
92563226006	BRGWC-27I	SM 2540C-2011	650392		
92563226007	BRGWC-29I	SM 2540C-2011	650392		
92563226008	BRGWC-30I	SM 2540C-2011	650392		
92563226009	BRGWC-32S	SM 2540C-2011	650392		
92563226010	EB-2	SM 2540C-2011	650392		
92563226011	FB-2	SM 2540C-2011	650392		
92563226012	DUP-3	SM 2540C-2011	650655		
92563226013	BRGWC-52I	SM 2540C-2011	650655		
92563226014	FB-3	SM 2540C-2011	650655		
92563226015	EB-3	SM 2540C-2011	650655		
92563226003	BRGWC-50	SM 2320B-2011	651424		
92563226004	DUP-2	SM 2320B-2011	651424		
92563226013	BRGWC-52I	SM 2320B-2011	651992		
92563226014	FB-3	SM 2320B-2011	651992		
92563226015	EB-3	SM 2320B-2011	651992		
92563226001	BRGWC-45	EPA 300.0 Rev 2.1 1993	649415		
92563226002	BRGWC-47	EPA 300.0 Rev 2.1 1993	649415		
92563226003	BRGWC-50	EPA 300.0 Rev 2.1 1993	650118		
92563226004	DUP-2	EPA 300.0 Rev 2.1 1993	650118		
92563226005	BRGWC-25I	EPA 300.0 Rev 2.1 1993	650124		
92563226006	BRGWC-27I	EPA 300.0 Rev 2.1 1993	650124		
92563226007	BRGWC-29I	EPA 300.0 Rev 2.1 1993	650124		
92563226008	BRGWC-30I	EPA 300.0 Rev 2.1 1993	650124		
92563226009	BRGWC-32S	EPA 300.0 Rev 2.1 1993	650124		
92563226010	EB-2	EPA 300.0 Rev 2.1 1993	650124		
92563226011	FB-2	EPA 300.0 Rev 2.1 1993	650124		
92563226012	DUP-3	EPA 300.0 Rev 2.1 1993	650124		
92563226013	BRGWC-52I	EPA 300.0 Rev 2.1 1993	650124		
92563226014	FB-3	EPA 300.0 Rev 2.1 1993	650124		
92563226015	EB-3	EPA 300.0 Rev 2.1 1993	650124		
92563226003	BRGWC-50	EPA 353.2 Rev 2.0 1993	651968		
92563226013	BRGWC-52I	EPA 353.2 Rev 2.0 1993	651970		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD

Pace Project No.: 92563226

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
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### REPORT OF LABORATORY ANALYSIS

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**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name: GA POWER

Project #: **WO# : 92563226**

Courier:  Commercial  Fed Ex  UPS  USPS  Other:  Client



Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 9/23/21 KAW

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  IR Gun ID: IHR230 Type of Ice:  Wet  Blue  None

Biological Tissue Frozen?  Yes  No  N/A

Cooler Temp: 1.2 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): 1.3

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. <u>10 Day</u>
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:	<u>W</u>	
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: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020  
Page 2 of 2

Document No.:  
F-CAR-CS-033-Rev.07

Issuing Authority:  
Pace Carolinas Quality Office

\*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

Project # **WO# : 92563226**

PM: NMG

Due Date: 10/07/21

CLIENT: GA-GA Power

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)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFLU-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1																													
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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.





	Document Name: <b>Sample Condition Upon Receipt(SCUR)</b>	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

<b>Sample Condition Upon Receipt</b>	Client Name: <u>Georgia Power</u>	Project #:
	Courier: <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Fed Ex <input checked="" type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Other: _____	

Custody Seal Present?  Yes  No      Seals Intact?  Yes  No

Date/Initials Person Examining Contents: MT 9/28/21

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Thermometer:  IR Gun ID: 230      Type of Ice:  Wet  Blue  None

Yes  No  N/A

Cooler Temp: 3.4      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): 3.5

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

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 checked="" type="checkbox"/> No <input 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: <u>WT</u>		
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

**CLIENT NOTIFICATION/RESOLUTION**

Lot ID of split containers:

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

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

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

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

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

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

**Project #**

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

**\*\*Bottom half of box is to list number of bottles**


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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



	Document Name: <b>Sample Condition Upon Receipt(SCUR)</b>	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: <b>F-CAR-CS-033-Rev.07</b>	Issuing Authority: Pace Carolinas Quality Office

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

<b>Sample Condition Upon Receipt</b>	Client Name: <b>G-A Power</b>	Project #:
	Courier: <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input checked="" type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Other:	

Custody Seal Present?  Yes  No    Seals Intact?  Yes  No

Date/Initials Person Examining Contents: **9/29/21**

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A **COIT**

Thermometer:  IR Gun ID: **083**    Type of Ice:  Wet  Blue  None

Cooler Temp: **4.3**    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): **4.3**

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:	<b>W</b>		
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: \_\_\_\_\_

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

**Project #**

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

**\*\*Bottom half of box is to list number of bottles**

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 2N Acetate & NaOH (>9)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).



November 11, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCD DELIN PIEZO RADS  
Pace Project No.: 92563753

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 28, 2021 and September 29, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCD DELIN PIEZO RADS  
Pace Project No.: 92563753

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563753001	PZ-51S	Water	09/27/21 15:38	09/28/21 10:18
92563753002	PZ-51I	Water	09/27/21 17:33	09/28/21 10:18
92563753003	PZ-61I	Water	09/27/21 16:43	09/28/21 10:18
92563753004	PZ-51D	Water	09/28/21 11:10	09/29/21 11:57
92563753005	PZ-57I	Water	09/28/21 14:29	09/29/21 11:57
92563753006	PZ-58I	Water	09/28/21 13:15	09/29/21 11:57
92563753007	PZ-44	Water	09/28/21 14:50	09/29/21 11:57
92563753008	PZ-50D	Water	09/28/21 09:24	09/29/21 11:57
92563753009	PZ-60I	Water	09/28/21 12:02	09/29/21 11:57

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD DELIN PIEZO RADS  
Pace Project No.: 92563753

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563753001	PZ-51S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753002	PZ-51I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753003	PZ-61I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753004	PZ-51D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753005	PZ-57I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753006	PZ-58I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753007	PZ-44	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753008	PZ-50D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563753009	PZ-60I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO RADS  
Pace Project No.: 92563753

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563753001</b>	<b>PZ-51S</b>					
EPA 9315	Radium-226	0.00107 ± 0.0597 (0.167) C:90% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	-0.0457 ± 0.651 (1.49) C:73% T:85%	pCi/L		11/02/21 14:11	
Total Radium Calculation	Total Radium	0.00107 ± 0.711 (1.66)	pCi/L		11/10/21 17:46	
<b>92563753002</b>	<b>PZ-51I</b>					
EPA 9315	Radium-226	0.160 ± 0.113 (0.180) C:78% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	0.611 ± 0.575 (1.19) C:76% T:87%	pCi/L		11/02/21 14:11	
Total Radium Calculation	Total Radium	0.771 ± 0.688 (1.37)	pCi/L		11/10/21 17:46	
<b>92563753003</b>	<b>PZ-61I</b>					
EPA 9315	Radium-226	0.418 ± 0.169 (0.185) C:85% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	0.717 ± 0.612 (1.26) C:81% T:85%	pCi/L		11/02/21 14:11	
Total Radium Calculation	Total Radium	1.14 ± 0.781 (1.45)	pCi/L		11/10/21 17:46	
<b>92563753004</b>	<b>PZ-51D</b>					
EPA 9315	Radium-226	0.658 ± 0.206 (0.155) C:90% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	1.23 ± 0.656 (1.22) C:80% T:86%	pCi/L		11/02/21 14:11	
Total Radium Calculation	Total Radium	1.89 ± 0.862 (1.38)	pCi/L		11/10/21 17:46	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO RADS  
 Pace Project No.: 92563753

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563753005</b>	<b>PZ-57I</b>					
EPA 9315	Radium-226	0.0352 ± 0.0974 (0.235) C:76% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	-0.138 ± 0.442 (1.05) C:75% T:88%	pCi/L		11/02/21 13:52	
Total Radium Calculation	Total Radium	0.0352 ± 0.539 (1.29)	pCi/L		11/10/21 17:46	
<b>92563753006</b>	<b>PZ-58I</b>					
EPA 9315	Radium-226	0.435 ± 0.179 (0.203) C:78% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	1.22 ± 0.500 (0.798) C:78% T:87%	pCi/L		11/02/21 12:46	
Total Radium Calculation	Total Radium	1.66 ± 0.679 (1.00)	pCi/L		11/10/21 17:46	
<b>92563753007</b>	<b>PZ-44</b>					
EPA 9315	Radium-226	0.0825 ± 0.0855 (0.163) C:85% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	0.443 ± 0.358 (0.712) C:73% T:87%	pCi/L		11/02/21 14:17	
Total Radium Calculation	Total Radium	0.526 ± 0.444 (0.875)	pCi/L		11/10/21 17:46	
<b>92563753008</b>	<b>PZ-50D</b>					
EPA 9315	Radium-226	0.346 ± 0.157 (0.196) C:81% T:NA	pCi/L		11/10/21 15:48	
EPA 9320	Radium-228	0.701 ± 0.405 (0.750) C:76% T:89%	pCi/L		11/02/21 14:17	
Total Radium Calculation	Total Radium	1.05 ± 0.562 (0.946)	pCi/L		11/10/21 17:46	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563753009</b>	<b>PZ-60I</b>					
EPA 9315	Radium-226	0.702 ± 0.221 (0.187)	pCi/L		11/10/21 16:02	
EPA 9320	Radium-228	C:88% T:NA 2.09 ± 0.591 (0.636)	pCi/L		11/02/21 14:17	
Total Radium Calculation	Total Radium	C:76% T:88% 2.79 ± 0.812 (0.823)	pCi/L		11/10/21 17:46	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-51S**      **Lab ID: 92563753001**      Collected: 09/27/21 15:38      Received: 09/28/21 10:18      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.00107 ± 0.0597 (0.167)</b> <b>C:90% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.0457 ± 0.651 (1.49)</b> <b>C:73% T:85%</b>	pCi/L	11/02/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.00107 ± 0.711 (1.66)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-511**      **Lab ID: 92563753002**      Collected: 09/27/21 17:33      Received: 09/28/21 10:18      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.160 ± 0.113 (0.180)</b> <b>C:78% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.611 ± 0.575 (1.19)</b> <b>C:76% T:87%</b>	pCi/L	11/02/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.771 ± 0.688 (1.37)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-611**      **Lab ID: 92563753003**      Collected: 09/27/21 16:43      Received: 09/28/21 10:18      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.418 ± 0.169 (0.185)</b> <b>C:85% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.717 ± 0.612 (1.26)</b> <b>C:81% T:85%</b>	pCi/L	11/02/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.14 ± 0.781 (1.45)</b>	pCi/L	11/10/21 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-51D**      **Lab ID: 92563753004**      Collected: 09/28/21 11:10      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.658 ± 0.206 (0.155)</b> <b>C:90% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.23 ± 0.656 (1.22)</b> <b>C:80% T:86%</b>	pCi/L	11/02/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.89 ± 0.862 (1.38)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-571**      **Lab ID: 92563753005**      Collected: 09/28/21 14:29      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0352 ± 0.0974 (0.235)</b> <b>C:76% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.138 ± 0.442 (1.05)</b> <b>C:75% T:88%</b>	pCi/L	11/02/21 13:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.0352 ± 0.539 (1.29)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-581**      **Lab ID: 92563753006**      Collected: 09/28/21 13:15      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.435 ± 0.179 (0.203)</b> <b>C:78% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.22 ± 0.500 (0.798)</b> <b>C:78% T:87%</b>	pCi/L	11/02/21 12:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.66 ± 0.679 (1.00)</b>	pCi/L	11/10/21 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-44**      **Lab ID: 92563753007**      Collected: 09/28/21 14:50      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0825 ± 0.0855 (0.163)</b> <b>C:85% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.443 ± 0.358 (0.712)</b> <b>C:73% T:87%</b>	pCi/L	11/02/21 14:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.526 ± 0.444 (0.875)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-50D**      **Lab ID: 92563753008**      Collected: 09/28/21 09:24      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.346 ± 0.157 (0.196)</b> <b>C:81% T:NA</b>	pCi/L	11/10/21 15:48	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.701 ± 0.405 (0.750)</b> <b>C:76% T:89%</b>	pCi/L	11/02/21 14:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.05 ± 0.562 (0.946)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

**Sample: PZ-601**      **Lab ID: 92563753009**      Collected: 09/28/21 12:02      Received: 09/29/21 11:57      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.702 ± 0.221 (0.187)</b> <b>C:88% T:NA</b>	pCi/L	11/10/21 16:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>2.09 ± 0.591 (0.636)</b> <b>C:76% T:88%</b>	pCi/L	11/02/21 14:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.79 ± 0.812 (0.823)</b>	pCi/L	11/10/21 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

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QC Batch:	468246	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563753001, 92563753002, 92563753003, 92563753004, 92563753005, 92563753006, 92563753007, 92563753008, 92563753009

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METHOD BLANK: 2260780 Matrix: Water

Associated Lab Samples: 92563753001, 92563753002, 92563753003, 92563753004, 92563753005, 92563753006, 92563753007, 92563753008, 92563753009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0444 ± 0.0346 (0.179) C:69% T:NA	pCi/L	11/10/21 15:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

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QC Batch:	469297	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563753001, 92563753002, 92563753003, 92563753004, 92563753005, 92563753006, 92563753007, 92563753008, 92563753009

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METHOD BLANK: 2266088 Matrix: Water

Associated Lab Samples: 92563753001, 92563753002, 92563753003, 92563753004, 92563753005, 92563753006, 92563753007, 92563753008, 92563753009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.131 ± 0.351 (0.784) C:71% T:83%	pCi/L	11/02/21 11:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH AP-BCD DELIN PIEZO RADS

Pace Project No.: 92563753

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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.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD DELIN PIEZO RADIS  
Pace Project No.: 92563753

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563753001	PZ-51S	EPA 9315	468246		
92563753002	PZ-51I	EPA 9315	468246		
92563753003	PZ-61I	EPA 9315	468246		
92563753004	PZ-51D	EPA 9315	468246		
92563753005	PZ-57I	EPA 9315	468246		
92563753006	PZ-58I	EPA 9315	468246		
92563753007	PZ-44	EPA 9315	468246		
92563753008	PZ-50D	EPA 9315	468246		
92563753009	PZ-60I	EPA 9315	468246		
92563753001	PZ-51S	EPA 9320	469297		
92563753002	PZ-51I	EPA 9320	469297		
92563753003	PZ-61I	EPA 9320	469297		
92563753004	PZ-51D	EPA 9320	469297		
92563753005	PZ-57I	EPA 9320	469297		
92563753006	PZ-58I	EPA 9320	469297		
92563753007	PZ-44	EPA 9320	469297		
92563753008	PZ-50D	EPA 9320	469297		
92563753009	PZ-60I	EPA 9320	469297		
92563753001	PZ-51S	Total Radium Calculation	472087		
92563753002	PZ-51I	Total Radium Calculation	472087		
92563753003	PZ-61I	Total Radium Calculation	472087		
92563753004	PZ-51D	Total Radium Calculation	472087		
92563753005	PZ-57I	Total Radium Calculation	472087		
92563753006	PZ-58I	Total Radium Calculation	472087		
92563753007	PZ-44	Total Radium Calculation	472087		
92563753008	PZ-50D	Total Radium Calculation	472087		
92563753009	PZ-60I	Total Radium Calculation	472087		

### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name:

Georgia Power

Project

**WO# : 92563753**

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



92563753

Custody Seal Present?  Yes  No      Seals Intact?  Yes  No

Date/Initials Person Examining Contents: MT 9/28/21

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Thermometer:  IR Gun ID: 230      Type of Ice:  Wet  Blue  None

Yes  No  N/A

Cooler Temp: 3.4      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): 3.5

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 checked="" type="checkbox"/> No <input 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: <u>WT</u>			
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

CLIENT NOTIFICATION/RESOLUTION

Lot ID of split containers:

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

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

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



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020  
Page 2 of 2

Document No.:  
F-CAR-CS-033-Rev.07

Issuing Authority:  
Pace Carolinas Quality Office

\*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

Project #

**WO# : 92563753**

PM: NMG

Due Date: 10/19/21

CLIENT: GA-GA Power

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1																													
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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Requested Client Information: Georgia Power - East Construction Services, 1100 Middlebridge Rd, Marietta, GA 30067, (404) 566-7239, Fax (404) 566-7239, Requested Date: 10 May 1A1

Section B Requested Project Information: Report To: Jon Acraman, Copy To: Collier, Project Name: River Branch AP-SCD Delineation, Project # 166035421

Section C Invoice Information: 2100 Peachtree St NE, Atlanta, GA 30309, Company Name: ACSI, Project Manager: Kevin Herring, Page Prefix #

Page: 1 of 1

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9, -) Sample IDs must be unique</small>	DATE	TIME	SAMPLE TEMP AT COLLECTION	PRESERVATIVES							ANALYSES TEST	Request Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	PH	
					Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol					Other
1	PZ 518	9/27/2021	15:38													
2	PZ 511	9/27/2021	17:33													
3	PZ 611	9/27/2021	16:43													
4																
5																
6																
7																
8																
9																
10																
11																
12																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACQUIRED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Jude Wegerspack	9-28-21	08:35	Elaine Coddle	9/28/2021	8:35	Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)

Jude Wegerspack / Elaine Coddle

DATE Signed: 9-28-21

# Quality Control Sample Performance Assessment

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**



Test: Ra-226  
Analyst: JJY  
Date: 10/26/2021  
Worklist: 63152  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2280780
MB concentration:	-0.044
MIB Counting Uncertainty:	0.034
MB MDC:	0.179
MB Numerical Performance Indicator:	-2.56
MB Status vs. Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS(Y or N)?	Y
Count Date:	11/10/2021	LCS63152	11/10/2021
Spike ID:	19-033	LCS63152	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.032		24.032
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.517		0.517
Target Conc. (pCi/L, g, F):	4.681		4.650
Uncertainty (Calculated):	0.056		0.056
Result (pCi/L, g, F):	5.478		5.141
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.549		0.630
Numerical Performance Indicator:	2.83		1.52
Percent Recovery:	117.02%		110.56%
Status vs Numerical Indicator:	N/A		N/A
Status vs Recovery:	Pass		Pass
Upper % Recovery Limits:	125%		125%
Lower % Recovery Limits:	75%		75%

Duplicate Sample Assessment		LCS(Y or N)?	Y
Sample I.D.:	92563753001	LCS63152	92563753001
Duplicate Sample I.D.:	92563753001DUP	LCS63152	92563753001DUP
Sample Result (pCi/L, g, F):	0.001		0.001
Sample Result Counting Uncertainty (pCi/L, g, F):	0.060		0.060
Sample Duplicate Result (pCi/L, g, F):	0.135		0.135
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.107		0.107
Are sample and/or duplicate results below RL?	NO		NO
Duplicate Numerical Performance Indicator:	-2.135		-2.135
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.68%		5.68%
Duplicate Status vs Numerical Indicator:	N/A		N/A
Duplicate Status vs RPD:	Pass		Pass
% RPD Limit:	25%		25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision.

*Results LMDG, N/A*  
*10/26/21*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

# Quality Control Sample Performance Assessment



*Analyst Must Manually Enter All Fields Highlighted in Yellow.*

Test: Ra-228  
Analyst: VAL  
Date: 10/28/2021  
Worklist: 63313  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2266088
MB concentration:	0.131
MB 2 Sigma CSU:	0.351
MB MDC:	0.784
MB Numerical Performance Indicator:	0.73
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	Y	N
Count Date:	11/2/2021	LCS/D63313
Spike I.D.:	11/2/2021	11/2/2021
Decay Corrected Spike Concentration (pCi/mL):	21-029	21-029
Volume Used (mL):	37.612	37.612
Aliquot Volume (L, g, F):	0.10	0.10
Target Conc. (pCi/L, g, F):	0.814	0.814
Uncertainty (Calculated):	4.623	4.646
Result (pCi/L, g, F):	0.227	0.228
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	4.722	5.645
Numerical Performance Indicator:	1.041	1.208
Percent Recovery:	0.18	1.59
Status vs Numerical Indicator:	102.13%	121.51%
Upper % Recovery Limits:	N/A	N/A
Lower % Recovery Limits:	Pass	Pass
	135%	135%
	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS63313
Duplicate Sample I.D.:	LCS/D63313
Sample Result (pCi/L, g, F):	4.722
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.041
Sample Duplicate Result (pCi/L, g, F):	5.645
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.208
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.135
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	17.32%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*24/13/21*  
*AM/11/20*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:



October 22, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Dear Joju Abraham:

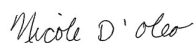
Enclosed are the analytical results for sample(s) received by the laboratory between September 28, 2021 and September 29, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where 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 - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Company  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
Louisiana/NELAP Certification # LA170028  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Virginia/VELAP Certification #: 460221

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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 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: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563761001	PZ-51S	Water	09/27/21 15:38	09/28/21 10:18
92563761002	PZ-51I	Water	09/27/21 17:33	09/28/21 10:18
92563761003	PZ-61I	Water	09/27/21 16:43	09/28/21 10:18
92563761004	PZ-51D	Water	09/28/21 11:10	09/29/21 11:57
92563761005	PZ-57I	Water	09/28/21 14:29	09/29/21 11:57
92563761006	PZ-58I	Water	09/28/21 13:15	09/29/21 11:57
92563761007	PZ-44	Water	09/28/21 14:50	09/29/21 11:57
92563761008	PZ-50D	Water	09/28/21 09:24	09/29/21 11:57
92563761009	PZ-60I	Water	09/28/21 12:02	09/29/21 11:57

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563761001	PZ-51S	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
92563761002	PZ-51I	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
92563761003	PZ-61I	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
92563761004	PZ-51D	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
92563761005	PZ-57I	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
92563761006	PZ-58I	EPA 6010D	DRB	7
		EPA 6020B	KH	13

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
<b>92563761007</b>	<b>PZ-44</b>	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
<b>92563761008</b>	<b>PZ-50D</b>	EPA 6010D	DRB	7
		EPA 6020B	KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1
<b>92563761009</b>	<b>PZ-60I</b>	EPA 6010D	DRB	7
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		SM 2320B-2011	SMK	3
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 353.2 Rev 2.0 1993	KDF1	1

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte  
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563761001</b>	<b>PZ-51S</b>					
	Performed by	CUSTOME			09/28/21 17:34	
		R				
	pH	6.04	Std. Units		09/28/21 17:34	
EPA 6010D	Manganese	1.3	mg/L	0.040	10/07/21 18:46	
EPA 6010D	Potassium	2.2	mg/L	0.20	10/07/21 18:46	
EPA 6010D	Sodium	11.4	mg/L	1.0	10/07/21 18:46	M1
EPA 6010D	Calcium	7.5	mg/L	1.0	10/07/21 18:46	
EPA 6010D	Magnesium	8.4	mg/L	0.050	10/07/21 18:46	
EPA 6010D	Hardness, Total(SM 2340B)	53.2	mg/L	2.7	10/07/21 18:46	
EPA 6020B	Barium	0.025	mg/L	0.0050	10/08/21 20:07	
EPA 6020B	Cobalt	0.0022J	mg/L	0.0050	10/08/21 20:07	
SM 2540C-2011	Total Dissolved Solids	88.0	mg/L	10.0	09/30/21 19:01	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	68.7	mg/L	5.0	10/07/21 19:25	
SM 2320B-2011	Alkalinity, Total as CaCO3	68.7	mg/L	5.0	10/07/21 19:25	
EPA 300.0 Rev 2.1 1993	Chloride	3.8	mg/L	1.0	09/30/21 17:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.072J	mg/L	0.10	09/30/21 17:24	
EPA 353.2 Rev 2.0 1993	Nitrogen, NO2 plus NO3	1.8	mg/L	0.040	10/11/21 11:32	
<b>92563761002</b>	<b>PZ-51I</b>					
	Performed by	CUSTOME			09/28/21 17:34	
		R				
	pH	5.34	Std. Units		09/28/21 17:34	
EPA 6010D	Iron	0.031J	mg/L	0.040	10/07/21 19:15	
EPA 6010D	Manganese	37.5	mg/L	0.040	10/07/21 19:15	
EPA 6010D	Potassium	10.6	mg/L	0.20	10/07/21 19:15	
EPA 6010D	Sodium	45.8	mg/L	1.0	10/07/21 19:15	
EPA 6010D	Calcium	187	mg/L	1.0	10/07/21 19:15	
EPA 6010D	Magnesium	121	mg/L	0.050	10/07/21 19:15	
EPA 6010D	Hardness, Total(SM 2340B)	963	mg/L	2.7	10/07/21 19:15	
EPA 6020B	Antimony	0.0012J	mg/L	0.0030	10/08/21 20:30	
EPA 6020B	Barium	0.014	mg/L	0.0050	10/08/21 20:30	
EPA 6020B	Beryllium	0.000071J	mg/L	0.00050	10/08/21 20:30	
EPA 6020B	Boron	0.39	mg/L	0.040	10/08/21 20:30	
EPA 6020B	Cadmium	0.0031	mg/L	0.00050	10/08/21 20:30	
EPA 6020B	Cobalt	0.020	mg/L	0.0050	10/08/21 20:30	
EPA 6020B	Lithium	0.020J	mg/L	0.030	10/08/21 20:30	
SM 2540C-2011	Total Dissolved Solids	1560	mg/L	50.0	10/03/21 11:38	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	22.2	mg/L	5.0	10/07/21 19:42	
SM 2320B-2011	Alkalinity, Total as CaCO3	22.2	mg/L	5.0	10/07/21 19:42	
EPA 300.0 Rev 2.1 1993	Chloride	9.4	mg/L	1.0	09/30/21 17:40	
EPA 300.0 Rev 2.1 1993	Sulfate	933	mg/L	21.0	10/01/21 05:34	
<b>92563761003</b>	<b>PZ-61I</b>					
	Performed by	CUSTOME			09/28/21 17:34	
		R				
	pH	5.02	Std. Units		09/28/21 17:34	
EPA 6010D	Manganese	118	mg/L	0.40	10/08/21 12:31	
EPA 6010D	Iron	4.5	mg/L	0.040	10/07/21 19:20	
EPA 6010D	Potassium	7.0	mg/L	0.20	10/07/21 19:20	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563761003</b>	<b>PZ-61I</b>					
EPA 6010D	Sodium	66.1	mg/L	1.0	10/07/21 19:20	
EPA 6010D	Calcium	230	mg/L	1.0	10/07/21 19:20	
EPA 6010D	Magnesium	180	mg/L	0.050	10/07/21 19:20	
EPA 6010D	Hardness, Total(SM 2340B)	1310	mg/L	2.7	10/07/21 19:20	
EPA 6020B	Arsenic	0.0023J	mg/L	0.0050	10/08/21 20:36	
EPA 6020B	Barium	0.029	mg/L	0.0050	10/08/21 20:36	
EPA 6020B	Beryllium	0.0017	mg/L	0.00050	10/08/21 20:36	
EPA 6020B	Boron	0.26	mg/L	0.040	10/08/21 20:36	
EPA 6020B	Cadmium	0.00081	mg/L	0.00050	10/08/21 20:36	
EPA 6020B	Chromium	0.0077	mg/L	0.0050	10/08/21 20:36	
EPA 6020B	Cobalt	0.45	mg/L	0.0050	10/08/21 20:36	
EPA 6020B	Lead	0.0019	mg/L	0.0010	10/08/21 20:36	
EPA 6020B	Lithium	0.0095J	mg/L	0.030	10/08/21 20:36	
EPA 6020B	Selenium	0.0079	mg/L	0.0050	10/08/21 20:36	
SM 2540C-2011	Total Dissolved Solids	2100	mg/L	100	10/03/21 11:38	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	11.3	mg/L	5.0	10/07/21 19:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	11.3	mg/L	5.0	10/07/21 19:48	
EPA 300.0 Rev 2.1 1993	Chloride	20.0	mg/L	1.0	09/30/21 17:55	
EPA 300.0 Rev 2.1 1993	Fluoride	0.067J	mg/L	0.10	09/30/21 17:55	
EPA 300.0 Rev 2.1 1993	Sulfate	1420	mg/L	32.0	10/01/21 05:50	
<b>92563761004</b>	<b>PZ-51D</b>					
	Performed by	CUSTOME			09/29/21 13:10	
		R				
	pH	7.18	Std. Units		09/29/21 13:10	
EPA 6010D	Iron	1.7	mg/L	0.040	10/07/21 19:25	
EPA 6010D	Manganese	1.1	mg/L	0.040	10/07/21 19:25	
EPA 6010D	Potassium	10	mg/L	0.20	10/07/21 19:25	
EPA 6010D	Sodium	39.0	mg/L	1.0	10/07/21 19:25	
EPA 6010D	Calcium	113	mg/L	1.0	10/07/21 19:25	
EPA 6010D	Magnesium	28.2	mg/L	0.050	10/07/21 19:25	
EPA 6010D	Hardness, Total(SM 2340B)	399	mg/L	2.7	10/07/21 19:25	
EPA 6020B	Barium	0.057	mg/L	0.0050	10/08/21 20:53	
EPA 6020B	Boron	0.023J	mg/L	0.040	10/08/21 20:53	
EPA 6020B	Lithium	0.0096J	mg/L	0.030	10/08/21 20:53	
EPA 6020B	Molybdenum	0.0029J	mg/L	0.010	10/08/21 20:53	
SM 2540C-2011	Total Dissolved Solids	650	mg/L	20.0	10/03/21 11:39	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	144	mg/L	5.0	10/11/21 22:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	144	mg/L	5.0	10/11/21 22:43	
EPA 300.0 Rev 2.1 1993	Chloride	12.8	mg/L	1.0	09/30/21 18:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.26	mg/L	0.10	09/30/21 18:59	
EPA 300.0 Rev 2.1 1993	Sulfate	294	mg/L	7.0	10/01/21 06:05	
<b>92563761005</b>	<b>PZ-57I</b>					
	Performed by	CUSTOME			09/29/21 13:10	
		R				
	pH	5.37	Std. Units		09/29/21 13:10	
EPA 6010D	Iron	2.6	mg/L	0.040	10/07/21 19:29	
EPA 6010D	Manganese	12.2	mg/L	0.040	10/07/21 19:29	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563761005</b>	<b>PZ-57I</b>					
EPA 6010D	Potassium	4.3	mg/L	0.20	10/07/21 19:29	
EPA 6010D	Sodium	18.2	mg/L	1.0	10/07/21 19:29	
EPA 6010D	Calcium	51.1	mg/L	1.0	10/07/21 19:29	
EPA 6010D	Magnesium	31.3	mg/L	0.050	10/07/21 19:29	
EPA 6010D	Hardness, Total(SM 2340B)	257	mg/L	2.7	10/07/21 19:29	
EPA 6020B	Barium	0.022	mg/L	0.0050	10/08/21 20:59	
EPA 6020B	Beryllium	0.00031J	mg/L	0.00050	10/08/21 20:59	
EPA 6020B	Boron	0.48	mg/L	0.040	10/08/21 20:59	
EPA 6020B	Cadmium	0.00064	mg/L	0.00050	10/08/21 20:59	
EPA 6020B	Cobalt	0.055	mg/L	0.0050	10/08/21 20:59	
EPA 6020B	Lithium	0.018J	mg/L	0.030	10/08/21 20:59	
SM 2540C-2011	Total Dissolved Solids	542	mg/L	10.0	10/03/21 11:39	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	10.1	mg/L	5.0	10/11/21 22:53	
SM 2320B-2011	Alkalinity, Total as CaCO3	10.1	mg/L	5.0	10/11/21 22:53	
EPA 300.0 Rev 2.1 1993	Chloride	5.9	mg/L	1.0	09/30/21 19:15	
EPA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	09/30/21 19:15	
EPA 300.0 Rev 2.1 1993	Sulfate	259	mg/L	6.0	10/01/21 06:21	
<b>92563761006</b>	<b>PZ-58I</b>					
	Performed by	CUSTOME			09/29/21 13:10	
		R				
	pH	4.00	Std. Units		09/29/21 13:10	
EPA 6010D	Iron	39.8	mg/L	0.040	10/07/21 19:34	
EPA 6010D	Manganese	20.2	mg/L	0.040	10/07/21 19:34	
EPA 6010D	Potassium	7.0	mg/L	0.20	10/07/21 19:34	
EPA 6010D	Sodium	30.3	mg/L	1.0	10/07/21 19:34	
EPA 6010D	Calcium	108	mg/L	1.0	10/07/21 19:34	
EPA 6010D	Magnesium	58.9	mg/L	0.050	10/07/21 19:34	
EPA 6010D	Hardness, Total(SM 2340B)	513	mg/L	2.7	10/07/21 19:34	
EPA 6020B	Barium	0.017	mg/L	0.0050	10/08/21 21:04	
EPA 6020B	Beryllium	0.025	mg/L	0.00050	10/08/21 21:04	
EPA 6020B	Boron	0.36	mg/L	0.040	10/08/21 21:04	
EPA 6020B	Cadmium	0.0042	mg/L	0.00050	10/08/21 21:04	
EPA 6020B	Cobalt	0.39	mg/L	0.0050	10/08/21 21:04	
EPA 6020B	Lithium	0.041	mg/L	0.030	10/08/21 21:04	
EPA 6020B	Selenium	0.0034J	mg/L	0.0050	10/08/21 21:04	
SM 2540C-2011	Total Dissolved Solids	1120	mg/L	20.0	10/03/21 11:39	
EPA 300.0 Rev 2.1 1993	Chloride	9.6	mg/L	1.0	09/30/21 19:31	
EPA 300.0 Rev 2.1 1993	Fluoride	0.97	mg/L	0.10	09/30/21 19:31	
EPA 300.0 Rev 2.1 1993	Sulfate	628	mg/L	14.0	10/01/21 06:37	
<b>92563761007</b>	<b>PZ-44</b>					
	Performed by	CUSTOME			09/29/21 13:10	
		R				
	pH	6.22	Std. Units		09/29/21 13:10	
EPA 6010D	Iron	0.11	mg/L	0.040	10/07/21 19:39	
EPA 6010D	Manganese	0.44	mg/L	0.040	10/07/21 19:39	
EPA 6010D	Potassium	2.5	mg/L	0.20	10/07/21 19:39	
EPA 6010D	Sodium	12.3	mg/L	1.0	10/07/21 19:39	

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563761007</b>	<b>PZ-44</b>					
EPA 6010D	Calcium	24.2	mg/L	1.0	10/07/21 19:39	
EPA 6010D	Magnesium	10.3	mg/L	0.050	10/07/21 19:39	
EPA 6010D	Hardness, Total(SM 2340B)	103	mg/L	2.7	10/07/21 19:39	
EPA 6020B	Barium	0.049	mg/L	0.0050	10/08/21 21:10	
EPA 6020B	Boron	1.3	mg/L	0.040	10/08/21 21:10	
EPA 6020B	Lithium	0.0048J	mg/L	0.030	10/08/21 21:10	
SM 2540C-2011	Total Dissolved Solids	181	mg/L	10.0	10/03/21 11:39	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	81.8	mg/L	5.0	10/11/21 23:00	
SM 2320B-2011	Alkalinity, Total as CaCO3	81.8	mg/L	5.0	10/11/21 23:00	
EPA 300.0 Rev 2.1 1993	Chloride	5.0	mg/L	1.0	09/30/21 19:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.080J	mg/L	0.10	09/30/21 19:47	
EPA 300.0 Rev 2.1 1993	Sulfate	47.2	mg/L	1.0	09/30/21 19:47	
<b>92563761008</b>	<b>PZ-50D</b>					
	Performed by	CUSTOME			09/29/21 13:11	
		R				
	pH	6.23	Std. Units		09/29/21 13:11	
EPA 6010D	Iron	4.5	mg/L	0.040	10/07/21 19:44	
EPA 6010D	Manganese	14.7	mg/L	0.040	10/07/21 19:44	
EPA 6010D	Potassium	13.3	mg/L	0.20	10/07/21 19:44	
EPA 6010D	Sodium	62.1	mg/L	1.0	10/07/21 19:44	
EPA 6010D	Calcium	225	mg/L	1.0	10/07/21 19:44	
EPA 6010D	Magnesium	87.4	mg/L	0.050	10/07/21 19:44	
EPA 6010D	Hardness, Total(SM 2340B)	923	mg/L	2.7	10/07/21 19:44	
EPA 6020B	Barium	0.034	mg/L	0.0050	10/08/21 21:16	
EPA 6020B	Beryllium	0.000059J	mg/L	0.00050	10/08/21 21:16	
EPA 6020B	Boron	0.24	mg/L	0.040	10/08/21 21:16	
EPA 6020B	Cobalt	0.20	mg/L	0.0050	10/08/21 21:16	
EPA 6020B	Lithium	0.020J	mg/L	0.030	10/08/21 21:16	
EPA 6020B	Molybdenum	0.0021J	mg/L	0.010	10/08/21 21:16	
SM 2540C-2011	Total Dissolved Solids	1470	mg/L	50.0	10/03/21 11:39	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	77.7	mg/L	5.0	10/11/21 23:08	
SM 2320B-2011	Alkalinity, Total as CaCO3	77.7	mg/L	5.0	10/11/21 23:08	
EPA 300.0 Rev 2.1 1993	Chloride	13.0	mg/L	1.0	09/30/21 20:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11	mg/L	0.10	09/30/21 20:03	
EPA 300.0 Rev 2.1 1993	Sulfate	866	mg/L	20.0	10/01/21 06:52	
<b>92563761009</b>	<b>PZ-60I</b>					
	Performed by	CUSTOME			09/29/21 13:11	
		R				
	pH	4.77	Std. Units		09/29/21 13:11	
EPA 6010D	Manganese	167	mg/L	0.40	10/08/21 12:36	
EPA 6010D	Iron	0.25	mg/L	0.040	10/07/21 19:49	
EPA 6010D	Potassium	13.0	mg/L	0.20	10/07/21 19:49	
EPA 6010D	Sodium	64.0	mg/L	1.0	10/07/21 19:49	
EPA 6010D	Calcium	274	mg/L	1.0	10/07/21 19:49	
EPA 6010D	Magnesium	173	mg/L	0.050	10/07/21 19:49	
EPA 6010D	Hardness, Total(SM 2340B)	1400	mg/L	2.7	10/07/21 19:49	
EPA 6020B	Barium	0.022	mg/L	0.0050	10/08/21 21:21	

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### SUMMARY OF DETECTION

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563761009</b>	<b>PZ-60I</b>					
EPA 6020B	Beryllium	0.065	mg/L	0.00050	10/08/21 21:21	
EPA 6020B	Boron	0.23	mg/L	0.040	10/08/21 21:21	
EPA 6020B	Cadmium	0.016	mg/L	0.00050	10/08/21 21:21	
EPA 6020B	Cobalt	3.5	mg/L	0.050	10/11/21 14:21	
EPA 6020B	Lithium	0.10	mg/L	0.030	10/08/21 21:21	
EPA 6020B	Selenium	0.0049J	mg/L	0.0050	10/08/21 21:21	
SM 2540C-2011	Total Dissolved Solids	2600	mg/L	100	10/03/21 11:39	
EPA 300.0 Rev 2.1 1993	Chloride	27.2	mg/L	1.0	09/30/21 20:51	
EPA 300.0 Rev 2.1 1993	Fluoride	1.6	mg/L	0.10	09/30/21 20:51	
EPA 300.0 Rev 2.1 1993	Sulfate	1670	mg/L	37.0	10/01/21 07:40	M1

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-51S		Lab ID: 92563761001		Collected: 09/27/21 15:38		Received: 09/28/21 10:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/28/21 17:34		
pH	6.04	Std. Units			1		09/28/21 17:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	ND	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 18:46	7439-89-6	
Manganese	1.3	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 18:46	7439-96-5	
Potassium	2.2	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 18:46	7440-09-7	
Sodium	11.4	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 18:46	7440-23-5	M1
Calcium	7.5	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 18:46	7440-70-2	
Magnesium	8.4	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 18:46	7439-95-4	
Hardness, Total(SM 2340B)	53.2	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 18:46		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 20:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:07	7440-38-2	
Barium	0.025	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 20:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 20:07	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 20:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 20:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:07	7440-47-3	
Cobalt	0.0022J	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 20:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 20:07	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 20:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 20:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 20:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 20:07	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 10:44	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	88.0	mg/L	10.0	10.0	1		09/30/21 19:01		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	68.7	mg/L	5.0	5.0	1		10/07/21 19:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/07/21 19:25		
Alkalinity, Total as CaCO3	68.7	mg/L	5.0	5.0	1		10/07/21 19:25		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-51S      Lab ID: 92563761001      Collected: 09/27/21 15:38      Received: 09/28/21 10:18      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<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	0.60	1		09/30/21 17:24	16887-00-6	
Fluoride	0.072J	mg/L	0.10	0.050	1		09/30/21 17:24	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/30/21 17:24	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>									
Analytical Method: EPA 353.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, NO2 plus NO3	1.8	mg/L	0.040	0.017	1		10/11/21 11:32		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-511		Lab ID: 92563761002		Collected: 09/27/21 17:33		Received: 09/28/21 10:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/28/21 17:34		
pH	<b>5.34</b>	Std. Units			1		09/28/21 17:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	<b>0.031J</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:15	7439-89-6	
Manganese	<b>37.5</b>	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 19:15	7439-96-5	
Potassium	<b>10.6</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:15	7440-09-7	
Sodium	<b>45.8</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:15	7440-23-5	
Calcium	<b>187</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:15	7440-70-2	
Magnesium	<b>121</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:15	7439-95-4	
Hardness, Total(SM 2340B)	<b>963</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:15		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.0012J</b>	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 20:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:30	7440-38-2	
Barium	<b>0.014</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 20:30	7440-39-3	
Beryllium	<b>0.000071J</b>	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 20:30	7440-41-7	
Boron	<b>0.39</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 20:30	7440-42-8	
Cadmium	<b>0.0031</b>	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 20:30	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:30	7440-47-3	
Cobalt	<b>0.020</b>	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 20:30	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 20:30	7439-92-1	
Lithium	<b>0.020J</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 20:30	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 20:30	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 20:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 20:30	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 10:47	7439-97-6	M1,R1
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1560</b>	mg/L	50.0	50.0	1		10/03/21 11:38		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>22.2</b>	mg/L	5.0	5.0	1		10/07/21 19:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/07/21 19:42		
Alkalinity, Total as CaCO3	<b>22.2</b>	mg/L	5.0	5.0	1		10/07/21 19:42		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-511      Lab ID: 92563761002      Collected: 09/27/21 17:33      Received: 09/28/21 10:18      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	9.4	mg/L	1.0	0.60	1		09/30/21 17:40	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/30/21 17:40	16984-48-8	
Sulfate	933	mg/L	21.0	10.5	21		10/01/21 05:34	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>									
Analytical Method: EPA 353.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 11:33		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-611	Lab ID: 92563761003	Collected: 09/27/21 16:43	Received: 09/28/21 10:18	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/28/21 17:34		
pH	<b>5.02</b>	Std. Units			1		09/28/21 17:34		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Manganese	<b>118</b>	mg/L	0.40	0.043	10	10/07/21 11:53	10/08/21 12:31	7439-96-5	
Iron	<b>4.5</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:20	7439-89-6	
Potassium	<b>7.0</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:20	7440-09-7	
Sodium	<b>66.1</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:20	7440-23-5	
Calcium	<b>230</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:20	7440-70-2	
Magnesium	<b>180</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:20	7439-95-4	
Hardness, Total(SM 2340B)	<b>1310</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:20		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 20:36	7440-36-0	
Arsenic	<b>0.0023J</b>	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:36	7440-38-2	
Barium	<b>0.029</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 20:36	7440-39-3	
Beryllium	<b>0.0017</b>	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 20:36	7440-41-7	
Boron	<b>0.26</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 20:36	7440-42-8	
Cadmium	<b>0.00081</b>	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 20:36	7440-43-9	
Chromium	<b>0.0077</b>	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:36	7440-47-3	
Cobalt	<b>0.45</b>	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 20:36	7440-48-4	
Lead	<b>0.0019</b>	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 20:36	7439-92-1	
Lithium	<b>0.0095J</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 20:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 20:36	7439-98-7	
Selenium	<b>0.0079</b>	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 20:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 20:36	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:04	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>2100</b>	mg/L	100	100	1		10/03/21 11:38		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>11.3</b>	mg/L	5.0	5.0	1		10/07/21 19:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/07/21 19:48		
Alkalinity, Total as CaCO3	<b>11.3</b>	mg/L	5.0	5.0	1		10/07/21 19:48		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Sample: PZ-61I		Lab ID: 92563761003		Collected: 09/27/21 16:43	Received: 09/28/21 10:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>20.0</b>	mg/L	1.0	0.60	1		09/30/21 17:55	16887-00-6	
Fluoride	<b>0.067J</b>	mg/L	0.10	0.050	1		09/30/21 17:55	16984-48-8	
Sulfate	<b>1420</b>	mg/L	32.0	16.0	32		10/01/21 05:50	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2 Rev 2.0 1993 Pace Analytical Services - Asheville							
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 11:34		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: <b>PZ-51D</b>	Lab ID: <b>92563761004</b>	Collected: 09/28/21 11:10	Received: 09/29/21 11:57	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:10		
pH	<b>7.18</b>	Std. Units			1		09/29/21 13:10		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	<b>1.7</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:25	7439-89-6	
Manganese	<b>1.1</b>	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 19:25	7439-96-5	
Potassium	<b>10</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:25	7440-09-7	
Sodium	<b>39.0</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:25	7440-23-5	
Calcium	<b>113</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:25	7440-70-2	
Magnesium	<b>28.2</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:25	7439-95-4	
Hardness, Total(SM 2340B)	<b>399</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:25		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 20:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:53	7440-38-2	
Barium	<b>0.057</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 20:53	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 20:53	7440-41-7	
Boron	<b>0.023J</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 20:53	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 20:53	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:53	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 20:53	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 20:53	7439-92-1	
Lithium	<b>0.0096J</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 20:53	7439-93-2	
Molybdenum	<b>0.0029J</b>	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 20:53	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 20:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 20:53	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:07	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>650</b>	mg/L	20.0	20.0	1		10/03/21 11:39		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>144</b>	mg/L	5.0	5.0	1		10/11/21 22:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 22:43		
Alkalinity, Total as CaCO3	<b>144</b>	mg/L	5.0	5.0	1		10/11/21 22:43		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-51D      Lab ID: 92563761004      Collected: 09/28/21 11:10      Received: 09/29/21 11:57      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>12.8</b>	mg/L	1.0	0.60	1		09/30/21 18:59	16887-00-6	
Fluoride	<b>0.26</b>	mg/L	0.10	0.050	1		09/30/21 18:59	16984-48-8	
Sulfate	<b>294</b>	mg/L	7.0	3.5	7		10/01/21 06:05	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>									
Analytical Method: EPA 353.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:27		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-571	Lab ID: 92563761005	Collected: 09/28/21 14:29	Received: 09/29/21 11:57	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:10		
pH	<b>5.37</b>	Std. Units			1		09/29/21 13:10		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	<b>2.6</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:29	7439-89-6	
Manganese	<b>12.2</b>	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 19:29	7439-96-5	
Potassium	<b>4.3</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:29	7440-09-7	
Sodium	<b>18.2</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:29	7440-23-5	
Calcium	<b>51.1</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:29	7440-70-2	
Magnesium	<b>31.3</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:29	7439-95-4	
Hardness, Total(SM 2340B)	<b>257</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:29		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 20:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:59	7440-38-2	
Barium	<b>0.022</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 20:59	7440-39-3	
Beryllium	<b>0.00031J</b>	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 20:59	7440-41-7	
Boron	<b>0.48</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 20:59	7440-42-8	
Cadmium	<b>0.00064</b>	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 20:59	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 20:59	7440-47-3	
Cobalt	<b>0.055</b>	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 20:59	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 20:59	7439-92-1	
Lithium	<b>0.018J</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 20:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 20:59	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 20:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 20:59	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:10	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>542</b>	mg/L	10.0	10.0	1		10/03/21 11:39		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>10.1</b>	mg/L	5.0	5.0	1		10/11/21 22:53		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 22:53		
Alkalinity, Total as CaCO3	<b>10.1</b>	mg/L	5.0	5.0	1		10/11/21 22:53		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Sample: PZ-571		Lab ID: 92563761005		Collected: 09/28/21 14:29	Received: 09/29/21 11:57	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>5.9</b>	mg/L	1.0	0.60	1		09/30/21 19:15	16887-00-6	
Fluoride	<b>0.085J</b>	mg/L	0.10	0.050	1		09/30/21 19:15	16984-48-8	
Sulfate	<b>259</b>	mg/L	6.0	3.0	6		10/01/21 06:21	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2 Rev 2.0 1993 Pace Analytical Services - Asheville							
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:28		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-581	Lab ID: 92563761006	Collected: 09/28/21 13:15	Received: 09/29/21 11:57	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:10		
pH	<b>4.00</b>	Std. Units			1		09/29/21 13:10		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	<b>39.8</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:34	7439-89-6	
Manganese	<b>20.2</b>	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 19:34	7439-96-5	
Potassium	<b>7.0</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:34	7440-09-7	
Sodium	<b>30.3</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:34	7440-23-5	
Calcium	<b>108</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:34	7440-70-2	
Magnesium	<b>58.9</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:34	7439-95-4	
Hardness, Total(SM 2340B)	<b>513</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:34		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 21:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:04	7440-38-2	
Barium	<b>0.017</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 21:04	7440-39-3	
Beryllium	<b>0.025</b>	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 21:04	7440-41-7	
Boron	<b>0.36</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 21:04	7440-42-8	
Cadmium	<b>0.0042</b>	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 21:04	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:04	7440-47-3	
Cobalt	<b>0.39</b>	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 21:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 21:04	7439-92-1	
Lithium	<b>0.041</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 21:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 21:04	7439-98-7	
Selenium	<b>0.0034J</b>	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 21:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 21:04	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:12	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1120</b>	mg/L	20.0	20.0	1		10/03/21 11:39		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 22:58		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 22:58		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		10/11/21 22:58		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Sample: PZ-58I		Lab ID: 92563761006		Collected: 09/28/21 13:15	Received: 09/29/21 11:57	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>9.6</b>	mg/L	1.0	0.60	1		09/30/21 19:31	16887-00-6	
Fluoride	<b>0.97</b>	mg/L	0.10	0.050	1		09/30/21 19:31	16984-48-8	
Sulfate	<b>628</b>	mg/L	14.0	7.0	14		10/01/21 06:37	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2 Rev 2.0 1993 Pace Analytical Services - Asheville							
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:29		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-44	Lab ID: 92563761007	Collected: 09/28/21 14:50	Received: 09/29/21 11:57	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:10		
pH	<b>6.22</b>	Std. Units			1		09/29/21 13:10		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	<b>0.11</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:39	7439-89-6	
Manganese	<b>0.44</b>	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 19:39	7439-96-5	
Potassium	<b>2.5</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:39	7440-09-7	
Sodium	<b>12.3</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:39	7440-23-5	
Calcium	<b>24.2</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:39	7440-70-2	
Magnesium	<b>10.3</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:39	7439-95-4	
Hardness, Total(SM 2340B)	<b>103</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:39		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 21:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:10	7440-38-2	
Barium	<b>0.049</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 21:10	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 21:10	7440-41-7	
Boron	<b>1.3</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 21:10	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 21:10	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 21:10	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 21:10	7439-92-1	
Lithium	<b>0.0048J</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 21:10	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 21:10	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 21:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 21:10	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:15	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>181</b>	mg/L	10.0	10.0	1		10/03/21 11:39		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	<b>81.8</b>	mg/L	5.0	5.0	1		10/11/21 23:00		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:00		
Alkalinity, Total as CaCO3	<b>81.8</b>	mg/L	5.0	5.0	1		10/11/21 23:00		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Sample: PZ-44		Lab ID: 92563761007		Collected: 09/28/21 14:50	Received: 09/29/21 11:57	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	<b>5.0</b>	mg/L	1.0	0.60	1		09/30/21 19:47	16887-00-6	
Fluoride	<b>0.080J</b>	mg/L	0.10	0.050	1		09/30/21 19:47	16984-48-8	
Sulfate	<b>47.2</b>	mg/L	1.0	0.50	1		09/30/21 19:47	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2 Rev 2.0 1993 Pace Analytical Services - Asheville							
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:30		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-50D		Lab ID: 92563761008		Collected: 09/28/21 09:24		Received: 09/29/21 11:57		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/29/21 13:11		
pH	6.23	Std. Units			1		09/29/21 13:11		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Iron	4.5	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:44	7439-89-6	
Manganese	14.7	mg/L	0.040	0.0043	1	10/07/21 11:53	10/07/21 19:44	7439-96-5	
Potassium	13.3	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:44	7440-09-7	
Sodium	62.1	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:44	7440-23-5	
Calcium	225	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:44	7440-70-2	
Magnesium	87.4	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:44	7439-95-4	
Hardness, Total(SM 2340B)	923	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:44		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 21:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:16	7440-38-2	
Barium	0.034	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 21:16	7440-39-3	
Beryllium	0.000059J	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 21:16	7440-41-7	
Boron	0.24	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 21:16	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 21:16	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:16	7440-47-3	
Cobalt	0.20	mg/L	0.0050	0.00039	1	10/08/21 10:25	10/08/21 21:16	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 21:16	7439-92-1	
Lithium	0.020J	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 21:16	7439-93-2	
Molybdenum	0.0021J	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 21:16	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 21:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 21:16	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:17	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	1470	mg/L	50.0	50.0	1		10/03/21 11:39		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	77.7	mg/L	5.0	5.0	1		10/11/21 23:08		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:08		
Alkalinity, Total as CaCO3	77.7	mg/L	5.0	5.0	1		10/11/21 23:08		

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-50D      Lab ID: 92563761008      Collected: 09/28/21 09:24      Received: 09/29/21 11:57      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>13.0</b>	mg/L	1.0	0.60	1		09/30/21 20:03	16887-00-6	
Fluoride	<b>0.11</b>	mg/L	0.10	0.050	1		09/30/21 20:03	16984-48-8	
Sulfate	<b>866</b>	mg/L	20.0	10.0	20		10/01/21 06:52	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>									
Analytical Method: EPA 353.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:31		

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### ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-601	Lab ID: 92563761009	Collected: 09/28/21 12:02	Received: 09/29/21 11:57	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/29/21 13:11		
pH	<b>4.77</b>	Std. Units			1		09/29/21 13:11		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Manganese	<b>167</b>	mg/L	0.40	0.043	10	10/07/21 11:53	10/08/21 12:36	7439-96-5	
Iron	<b>0.25</b>	mg/L	0.040	0.025	1	10/07/21 11:53	10/07/21 19:49	7439-89-6	
Potassium	<b>13.0</b>	mg/L	0.20	0.15	1	10/07/21 11:53	10/07/21 19:49	7440-09-7	
Sodium	<b>64.0</b>	mg/L	1.0	0.58	1	10/07/21 11:53	10/07/21 19:49	7440-23-5	
Calcium	<b>274</b>	mg/L	1.0	0.12	1	10/07/21 11:53	10/07/21 19:49	7440-70-2	
Magnesium	<b>173</b>	mg/L	0.050	0.012	1	10/07/21 11:53	10/07/21 19:49	7439-95-4	
Hardness, Total(SM 2340B)	<b>1400</b>	mg/L	2.7	0.35	1	10/07/21 11:53	10/07/21 19:49		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/08/21 10:25	10/08/21 21:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:21	7440-38-2	
Barium	<b>0.022</b>	mg/L	0.0050	0.00067	1	10/08/21 10:25	10/08/21 21:21	7440-39-3	
Beryllium	<b>0.065</b>	mg/L	0.00050	0.000054	1	10/08/21 10:25	10/08/21 21:21	7440-41-7	
Boron	<b>0.23</b>	mg/L	0.040	0.0086	1	10/08/21 10:25	10/08/21 21:21	7440-42-8	
Cadmium	<b>0.016</b>	mg/L	0.00050	0.00011	1	10/08/21 10:25	10/08/21 21:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/08/21 10:25	10/08/21 21:21	7440-47-3	
Cobalt	<b>3.5</b>	mg/L	0.050	0.0039	10	10/08/21 10:25	10/11/21 14:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/08/21 10:25	10/08/21 21:21	7439-92-1	
Lithium	<b>0.10</b>	mg/L	0.030	0.00073	1	10/08/21 10:25	10/08/21 21:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/08/21 10:25	10/08/21 21:21	7439-98-7	
Selenium	<b>0.0049J</b>	mg/L	0.0050	0.0014	1	10/08/21 10:25	10/08/21 21:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/08/21 10:25	10/08/21 21:21	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	10/13/21 07:00	10/13/21 11:20	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>2600</b>	mg/L	100	100	1		10/03/21 11:39		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:16		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/11/21 23:16		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		10/11/21 23:16		

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## ANALYTICAL RESULTS

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

Sample: PZ-60I      Lab ID: 92563761009      Collected: 09/28/21 12:02      Received: 09/29/21 11:57      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>27.2</b>	mg/L	1.0	0.60	1		09/30/21 20:51	16887-00-6	
Fluoride	<b>1.6</b>	mg/L	0.10	0.050	1		09/30/21 20:51	16984-48-8	
Sulfate	<b>1670</b>	mg/L	37.0	18.5	37		10/01/21 07:40	14808-79-8	M1
<b>353.2 Nitrogen, NO2/NO3 pres.</b>									
Analytical Method: EPA 353.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/11/21 12:32		

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 651397 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

METHOD BLANK: 3416096 Matrix: Water  
Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	10/07/21 18:37	
Hardness, Total(SM 2340B)	mg/L	ND	2.7	0.35	10/07/21 18:37	
Iron	mg/L	ND	0.040	0.025	10/07/21 18:37	
Magnesium	mg/L	ND	0.050	0.012	10/07/21 18:37	
Manganese	mg/L	ND	0.040	0.0043	10/07/21 18:37	
Potassium	mg/L	ND	0.20	0.15	10/07/21 18:37	
Sodium	mg/L	ND	1.0	0.58	10/07/21 18:37	

LABORATORY CONTROL SAMPLE: 3416097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	
Hardness, Total(SM 2340B)	mg/L	6.6	6.8	103	80-120	
Iron	mg/L	1	1.0	103	80-120	
Magnesium	mg/L	1	1.1	105	80-120	
Manganese	mg/L	1	1.0	100	80-120	
Potassium	mg/L	1	0.84	84	80-120	
Sodium	mg/L	1	1.1	114	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416098 3416099

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result								
Calcium	mg/L	7.5	1	1	8.4	8.4	94	91	75-125	0	20		
Hardness, Total(SM 2340B)	mg/L	53.2	6.6	6.6	58.9	59.2	86	91	75-125	1	20		
Iron	mg/L	ND	1	1	1.1	1.0	105	103	75-125	2	20		
Magnesium	mg/L	8.4	1	1	9.2	9.3	80	90	75-125	1	20		
Manganese	mg/L	1.3	1	1	2.3	2.3	97	96	75-125	0	20		
Potassium	mg/L	2.2	1	1	3.2	3.2	102	98	75-125	1	20		
Sodium	mg/L	11.4	1	1	11.9	12.3	46	90	75-125	4	20	M1	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 651684 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

METHOD BLANK: 3417564 Matrix: Water  
Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/08/21 19:44	
Arsenic	mg/L	ND	0.0050	0.0011	10/08/21 19:44	
Barium	mg/L	ND	0.0050	0.00067	10/08/21 19:44	
Beryllium	mg/L	ND	0.00050	0.000054	10/08/21 19:44	
Boron	mg/L	ND	0.040	0.0086	10/08/21 19:44	
Cadmium	mg/L	ND	0.00050	0.00011	10/08/21 19:44	
Chromium	mg/L	ND	0.0050	0.0011	10/08/21 19:44	
Cobalt	mg/L	ND	0.0050	0.00039	10/08/21 19:44	
Lead	mg/L	ND	0.0010	0.00089	10/08/21 19:44	
Lithium	mg/L	ND	0.030	0.00073	10/08/21 19:44	
Molybdenum	mg/L	ND	0.010	0.00074	10/08/21 19:44	
Selenium	mg/L	ND	0.0050	0.0014	10/08/21 19:44	
Thallium	mg/L	ND	0.0010	0.00018	10/08/21 19:44	

LABORATORY CONTROL SAMPLE: 3417565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	0.91	91	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.093	93	80-120	
Lithium	mg/L	0.1	0.094	94	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.092	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3417566 3417567

Parameter	Units	92563761001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	108	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Parameter	Units	3417566		3417567		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563761001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20		
Barium	mg/L	0.025	0.1	0.1	0.12	0.12	96	98	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.089	0.090	89	90	75-125	2	20		
Boron	mg/L	ND	1	1	0.87	0.91	86	91	75-125	5	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.091	0.092	91	92	75-125	1	20		
Cobalt	mg/L	0.0022J	0.1	0.1	0.091	0.092	88	90	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.093	0.093	92	93	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.096	0.099	96	98	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.092	0.093	92	93	75-125	1	20		

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch:	652379	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

METHOD BLANK: 3420817 Matrix: Water  
Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.000078	10/13/21 10:39	

LABORATORY CONTROL SAMPLE: 3420818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3420819 3420820

Parameter	Units	92563761002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0022	0.0015	86	59	75-125	37	20	M1,R1

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

QC Batch: 650109	Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563761001

METHOD BLANK: 3409662 Matrix: Water

Associated Lab Samples: 92563761001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/21 18:57	

LABORATORY CONTROL SAMPLE: 3409663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	90-111	

SAMPLE DUPLICATE: 3409664

Parameter	Units	92563226001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	277	284	2	10	

SAMPLE DUPLICATE: 3409665

Parameter	Units	92563599002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	85.0	9	10	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

QC Batch: 650392

Analysis Method: SM 2540C-2011

QC Batch Method: SM 2540C-2011

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

METHOD BLANK: 3411236

Matrix: Water

Associated Lab Samples: 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/03/21 11:38	

LABORATORY CONTROL SAMPLE: 3411237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	90-111	

SAMPLE DUPLICATE: 3411239

Parameter	Units	92563761007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	181	181	0	10	

SAMPLE DUPLICATE: 3412138

Parameter	Units	92563761002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1560	1580	2	10	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 651424 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563761001, 92563761002, 92563761003

METHOD BLANK: 3416272 Matrix: Water  
Associated Lab Samples: 92563761001, 92563761002, 92563761003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/07/21 17:20	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/07/21 17:20	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/07/21 17:20	

LABORATORY CONTROL SAMPLE: 3416273

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: 3416274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.2	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416275 3416276

Parameter	Units	92563915005		3416276		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.0	59.9	93	110	16	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416277 3416278

Parameter	Units	92563915006		3416278		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	25.0	50	50	72.9	73.7	96	97	1	25	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 651992 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

METHOD BLANK: 3419013 Matrix: Water  
Associated Lab Samples: 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/11/21 20:50	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/11/21 20:50	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/11/21 20:50	

LABORATORY CONTROL SAMPLE: 3419014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.5	105	80-120	

LABORATORY CONTROL SAMPLE: 3419015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	54.6	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419016 3419017

Parameter	Units	92564448001		3419017		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	82.1	50	50	114	113	65	61	80-120	2	25 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3419018 3419019

Parameter	Units	92564448007		3419019		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	66.5	50	50	119	121	104	108	80-120	2	25

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 650118 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: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008

METHOD BLANK: 3409685 Matrix: Water  
Associated Lab Samples: 92563761001, 92563761002, 92563761003, 92563761004, 92563761005, 92563761006, 92563761007, 92563761008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/21 12:38	
Fluoride	mg/L	ND	0.10	0.050	09/30/21 12:38	
Sulfate	mg/L	ND	1.0	0.50	09/30/21 12:38	

LABORATORY CONTROL SAMPLE: 3409686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	46.5	93	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.6	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409687 3409688

Parameter	Units	92563859001		3409688		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	1030	50	50	1080	1090	110	129	90-110	1	10 M1
Fluoride	mg/L	ND	2.5	2.5	1.5	1.6	62	63	90-110	2	10 M1
Sulfate	mg/L	1290	50	50	1350	1370	124	150	90-110	1	10 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409689 3409690

Parameter	Units	92563226004		3409690		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	16.2	50	50	63.6	64.7	95	97	90-110	2	10
Fluoride	mg/L	0.46	2.5	2.5	3.1	3.1	104	106	90-110	2	10
Sulfate	mg/L	1170	50	50	1200	1200	65	48	90-110	1	10 M1

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 650124 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: 92563761009

METHOD BLANK: 3409716 Matrix: Water  
Associated Lab Samples: 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/30/21 20:19	
Fluoride	mg/L	ND	0.10	0.050	09/30/21 20:19	
Sulfate	mg/L	ND	1.0	0.50	09/30/21 20:19	

LABORATORY CONTROL SAMPLE: 3409717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	46.9	94	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.9	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409718 3409719

Parameter	Units	92563761009		3409718		3409719		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Chloride	mg/L	27.2	27.2	50	50	74.3	75.0	94	95	90-110	1	10
Fluoride	mg/L	1.6	1.6	2.5	2.5	4.3	4.4	107	110	90-110	2	10
Sulfate	mg/L	1670	1670	50	50	1680	1680	26	13	90-110	0	10 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409720 3409721

Parameter	Units	92563226014		3409720		3409721		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Chloride	mg/L	ND	ND	50	50	47.4	47.9	95	96	90-110	1	10
Fluoride	mg/L	ND	ND	2.5	2.5	2.5	2.5	98	100	90-110	1	10
Sulfate	mg/L	ND	ND	50	50	50.4	51.0	101	102	90-110	1	10

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO  
Pace Project No.: 92563761

QC Batch: 651968 Analysis Method: EPA 353.2 Rev 2.0 1993  
QC Batch Method: EPA 353.2 Rev 2.0 1993 Analysis Description: 353.2 Nitrate + Nitrite, preserved  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563761001, 92563761002, 92563761003

METHOD BLANK: 3418960 Matrix: Water  
Associated Lab Samples: 92563761001, 92563761002, 92563761003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.017	10/11/21 11:02	

LABORATORY CONTROL SAMPLE: 3418961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418962 3418963

Parameter	Units	92564311001		3418963		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.						
Nitrogen, NO2 plus NO3	mg/L	0.058	2.5	2.4	2.4	95	95	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418964 3418965

Parameter	Units	92564312001		3418965		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.						
Nitrogen, NO2 plus NO3	mg/L	0.052	2.5	1.8	1.8	69	68	90-110	0	10 M1	

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### QUALITY CONTROL DATA

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

QC Batch: 651970 Analysis Method: EPA 353.2 Rev 2.0 1993  
 QC Batch Method: EPA 353.2 Rev 2.0 1993 Analysis Description: 353.2 Nitrate + Nitrite, preserved  
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

METHOD BLANK: 3418972

Matrix: Water

Associated Lab Samples: 92563761004, 92563761005, 92563761006, 92563761007, 92563761008, 92563761009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.017	10/11/21 12:11	

LABORATORY CONTROL SAMPLE: 3418973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418974 3418975

Parameter	Units	92562907001		3418974		3418975		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, NO2 plus NO3	mg/L	43.3	2.5	2.5	2.5	46.1	46.0	112	106	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3418976 3418977

Parameter	Units	92562911001		3418976		3418977		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, NO2 plus NO3	mg/L	ND	2.5	2.5	2.5	2.3	2.3	92	93	90-110	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

---

### 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.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563761001	PZ-51S				
92563761002	PZ-51I				
92563761003	PZ-61I				
92563761004	PZ-51D				
92563761005	PZ-57I				
92563761006	PZ-58I				
92563761007	PZ-44				
92563761008	PZ-50D				
92563761009	PZ-60I				
92563761001	PZ-51S	EPA 3010A	651397	EPA 6010D	651486
92563761002	PZ-51I	EPA 3010A	651397	EPA 6010D	651486
92563761003	PZ-61I	EPA 3010A	651397	EPA 6010D	651486
92563761004	PZ-51D	EPA 3010A	651397	EPA 6010D	651486
92563761005	PZ-57I	EPA 3010A	651397	EPA 6010D	651486
92563761006	PZ-58I	EPA 3010A	651397	EPA 6010D	651486
92563761007	PZ-44	EPA 3010A	651397	EPA 6010D	651486
92563761008	PZ-50D	EPA 3010A	651397	EPA 6010D	651486
92563761009	PZ-60I	EPA 3010A	651397	EPA 6010D	651486
92563761001	PZ-51S	EPA 3005A	651684	EPA 6020B	651759
92563761002	PZ-51I	EPA 3005A	651684	EPA 6020B	651759
92563761003	PZ-61I	EPA 3005A	651684	EPA 6020B	651759
92563761004	PZ-51D	EPA 3005A	651684	EPA 6020B	651759
92563761005	PZ-57I	EPA 3005A	651684	EPA 6020B	651759
92563761006	PZ-58I	EPA 3005A	651684	EPA 6020B	651759
92563761007	PZ-44	EPA 3005A	651684	EPA 6020B	651759
92563761008	PZ-50D	EPA 3005A	651684	EPA 6020B	651759
92563761009	PZ-60I	EPA 3005A	651684	EPA 6020B	651759
92563761001	PZ-51S	EPA 7470A	652379	EPA 7470A	652560
92563761002	PZ-51I	EPA 7470A	652379	EPA 7470A	652560
92563761003	PZ-61I	EPA 7470A	652379	EPA 7470A	652560
92563761004	PZ-51D	EPA 7470A	652379	EPA 7470A	652560
92563761005	PZ-57I	EPA 7470A	652379	EPA 7470A	652560
92563761006	PZ-58I	EPA 7470A	652379	EPA 7470A	652560
92563761007	PZ-44	EPA 7470A	652379	EPA 7470A	652560
92563761008	PZ-50D	EPA 7470A	652379	EPA 7470A	652560
92563761009	PZ-60I	EPA 7470A	652379	EPA 7470A	652560
92563761001	PZ-51S	SM 2540C-2011	650109		
92563761002	PZ-51I	SM 2540C-2011	650392		
92563761003	PZ-61I	SM 2540C-2011	650392		
92563761004	PZ-51D	SM 2540C-2011	650392		
92563761005	PZ-57I	SM 2540C-2011	650392		
92563761006	PZ-58I	SM 2540C-2011	650392		
92563761007	PZ-44	SM 2540C-2011	650392		
92563761008	PZ-50D	SM 2540C-2011	650392		
92563761009	PZ-60I	SM 2540C-2011	650392		
92563761001	PZ-51S	SM 2320B-2011	651424		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-BCD DELIN PIEZO

Pace Project No.: 92563761

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563761002	PZ-51I	SM 2320B-2011	651424		
92563761003	PZ-61I	SM 2320B-2011	651424		
92563761004	PZ-51D	SM 2320B-2011	651992		
92563761005	PZ-57I	SM 2320B-2011	651992		
92563761006	PZ-58I	SM 2320B-2011	651992		
92563761007	PZ-44	SM 2320B-2011	651992		
92563761008	PZ-50D	SM 2320B-2011	651992		
92563761009	PZ-60I	SM 2320B-2011	651992		
92563761001	PZ-51S	EPA 300.0 Rev 2.1 1993	650118		
92563761002	PZ-51I	EPA 300.0 Rev 2.1 1993	650118		
92563761003	PZ-61I	EPA 300.0 Rev 2.1 1993	650118		
92563761004	PZ-51D	EPA 300.0 Rev 2.1 1993	650118		
92563761005	PZ-57I	EPA 300.0 Rev 2.1 1993	650118		
92563761006	PZ-58I	EPA 300.0 Rev 2.1 1993	650118		
92563761007	PZ-44	EPA 300.0 Rev 2.1 1993	650118		
92563761008	PZ-50D	EPA 300.0 Rev 2.1 1993	650118		
92563761009	PZ-60I	EPA 300.0 Rev 2.1 1993	650124		
92563761001	PZ-51S	EPA 353.2 Rev 2.0 1993	651968		
92563761002	PZ-51I	EPA 353.2 Rev 2.0 1993	651968		
92563761003	PZ-61I	EPA 353.2 Rev 2.0 1993	651968		
92563761004	PZ-51D	EPA 353.2 Rev 2.0 1993	651970		
92563761005	PZ-57I	EPA 353.2 Rev 2.0 1993	651970		
92563761006	PZ-58I	EPA 353.2 Rev 2.0 1993	651970		
92563761007	PZ-44	EPA 353.2 Rev 2.0 1993	651970		
92563761008	PZ-50D	EPA 353.2 Rev 2.0 1993	651970		
92563761009	PZ-60I	EPA 353.2 Rev 2.0 1993	651970		

### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name: Georgia Power

Project #: **WO# : 92563761**



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

Custody Seal Present?  Yes  No    Seals Intact?  Yes  No

Date/Initials Person Examining Contents: MT 9/12/21

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Thermometer:  IR Gun ID: 230    Type of Ice:  Wet  Blue  None

Yes  No  N/A

Cooler Temp: 3.4    Correction Factor: 2.01  
Add/Subtract (°C)

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 3.5

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

CLIENT NOTIFICATION/RESOLUTION

Lot ID of split containers:

Person contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

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

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

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

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



Document Name:  
**Sample Condition Upon Receipt(SCUR)**  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolina Quality Office

\*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

Project #

**WO# : 92563761**

PM: NMG

Due Date: 10/12/21

CLIENT: GA-GA Power

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 2N Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFW-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Requested Client Information: Georgia Power - Coal Combustion Residuals  
 Section B Requested Project Information: Report To: John Axtellman  
 Section C Invoice Information: Attention: sctmcc@gsdynamics.com  
 Page: 1 of 1

Company: Georgia Power - Coal Combustion Residuals  
 Address: 1100 Middlebrook Rd, Marietta, GA 30067  
 Email: jaxtella@gsdynamics.com  
 Phone: (404) 506-7239  
 Requested Date: 10 Day FAT  
 Project #: 166025421  
 Project Name: First Branch Air-BOD Demonstration  
 Pesticides:   
 Analytical Requested By: Kevin Herring  
 Page Profile #:  
 Regulatory Agency:   
 State/Location: GA

ITEM #	SAMPLE ID One Character per box, (A-Z, 0-9, -) Sample IDs must be unique	MATRIX CODE (see vial codes 25-167)	SAMPLE TYPE (G-SRAB, C-COM)	DATE/TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES							ANALYSES TEST	Y/N	REQUESTED ANALYSIS FILTERED (Y/N)	RESIDUAL CHLORINE (Y/N)	PH
							Unreserved - Ice	H2SO4	HNO3 - Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol					
1	P2 515	G	G	9/27/2021 16:38		6	2	1	3									pH = 6.04
2	P2 511	G	G	9/27/2021 17:03		6	2	1	3									pH = 5.34
3	P2 611	G	G	9/27/2021 16:43		6	2	1	3									pH = 5.02
4																		
5																		
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8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS:   
 HELD/UNHELD BY / AFFILIATION: *W.../sample* DATE: 9-28-21 TIME: 08:35  
 ACCEPTED BY / AFFILIATION: *Elaine Cook* DATE: 9/28/2021 TIME: 8:35  
*Elaine Cook* 9/28/2021  
 DATE Signed: 9-28-21  
 State/Location: *John Waguespack / W...*

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

**Sample Condition Upon Receipt**

Client Name: GAPower

Project #:

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

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 9/29/21  
COH

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: 4.3 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): 4.3

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 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 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:	<u>W</u>		
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: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document Revised: October 28, 2020  
Page 2 of 2

Document No.:  
F-CAR-CS-033-Rev.07

Issuing Authority:  
Pace Carolinas Quality Office

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

Project #

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

\*\*Bottom half of box is to list number of bottles

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).





October 01, 2021

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

RE: Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Dear Kelley Sharpe:


Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2021. 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  
Ben Hodges, Georgia Power  
Warren Johnson, ARCADIS - Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

---

### **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 Certification #: 99030001  
Virginia/VELAP Certification #: 460222

---

### **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.: 92563212

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563212001	LR-1 (Surface)	Water	09/23/21 10:55	09/24/21 08:24
92563212002	LR-1 (Mid)	Water	09/23/21 10:55	09/24/21 08:24
92563212003	LR-1 (Bottom)	Water	09/23/21 10:55	09/24/21 08:24
92563212004	LR+8A (Surface)	Water	09/23/21 10:35	09/24/21 08:24
92563212005	LR+9A (Surface)	Water	09/23/21 10:42	09/24/21 08:24
92563212006	LR+8 (Surface)	Water	09/23/21 10:22	09/24/21 08:24
92563212007	LR+8 (Mid)	Water	09/23/21 10:22	09/24/21 08:24
92563212008	LR+8 (Bottom)	Water	09/23/21 10:22	09/24/21 08:24
92563212009	LR+9 (Surface)	Water	09/23/21 10:10	09/24/21 08:24
92563212010	LR+9 (Mid)	Water	09/23/21 10:10	09/24/21 08:24
92563212011	LR+9 (Bottom)	Water	09/23/21 10:10	09/24/21 08:24
92563212012	LR-10 (Surface)	Water	09/23/21 09:51	09/24/21 08:24
92563212013	LR-10 (Mid)	Water	09/23/21 09:51	09/24/21 08:24
92563212014	LR-10 (Bottom)	Water	09/23/21 09:51	09/24/21 08:24

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563212001	LR-1 (Surface)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212002	LR-1 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212003	LR-1 (Bottom)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212004	LR+8A (Surface)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212005	LR+9A (Surface)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212006	LR+8 (Surface)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212007	LR+8 (Mid)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212008	LR+8 (Bottom)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563212009	LR+9 (Surface)	SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
92563212010	LR+9 (Mid)	SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
92563212011	LR+9 (Bottom)	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
92563212012	LR-10 (Surface)	EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KH	4	PASI-GA
92563212013	LR-10 (Mid)	EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
92563212014	LR-10 (Bottom)	SM 2540C-2011	ALW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KH	4	PASI-GA
		EPA 6020B	CW1	2	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

<b>Sample: LR-1 (Surface)</b>		<b>Lab ID: 92563212001</b>		Collected: 09/23/21 10:55	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 14:56	7440-09-7	
Sodium	<b>4.7</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 14:56	7440-23-5	M1
Calcium	<b>5.0</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 14:56	7440-70-2	M1
Magnesium	<b>2.5</b>	mg/L	0.050	1	09/28/21 10:00	09/28/21 14:56	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	09/28/21 09:20	09/28/21 18:29	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 18:29	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>62.0</b>	mg/L	10.0	1		09/29/21 19:08		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>34.2</b>	mg/L	5.0	1		09/27/21 18:06		
Alkalinity, Total as CaCO <sub>3</sub>	<b>34.2</b>	mg/L	5.0	1		09/27/21 18:06		
<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		09/26/21 23:36	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/26/21 23:36	16984-48-8	
Sulfate	<b>1.8</b>	mg/L	1.0	1		09/26/21 23:36	14808-79-8	M1

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

<b>Sample: LR-1 (Mid)</b>		<b>Lab ID: 92563212002</b>		Collected: 09/23/21 10:55	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 17:56	7440-09-7	
Sodium	<b>4.7</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 17:56	7440-23-5	
Calcium	<b>5.0</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 17:56	7440-70-2	
Magnesium	<b>2.6</b>	mg/L	0.050	1	09/28/21 10:00	09/28/21 17:56	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	09/28/21 09:20	09/28/21 18:35	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 18:35	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>61.0</b>	mg/L	10.0	1		09/29/21 19:08		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>33.2</b>	mg/L	5.0	1		09/27/21 18:12		
Alkalinity, Total as CaCO <sub>3</sub>	<b>33.2</b>	mg/L	5.0	1		09/27/21 18:12		
<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		09/27/21 00:20	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 00:20	16984-48-8	
Sulfate	<b>1.8</b>	mg/L	1.0	1		09/27/21 00:20	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Sample: LR-1 (Bottom)	Lab ID: 92563212003	Collected: 09/23/21 10:55		Received: 09/24/21 08:24		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	2.4	mg/L	0.20	1	09/28/21 10:00	09/28/21 18:01	7440-09-7	
Sodium	4.5	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:01	7440-23-5	
Calcium	4.7	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:01	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:01	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	09/28/21 09:20	09/28/21 18:57	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 18:57	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	63.0	mg/L	10.0	1		09/29/21 19:08		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.0	mg/L	5.0	1		09/27/21 18:18		
Alkalinity, Total as CaCO <sub>3</sub>	32.0	mg/L	5.0	1		09/27/21 18:18		
<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		09/27/21 00:35	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 00:35	16984-48-8	
Sulfate	1.8	mg/L	1.0	1		09/27/21 00:35	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

<b>Sample: LR+8A (Surface)</b>		<b>Lab ID: 92563212004</b>	Collected: 09/23/21 10:35	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 18:06	7440-09-7	
Sodium	<b>4.9</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:06	7440-23-5	
Calcium	<b>5.0</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:06	7440-70-2	
Magnesium	<b>2.6</b>	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:06	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	09/28/21 09:20	09/28/21 19:03	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:03	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>61.0</b>	mg/L	10.0	1		09/29/21 19:08		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>31.9</b>	mg/L	5.0	1		09/27/21 18:32		
Alkalinity, Total as CaCO <sub>3</sub>	<b>31.9</b>	mg/L	5.0	1		09/27/21 18:32		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.4</b>	mg/L	1.0	1		09/27/21 00:50	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 00:50	16984-48-8	
Sulfate	<b>2.3</b>	mg/L	1.0	1		09/27/21 00:50	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: LR+9A (Surface)</b>								
<b>Lab ID: 92563212005</b>								
Collected: 09/23/21 10:42 Received: 09/24/21 08:24 Matrix: Water								
<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	09/28/21 10:00	09/28/21 18:11	7440-09-7	
Sodium	5.0	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:11	7440-23-5	
Calcium	5.0	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:11	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:11	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	09/28/21 09:20	09/28/21 19:09	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:09	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	56.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	31.8	mg/L	5.0	1		09/27/21 18:38		
Alkalinity, Total as CaCO <sub>3</sub>	31.8	mg/L	5.0	1		09/27/21 18:38		
<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		09/27/21 01:05	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 01:05	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		09/27/21 01:05	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

<b>Sample: LR+8 (Surface)</b>		<b>Lab ID: 92563212006</b>		Collected: 09/23/21 10:22	Received: 09/24/21 08:24	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>2.7</b>	mg/L	0.20	1	09/28/21 10:00	09/28/21 18:15	7440-09-7	
Sodium	<b>5.2</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:15	7440-23-5	
Calcium	<b>5.3</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:15	7440-70-2	
Magnesium	<b>2.6</b>	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:15	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	09/28/21 09:20	09/28/21 19:26	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:26	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>56.0</b>	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>31.5</b>	mg/L	5.0	1		09/27/21 18:44		
Alkalinity, Total as CaCO <sub>3</sub>	<b>31.5</b>	mg/L	5.0	1		09/27/21 18:44		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.3</b>	mg/L	1.0	1		09/27/21 01:20	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 01:20	16984-48-8	
Sulfate	<b>2.2</b>	mg/L	1.0	1		09/27/21 01:20	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

<b>Sample: LR+8 (Mid)</b>		<b>Lab ID: 92563212007</b>	Collected: 09/23/21 10:22	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 18:20	7440-09-7	
Sodium	<b>5.1</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:20	7440-23-5	
Calcium	<b>5.2</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:20	7440-70-2	
Magnesium	<b>2.6</b>	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:20	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	09/28/21 09:20	09/28/21 19:32	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:32	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>65.0</b>	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>31.9</b>	mg/L	5.0	1		09/27/21 18:50		
Alkalinity, Total as CaCO <sub>3</sub>	<b>31.9</b>	mg/L	5.0	1		09/27/21 18:50		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.3</b>	mg/L	1.0	1		09/27/21 02:05	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 02:05	16984-48-8	
Sulfate	<b>2.2</b>	mg/L	1.0	1		09/27/21 02:05	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Sample: LR+8 (Bottom)	Lab ID: 92563212008	Collected: 09/23/21 10:22		Received: 09/24/21 08:24		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	09/28/21 10:00	09/28/21 18:25	7440-09-7	
Sodium	5.0	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:25	7440-23-5	
Calcium	5.0	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:25	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:25	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	09/28/21 09:20	09/28/21 19:37	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:37	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	54.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.7	mg/L	5.0	1		09/27/21 18:55		
Alkalinity, Total as CaCO <sub>3</sub>	32.7	mg/L	5.0	1		09/27/21 18:55		
<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		09/27/21 02:20	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 02:20	16984-48-8	
Sulfate	2.2	mg/L	1.0	1		09/27/21 02:20	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Sample: LR+9 (Surface)	Lab ID: 92563212009	Collected: 09/23/21 10:10		Received: 09/24/21 08:24		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	09/28/21 10:00	09/28/21 18:42	7440-09-7	
Sodium	5.1	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:42	7440-23-5	
Calcium	5.2	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:42	7440-70-2	
Magnesium	2.6	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:42	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	09/28/21 09:20	09/28/21 19:43	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:43	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	50.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.8	mg/L	5.0	1		09/27/21 19:01		
Alkalinity, Total as CaCO <sub>3</sub>	32.8	mg/L	5.0	1		09/27/21 19:01		
<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		09/27/21 02:35	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 02:35	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		09/27/21 02:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond

Pace Project No.: 92563212

Sample: LR+9 (Mid)	Lab ID: 92563212010	Collected: 09/23/21 10:10	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 18:47	7440-09-7	
Sodium	5.0	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:47	7440-23-5	
Calcium	5.0	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:47	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:47	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	09/28/21 09:20	09/28/21 19:49	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:49	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	58.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	33.0	mg/L	5.0	1		09/27/21 19:19		
Alkalinity, Total as CaCO <sub>3</sub>	33.0	mg/L	5.0	1		09/27/21 19:19		
<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		09/27/21 02:50	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 02:50	16984-48-8	
Sulfate	2.3	mg/L	1.0	1		09/27/21 02:50	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

<b>Sample: LR+9 (Bottom)</b>		<b>Lab ID: 92563212011</b>	Collected: 09/23/21 10:10	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 18:52	7440-09-7	
Sodium	<b>4.9</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:52	7440-23-5	
Calcium	<b>4.9</b>	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:52	7440-70-2	
Magnesium	<b>2.5</b>	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:52	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	09/28/21 09:20	09/28/21 19:55	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 19:55	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	<b>57.0</b>	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	<b>33.5</b>	mg/L	5.0	1		09/27/21 19:24		
Alkalinity, Total as CaCO <sub>3</sub>	<b>33.5</b>	mg/L	5.0	1		09/27/21 19:24		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville						
Chloride	<b>3.4</b>	mg/L	1.0	1		09/27/21 03:05	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 03:05	16984-48-8	
Sulfate	<b>2.3</b>	mg/L	1.0	1		09/27/21 03:05	14808-79-8	M1

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Sample: LR-10 (Surface)		Lab ID: 92563212012	Collected: 09/23/21 09:51	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 18:56	7440-09-7	
Sodium	4.8	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:56	7440-23-5	
Calcium	4.8	mg/L	1.0	1	09/28/21 10:00	09/28/21 18:56	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	09/28/21 10:00	09/28/21 18:56	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	09/28/21 09:20	09/28/21 20:00	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 20:00	7440-48-4	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	60.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.9	mg/L	5.0	1		09/27/21 19:39		
Alkalinity, Total as CaCO <sub>3</sub>	32.9	mg/L	5.0	1		09/27/21 19:39		
<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		09/27/21 03:50	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 03:50	16984-48-8	
Sulfate	2.4	mg/L	1.0	1		09/27/21 03:50	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Sample: LR-10 (Mid)	Lab ID: 92563212013	Collected: 09/23/21 09:51	Received: 09/24/21 08:24	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	2.4	mg/L	0.20	1	09/28/21 10:00	09/28/21 19:01	7440-09-7	
Sodium	4.8	mg/L	1.0	1	09/28/21 10:00	09/28/21 19:01	7440-23-5	
Calcium	4.8	mg/L	1.0	1	09/28/21 10:00	09/28/21 19:01	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	09/28/21 10:00	09/28/21 19:01	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	09/28/21 09:20	09/28/21 20:06	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 20:06	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	53.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	33.0	mg/L	5.0	1		09/27/21 19:44		
Alkalinity, Total as CaCO <sub>3</sub>	33.0	mg/L	5.0	1		09/27/21 19:44		
<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		09/27/21 04:05	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 04:05	16984-48-8	
Sulfate	2.4	mg/L	1.0	1		09/27/21 04:05	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Sample: LR-10 (Bottom)	Lab ID: 92563212014	Collected: 09/23/21 09:51	Received: 09/24/21 08:24	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	09/28/21 10:00	09/28/21 19:06	7440-09-7	
Sodium	4.8	mg/L	1.0	1	09/28/21 10:00	09/28/21 19:06	7440-23-5	
Calcium	4.9	mg/L	1.0	1	09/28/21 10:00	09/28/21 19:06	7440-70-2	
Magnesium	2.5	mg/L	0.050	1	09/28/21 10:00	09/28/21 19:06	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	09/28/21 09:20	09/28/21 20:12	7440-42-8	
Cobalt	ND	mg/L	0.0050	1	09/28/21 09:20	09/28/21 20:12	7440-48-4	
<b>2540C Total Dissolved Solids</b>								
Analytical Method: SM 2540C-2011								
Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	53.0	mg/L	10.0	1		09/29/21 19:09		
<b>2320B Alkalinity</b>								
Analytical Method: SM 2320B-2011								
Pace Analytical Services - Asheville								
Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	32.6	mg/L	5.0	1		09/27/21 19:50		
Alkalinity, Total as CaCO <sub>3</sub>	32.6	mg/L	5.0	1		09/27/21 19:50		
<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		09/27/21 04:20	16887-00-6	
Fluoride	ND	mg/L	0.10	1		09/27/21 04:20	16984-48-8	
Sulfate	2.4	mg/L	1.0	1		09/27/21 04:20	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

QC Batch: 649634 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

METHOD BLANK: 3406953 Matrix: Water  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	09/28/21 14:47	
Magnesium	mg/L	ND	0.050	09/28/21 14:47	
Potassium	mg/L	ND	0.20	09/28/21 14:47	
Sodium	mg/L	ND	1.0	09/28/21 14:47	

LABORATORY CONTROL SAMPLE: 3406954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	110	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.1	113	80-120	
Sodium	mg/L	1	1.1	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406955 3406956

Parameter	Units	92563212001		3406955		3406956		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	5.0	1	1	6.0	6.3	95	126	75-125	5	20	M1	
Magnesium	mg/L	2.5	1	1	3.6	3.7	109	113	75-125	1	20		
Potassium	mg/L	2.5	1	1	3.5	3.6	99	116	75-125	5	20		
Sodium	mg/L	4.7	1	1	5.7	6.0	107	134	75-125	5	20	M1	

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

QC Batch: 649637 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

METHOD BLANK: 3406966 Matrix: Water  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	09/28/21 18:17	
Cobalt	mg/L	ND	0.0050	09/28/21 18:17	

LABORATORY CONTROL SAMPLE: 3406967

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	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406968 3406969

Parameter	Units	92563212002		3406968		3406969		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Boron	mg/L	ND	1	1	1.0	0.99	101	98	75-125	3	20			
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20			

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

QC Batch: 649984 Analysis Method: SM 2540C-2011  
QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

METHOD BLANK: 3409087 Matrix: Water  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	09/29/21 19:07	

LABORATORY CONTROL SAMPLE: 3409088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	406	102	90-111	

SAMPLE DUPLICATE: 3409089

Parameter	Units	92563085003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	65.0	88.0	30	10	D6

SAMPLE DUPLICATE: 3409090

Parameter	Units	92563212005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	56.0	53.0	6	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

QC Batch: 649465 Analysis Method: SM 2320B-2011  
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

METHOD BLANK: 3406338 Matrix: Water  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	09/27/21 17:30	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	09/27/21 17:30	

LABORATORY CONTROL SAMPLE: 3406339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

LABORATORY CONTROL SAMPLE: 3406340

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.3	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406341 3406342

Parameter	Units	92562667004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	ND	50	50	50	21.9	20.8	44	42	80-120	5	25 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406343 3406344

Parameter	Units	92563212009 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	32.8	50	50	50	83.8	83.8	102	102	80-120	0	25

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.: 92563212

QC Batch:	649414	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:	92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014		

METHOD BLANK: 3406122 Matrix: Water  
Associated Lab Samples: 92563212001, 92563212002, 92563212003, 92563212004, 92563212005, 92563212006, 92563212007, 92563212008, 92563212009, 92563212010, 92563212011, 92563212012, 92563212013, 92563212014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/26/21 23:06	
Fluoride	mg/L	ND	0.10	09/26/21 23:06	
Sulfate	mg/L	ND	1.0	09/26/21 23:06	

LABORATORY CONTROL SAMPLE: 3406123

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.2	96	90-110	
Fluoride	mg/L	2.5	2.3	93	90-110	
Sulfate	mg/L	50	49.8	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406124 3406125

Parameter	Units	92563212001		3406125		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	50	56.2	57.0	106	108	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	104	105	90-110	1	10
Sulfate	mg/L	1.8	50	50	56.4	57.2	109	111	90-110	1	10 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406126 3406127

Parameter	Units	92563212011		3406127		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.4	50	50	56.8	57.8	107	109	90-110	2	10
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	104	106	90-110	2	10
Sulfate	mg/L	2.3	50	50	57.2	58.2	110	112	90-110	2	10 M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

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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  
Pace Project No.: 92563212

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563212001	LR-1 (Surface)	EPA 3010A	649634	EPA 6010D	649673
92563212002	LR-1 (Mid)	EPA 3010A	649634	EPA 6010D	649673
92563212003	LR-1 (Bottom)	EPA 3010A	649634	EPA 6010D	649673
92563212004	LR+8A (Surface)	EPA 3010A	649634	EPA 6010D	649673
92563212005	LR+9A (Surface)	EPA 3010A	649634	EPA 6010D	649673
92563212006	LR+8 (Surface)	EPA 3010A	649634	EPA 6010D	649673
92563212007	LR+8 (Mid)	EPA 3010A	649634	EPA 6010D	649673
92563212008	LR+8 (Bottom)	EPA 3010A	649634	EPA 6010D	649673
92563212009	LR+9 (Surface)	EPA 3010A	649634	EPA 6010D	649673
92563212010	LR+9 (Mid)	EPA 3010A	649634	EPA 6010D	649673
92563212011	LR+9 (Bottom)	EPA 3010A	649634	EPA 6010D	649673
92563212012	LR-10 (Surface)	EPA 3010A	649634	EPA 6010D	649673
92563212013	LR-10 (Mid)	EPA 3010A	649634	EPA 6010D	649673
92563212014	LR-10 (Bottom)	EPA 3010A	649634	EPA 6010D	649673
92563212001	LR-1 (Surface)	EPA 3005A	649637	EPA 6020B	649678
92563212002	LR-1 (Mid)	EPA 3005A	649637	EPA 6020B	649678
92563212003	LR-1 (Bottom)	EPA 3005A	649637	EPA 6020B	649678
92563212004	LR+8A (Surface)	EPA 3005A	649637	EPA 6020B	649678
92563212005	LR+9A (Surface)	EPA 3005A	649637	EPA 6020B	649678
92563212006	LR+8 (Surface)	EPA 3005A	649637	EPA 6020B	649678
92563212007	LR+8 (Mid)	EPA 3005A	649637	EPA 6020B	649678
92563212008	LR+8 (Bottom)	EPA 3005A	649637	EPA 6020B	649678
92563212009	LR+9 (Surface)	EPA 3005A	649637	EPA 6020B	649678
92563212010	LR+9 (Mid)	EPA 3005A	649637	EPA 6020B	649678
92563212011	LR+9 (Bottom)	EPA 3005A	649637	EPA 6020B	649678
92563212012	LR-10 (Surface)	EPA 3005A	649637	EPA 6020B	649678
92563212013	LR-10 (Mid)	EPA 3005A	649637	EPA 6020B	649678
92563212014	LR-10 (Bottom)	EPA 3005A	649637	EPA 6020B	649678
92563212001	LR-1 (Surface)	SM 2540C-2011	649984		
92563212002	LR-1 (Mid)	SM 2540C-2011	649984		
92563212003	LR-1 (Bottom)	SM 2540C-2011	649984		
92563212004	LR+8A (Surface)	SM 2540C-2011	649984		
92563212005	LR+9A (Surface)	SM 2540C-2011	649984		
92563212006	LR+8 (Surface)	SM 2540C-2011	649984		
92563212007	LR+8 (Mid)	SM 2540C-2011	649984		
92563212008	LR+8 (Bottom)	SM 2540C-2011	649984		
92563212009	LR+9 (Surface)	SM 2540C-2011	649984		
92563212010	LR+9 (Mid)	SM 2540C-2011	649984		
92563212011	LR+9 (Bottom)	SM 2540C-2011	649984		
92563212012	LR-10 (Surface)	SM 2540C-2011	649984		
92563212013	LR-10 (Mid)	SM 2540C-2011	649984		
92563212014	LR-10 (Bottom)	SM 2540C-2011	649984		
92563212001	LR-1 (Surface)	SM 2320B-2011	649465		
92563212002	LR-1 (Mid)	SM 2320B-2011	649465		
92563212003	LR-1 (Bottom)	SM 2320B-2011	649465		
92563212004	LR+8A (Surface)	SM 2320B-2011	649465		
92563212005	LR+9A (Surface)	SM 2320B-2011	649465		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Branch CCR-Ash Pond  
Pace Project No.: 92563212

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563212006	LR+8 (Surface)	SM 2320B-2011	649465		
92563212007	LR+8 (Mid)	SM 2320B-2011	649465		
92563212008	LR+8 (Bottom)	SM 2320B-2011	649465		
92563212009	LR+9 (Surface)	SM 2320B-2011	649465		
92563212010	LR+9 (Mid)	SM 2320B-2011	649465		
92563212011	LR+9 (Bottom)	SM 2320B-2011	649465		
92563212012	LR-10 (Surface)	SM 2320B-2011	649465		
92563212013	LR-10 (Mid)	SM 2320B-2011	649465		
92563212014	LR-10 (Bottom)	SM 2320B-2011	649465		
92563212001	LR-1 (Surface)	EPA 300.0 Rev 2.1 1993	649414		
92563212002	LR-1 (Mid)	EPA 300.0 Rev 2.1 1993	649414		
92563212003	LR-1 (Bottom)	EPA 300.0 Rev 2.1 1993	649414		
92563212004	LR+8A (Surface)	EPA 300.0 Rev 2.1 1993	649414		
92563212005	LR+9A (Surface)	EPA 300.0 Rev 2.1 1993	649414		
92563212006	LR+8 (Surface)	EPA 300.0 Rev 2.1 1993	649414		
92563212007	LR+8 (Mid)	EPA 300.0 Rev 2.1 1993	649414		
92563212008	LR+8 (Bottom)	EPA 300.0 Rev 2.1 1993	649414		
92563212009	LR+9 (Surface)	EPA 300.0 Rev 2.1 1993	649414		
92563212010	LR+9 (Mid)	EPA 300.0 Rev 2.1 1993	649414		
92563212011	LR+9 (Bottom)	EPA 300.0 Rev 2.1 1993	649414		
92563212012	LR-10 (Surface)	EPA 300.0 Rev 2.1 1993	649414		
92563212013	LR-10 (Mid)	EPA 300.0 Rev 2.1 1993	649414		
92563212014	LR-10 (Bottom)	EPA 300.0 Rev 2.1 1993	649414		

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# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A** Required Client Information: **Section B** Required Project Information: **Section C** Invoice Information:

Company: ARCADIS - Atlanta  
 Address: 2839 Paces Ferry Rd  
 Atlanta, GA 30339  
 Report To: Jolu Abraham, Allison Keeler, Ben Hodges  
 Copy To: Warren Johnson  
 Purchase Order #: SCS10382775  
 Project Name: Plant Branch  
 Project #: \_\_\_\_\_  
 Phone: 678.485.5238  
 Fax: \_\_\_\_\_  
 Requested Due Date: 5 day TAT  
 Attention: Jolu Abraham  
 Company Name: GPC  
 Address: \_\_\_\_\_  
 Pace Quote: \_\_\_\_\_  
 Pace Project Manager: Mayla Parks@pacealabs.com  
 Pace Profile #: 2239

Regulatory Agency

Page : 2 Of 2

W0#: 92563212

PH: HP  
 CLIENT: GR-ARCADIS  
 Due Date: 10/01/21

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique</small>	MATRIX <small>Dredging Water Waste Water Wastewater Product Semi-solid Oil Wipe Air Other Tissue</small>	CODE <small>DM WT WV P SL OL WP AR OT TS</small>	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS		Preservatives		Analyses Test	Request	Residual Chlorine (Y/N)	
				START DATE	END DATE		Unpreserved	H2SO4	HNO3	HCl				NaOH
1	LR-10 (mid)		WT	WT	9/23/2021	0951								
2	LR-10 (bottom)		WT	G	9/23/2021	0951						X	X	X
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

**ADITIONAL COMMENTS**  
 CCR App III<sup>1</sup> - Boron, Calcium, Chloride, Fluoride, Sulfate, TDS  
 Major Ions<sup>2</sup> - Mg, Na, K, total alkalinity, bicarbonate alkalinity

**RELINQUISHED BY / AFFILIATION**  
 [Signature] / Arcadis  
 DATE: 9/24/21  
 TIME: 0824

**ACCEPTED BY / AFFILIATION**  
 [Signature]  
 DATE: 9/24/21  
 TIME: 0824

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: [Signature]  
 DATE: 9-23-21

	Document Name: <b>Sample Condition Upon Receipt(SCUR)</b>	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: <b>F-CAR-CS-033-Rev.07</b>	Issuing Authority: Pace Carolinas Quality Office

**Laboratory receiving samples:**

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name: Arcadis Atlanta

Project #

**WO# : 92563212**

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

PM: MP Due Date: 10/01/21  
 CLIENT: GA-ArcadAt1

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 7/24/21

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: 5.2 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): 5.2

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

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: <u>W</u>		
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: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt(SCUR)

Document No.:  
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020

Page 2 of 2

Issuing Authority:  
Pace Carolinas Quality Office

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

Project #

WO#: 92563212

PM: MP

Due Date: 10/01/21

CLIENT: GA-ArcadAt1

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

\*\*Bottom half of box is to list number of bottles

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)	BP4C-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)	AG3A(DG3A)-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 Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (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)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1																													
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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



**APPENDIX A**

# FIELD DATA FORMS

# Low-Flow Test Report:

Test Date / Time: 9/22/2021 9:31:18 AM

Project: Plant Branch

Operator Name: E. Rheams

<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: 54.30 ft</b> <b>Total Depth: 64.30 ft</b> <b>Initial Depth to Water: 11.02 ft</b>	<b>Pump Type: Dedicte</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake from TOC: 59 ft</b> <b>Estimated Total Volume Pumped: 7200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 1.53 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/22/2021 9:31 AM	00:00	6.92 pH	22.47 °C	182.45 µS/cm	3.58 mg/L	5.66 NTU	137.4 mV	11.02 ft	240.00 ml/min
9/22/2021 9:36 AM	05:00	6.82 pH	19.46 °C	173.63 µS/cm	3.08 mg/L	13.60 NTU	105.4 mV	12.84 ft	240.00 ml/min
9/22/2021 9:41 AM	10:00	6.82 pH	19.28 °C	175.49 µS/cm	3.20 mg/L	7.08 NTU	119.9 mV	13.48 ft	120.00 ml/min
9/22/2021 9:46 AM	15:00	6.80 pH	20.30 °C	175.32 µS/cm	2.56 mg/L	5.61 NTU	105.8 mV	13.09 ft	120.00 ml/min
9/22/2021 9:51 AM	20:00	6.78 pH	20.40 °C	173.51 µS/cm	1.95 mg/L	3.15 NTU	95.6 mV	12.85 ft	120.00 ml/min
9/22/2021 9:56 AM	25:00	6.78 pH	20.48 °C	176.63 µS/cm	1.52 mg/L	3.29 NTU	77.2 mV	12.70 ft	120.00 ml/min
9/22/2021 10:01 AM	30:00	6.79 pH	20.40 °C	182.04 µS/cm	1.09 mg/L	2.92 NTU	61.5 mV	12.65 ft	120.00 ml/min
9/22/2021 10:06 AM	35:00	6.81 pH	20.53 °C	189.30 µS/cm	0.77 mg/L	2.98 NTU	45.8 mV	12.60 ft	120.00 ml/min
9/22/2021 10:11 AM	40:00	6.82 pH	20.57 °C	189.51 µS/cm	0.61 mg/L	2.95 NTU	42.3 mV	12.55 ft	120.00 ml/min
9/22/2021 10:16 AM	45:00	6.80 pH	20.57 °C	187.15 µS/cm	0.55 mg/L	2.39 NTU	37.8 mV	12.55 ft	120.00 ml/min
9/22/2021 10:21 AM	50:00	6.78 pH	20.71 °C	183.23 µS/cm	0.57 mg/L	2.94 NTU	37.1 mV	12.55 ft	120.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 10:54:04 AM

Project: Plant Branch (25)

Operator Name: E. Rheams

<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: 34.60 ft</b> <b>Total Depth: 44.60 ft</b> <b>Initial Depth to Water: 11.01 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake from TOC: 39 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: 0.09 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/22/2021 10:54 AM	00:00	6.00 pH	20.52 °C	71.17 µS/cm	3.43 mg/L	0.89 NTU	54.8 mV	11.01 ft	220.00 ml/min
9/22/2021 10:59 AM	05:00	6.09 pH	20.04 °C	69.90 µS/cm	1.86 mg/L	1.17 NTU	50.7 mV	11.04 ft	220.00 ml/min
9/22/2021 11:04 AM	10:00	6.09 pH	19.90 °C	69.75 µS/cm	1.37 mg/L	0.91 NTU	49.4 mV	11.08 ft	220.00 ml/min
9/22/2021 11:09 AM	15:00	6.09 pH	20.03 °C	69.25 µS/cm	1.11 mg/L	0.73 NTU	49.0 mV	11.10 ft	220.00 ml/min
9/22/2021 11:14 AM	20:00	6.08 pH	19.80 °C	69.20 µS/cm	1.00 mg/L	0.67 NTU	48.9 mV	11.10 ft	220.00 ml/min
9/22/2021 11:19 AM	25:00	6.07 pH	19.90 °C	69.11 µS/cm	0.88 mg/L	0.70 NTU	49.9 mV	11.10 ft	220.00 ml/min
9/22/2021 11:24 AM	30:00	6.06 pH	19.95 °C	69.21 µS/cm	0.87 mg/L	0.71 NTU	49.7 mV	11.10 ft	220.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 12:14:37 PM

Project: Plant Branch

Operator Name: E. Rheams

<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: 51.20 ft</b> <b>Total Depth: 61.20 ft</b> <b>Initial Depth to Water: 11.86 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake from TOC: 56 ft</b> <b>Estimated Total Volume Pumped: 4200 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.25 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/21/2021 12:14 PM	00:00	6.13 pH	22.28 °C	185.52 µS/cm	3.86 mg/L	2.19 NTU	100.6 mV	11.86 ft	280.00 ml/min
9/21/2021 12:19 PM	05:00	6.27 pH	19.65 °C	186.42 µS/cm	4.81 mg/L	2.84 NTU	107.7 mV	12.09 ft	280.00 ml/min
9/21/2021 12:24 PM	10:00	6.31 pH	19.32 °C	186.67 µS/cm	4.94 mg/L	3.46 NTU	82.1 mV	12.11 ft	280.00 ml/min
9/21/2021 12:29 PM	15:00	6.32 pH	19.23 °C	186.32 µS/cm	5.01 mg/L	4.36 NTU	100.5 mV	12.11 ft	280.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 1:07:37 PM

Project: Plant Branch

Operator Name: E. Rheams

<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: 30.0 ft</b> <b>Total Depth: 40.0 ft</b> <b>Initial Depth to Water: 11.95 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake from TOC: 35 ft</b> <b>Estimated Total Volume Pumped: 20000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: 0.15 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/21/2021 1:07 PM	00:00	6.17 pH	21.56 °C	174.24 µS/cm	2.56 mg/L	11.43 NTU	89.4 mV	11.95 ft	100.00 ml/min
9/21/2021 1:12 PM	05:00	6.30 pH	19.59 °C	188.63 µS/cm	1.79 mg/L	9.42 NTU	76.6 mV	12.10 ft	100.00 ml/min
9/21/2021 1:17 PM	10:00	6.35 pH	19.33 °C	195.86 µS/cm	1.62 mg/L	10.60 NTU	87.2 mV	12.10 ft	100.00 ml/min
9/21/2021 1:22 PM	15:00	6.36 pH	19.96 °C	197.66 µS/cm	1.59 mg/L	10.09 NTU	68.7 mV	12.10 ft	100.00 ml/min
9/21/2021 1:27 PM	20:00	6.37 pH	20.08 °C	200.31 µS/cm	1.57 mg/L	11.00 NTU	65.8 mV	12.10 ft	100.00 ml/min
9/21/2021 1:32 PM	25:00	6.37 pH	20.47 °C	198.97 µS/cm	1.57 mg/L	11.50 NTU	64.2 mV	12.10 ft	100.00 ml/min
9/21/2021 1:37 PM	30:00	6.36 pH	22.36 °C	204.08 µS/cm	1.63 mg/L	11.67 NTU	74.4 mV	12.10 ft	100.00 ml/min
9/21/2021 1:42 PM	35:00	6.36 pH	23.88 °C	200.67 µS/cm	1.68 mg/L	12.70 NTU	64.3 mV	12.10 ft	100.00 ml/min
9/21/2021 1:47 PM	40:00	6.36 pH	21.95 °C	195.97 µS/cm	1.72 mg/L	11.90 NTU	64.6 mV	12.10 ft	100.00 ml/min
9/21/2021 1:50 PM	43:09	6.36 pH	21.55 °C	195.35 µS/cm	1.67 mg/L	12.00 NTU	65.2 mV	12.10 ft	100.00 ml/min
9/21/2021 1:55 PM	48:09	6.37 pH	21.28 °C	198.27 µS/cm	1.66 mg/L	12.50 NTU	75.0 mV	12.10 ft	100.00 ml/min
9/21/2021 2:00 PM	53:09	6.37 pH	20.87 °C	197.97 µS/cm	1.68 mg/L	11.80 NTU	63.1 mV	12.10 ft	100.00 ml/min
9/21/2021 2:05 PM	58:09	6.36 pH	21.46 °C	196.16 µS/cm	1.69 mg/L	11.87 NTU	74.0 mV	12.10 ft	100.00 ml/min
9/21/2021 2:10 PM	01:03:09	6.37 pH	21.48 °C	197.22 µS/cm	1.73 mg/L	11.00 NTU	74.9 mV	12.10 ft	100.00 ml/min
9/21/2021 2:15 PM	01:08:09	6.36 pH	21.20 °C	195.81 µS/cm	1.74 mg/L	11.69 NTU	75.7 mV	12.10 ft	100.00 ml/min
9/21/2021 2:20 PM	01:13:09	6.36 pH	20.76 °C	195.20 µS/cm	1.75 mg/L	11.97 NTU	63.4 mV	12.10 ft	100.00 ml/min

9/21/2021 2:25 PM	01:18:09	6.36 pH	20.44 °C	195.60 µS/cm	1.74 mg/L	11.23 NTU	74.6 mV	12.10 ft	100.00 ml/min
9/21/2021 2:30 PM	01:23:09	6.36 pH	20.57 °C	195.44 µS/cm	1.74 mg/L	12.42 NTU	75.0 mV	12.10 ft	100.00 ml/min
9/21/2021 2:35 PM	01:28:09	6.36 pH	20.48 °C	193.84 µS/cm	1.76 mg/L	11.04 NTU	62.9 mV	12.10 ft	100.00 ml/min
9/21/2021 2:40 PM	01:33:09	6.36 pH	20.57 °C	194.27 µS/cm	1.77 mg/L	11.17 NTU	62.0 mV	12.10 ft	100.00 ml/min
9/21/2021 2:45 PM	01:38:09	6.35 pH	20.61 °C	194.42 µS/cm	1.79 mg/L	11.75 NTU	73.1 mV	12.10 ft	100.00 ml/min
9/21/2021 2:50 PM	01:43:09	6.36 pH	20.66 °C	193.98 µS/cm	1.82 mg/L	12.32 NTU	74.4 mV	12.10 ft	100.00 ml/min
9/21/2021 2:55 PM	01:48:09	6.36 pH	20.35 °C	193.44 µS/cm	1.80 mg/L	11.98 NTU	75.0 mV	12.10 ft	100.00 ml/min
9/21/2021 3:00 PM	01:53:09	6.35 pH	20.17 °C	193.58 µS/cm	1.81 mg/L	12.09 NTU	75.3 mV	12.10 ft	100.00 ml/min
9/21/2021 3:05 PM	01:58:09	6.35 pH	20.17 °C	192.92 µS/cm	1.81 mg/L	10.53 NTU	63.0 mV	12.10 ft	100.00 ml/min
9/21/2021 3:10 PM	02:03:09	6.35 pH	20.29 °C	192.62 µS/cm	1.82 mg/L	11.01 NTU	62.1 mV	12.10 ft	100.00 ml/min
9/21/2021 3:15 PM	02:08:09	6.35 pH	20.26 °C	191.80 µS/cm	1.82 mg/L	10.01 NTU	73.3 mV	12.10 ft	100.00 ml/min
9/21/2021 3:20 PM	02:13:09	6.36 pH	20.79 °C	193.12 µS/cm	2.28 mg/L	10.93 NTU	75.0 mV	12.10 ft	100.00 ml/min
9/21/2021 3:25 PM	02:18:09	6.36 pH	20.84 °C	191.53 µS/cm	2.14 mg/L	11.12 NTU	75.8 mV	12.10 ft	100.00 ml/min
9/21/2021 3:30 PM	02:23:09	6.35 pH	20.76 °C	191.81 µS/cm	2.03 mg/L	10.42 NTU	76.6 mV	12.10 ft	100.00 ml/min
9/21/2021 3:35 PM	02:28:09	6.36 pH	20.76 °C	190.81 µS/cm	1.97 mg/L	10.56 NTU	76.9 mV	12.10 ft	100.00 ml/min
9/21/2021 3:40 PM	02:33:09	6.36 pH	20.58 °C	190.07 µS/cm	1.97 mg/L	11.77 NTU	77.0 mV	12.10 ft	100.00 ml/min
9/21/2021 3:45 PM	02:38:09	6.36 pH	20.67 °C	190.01 µS/cm	1.96 mg/L	11.04 NTU	76.9 mV	12.10 ft	100.00 ml/min
9/21/2021 3:50 PM	02:43:09	6.35 pH	20.53 °C	194.96 µS/cm	1.98 mg/L	10.49 NTU	76.2 mV	12.10 ft	100.00 ml/min
9/21/2021 3:55 PM	02:48:09	6.36 pH	20.56 °C	190.31 µS/cm	1.94 mg/L	11.02 NTU	63.6 mV	12.10 ft	100.00 ml/min
9/21/2021 4:00 PM	02:53:09	6.36 pH	20.53 °C	190.54 µS/cm	1.95 mg/L	9.87 NTU	75.1 mV	12.10 ft	100.00 ml/min
9/21/2021 4:05 PM	02:58:09	6.36 pH	20.35 °C	190.04 µS/cm	1.94 mg/L	9.65 NTU	75.7 mV	12.10 ft	100.00 ml/min
9/21/2021 4:10 PM	03:03:09	6.36 pH	20.22 °C	190.37 µS/cm	1.91 mg/L	8.43 NTU	76.1 mV	12.10 ft	100.00 ml/min
9/21/2021 4:15 PM	03:08:09	6.36 pH	19.95 °C	193.24 µS/cm	1.99 mg/L	8.28 NTU	75.9 mV	12.10 ft	100.00 ml/min
9/21/2021 4:20 PM	03:13:09	6.36 pH	19.63 °C	190.18 µS/cm	1.94 mg/L	6.78 NTU	63.2 mV	12.10 ft	100.00 ml/min
9/21/2021 4:25 PM	03:18:09	6.36 pH	19.18 °C	189.75 µS/cm	1.95 mg/L	2.29 NTU	74.4 mV	12.10 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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BRGWA-5S

# Low-Flow Test Report:

Test Date / Time: 9/22/2021 11:32:05 AM

Project: Plant Branch (5)

Operator Name: Erin D Hondt

<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: 26.2 ft</b>	<b>Pump Type: Dedicated</b> <b>Tubing Type: Polyethylene Pump</b> <b>Intake From TOC: 47.9 ft</b> <b>Estimated Total Volume Pumped: 3400 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.85 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/22/2021 11:32 AM	00:00	6.25 pH	20.93 °C	56.02 µS/cm	6.41 mg/L	8.84 NTU	84.7 mV	26.20 ft	200.00 ml/min
9/22/2021 11:37 AM	05:00	6.42 pH	20.57 °C	55.95 µS/cm	6.38 mg/L	4.38 NTU	86.5 mV	26.98 ft	200.00 ml/min
9/22/2021 11:42 AM	10:00	6.47 pH	20.67 °C	56.06 µS/cm	6.40 mg/L	1.42 NTU	84.7 mV	27.05 ft	200.00 ml/min
9/22/2021 11:47 AM	15:00	6.48 pH	21.11 °C	56.07 µS/cm	6.39 mg/L	0.99 NTU	84.8 mV	27.05 ft	200.00 ml/min
9/22/2021 11:49 AM	17:00	6.48 pH	21.33 °C	55.25 µS/cm	6.42 mg/L	0.99 NTU	84.6 mV	27.05 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 10:58:33 AM

Project: Plant Branch (2)

Operator Name: Erin D Hondt

<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: 70.54 ft</b> <b>Total Depth: 80.54 ft</b> <b>Initial Depth to Water: 50.13 ft</b>	<b>Pump Type: Dedicated</b> <b>Tubing Type: Polyethylene Pump</b> <b>Intake From TOC: 75.54 ft</b> <b>Estimated Total Volume Pumped: 28526 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 240 ml/min</b> <b>Final Draw Down: 13.82 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

Turbidity meter issues prevented data collection from 12:00 - 1:00. Replaced meter to resume readings.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/21/2021 10:58 AM	00:00	6.17 pH	21.55 °C	158.37 µS/cm	0.86 mg/L	8.55 NTU	91.2 mV	50.13 ft	280.00 ml/min
9/21/2021 11:00 AM	02:07	6.19 pH	21.51 °C	150.07 µS/cm	0.57 mg/L	8.14 NTU	91.2 mV	52.79 ft	280.00 ml/min
9/21/2021 11:05 AM	07:07	6.18 pH	21.21 °C	143.12 µS/cm	0.53 mg/L	7.49 NTU	90.8 mV	55.15 ft	280.00 ml/min
9/21/2021 11:10 AM	12:07	6.18 pH	22.06 °C	140.70 µS/cm	1.93 mg/L	7.22 NTU	89.0 mV	56.00 ft	280.00 ml/min
9/21/2021 11:15 AM	17:07	6.21 pH	21.69 °C	140.42 µS/cm	1.84 mg/L	8.71 NTU	88.6 mV	57.50 ft	280.00 ml/min
9/21/2021 11:20 AM	22:07	6.21 pH	21.95 °C	137.05 µS/cm	1.71 mg/L	8.44 NTU	88.0 mV	58.58 ft	280.00 ml/min
9/21/2021 11:25 AM	27:07	6.21 pH	21.82 °C	132.21 µS/cm	2.48 mg/L	8.91 NTU	86.4 mV	59.70 ft	280.00 ml/min
9/21/2021 11:30 AM	32:07	6.21 pH	23.00 °C	132.60 µS/cm	2.57 mg/L	8.44 NTU	84.0 mV	59.85 ft	200.00 ml/min
9/21/2021 11:35 AM	37:07	6.21 pH	22.44 °C	130.03 µS/cm	2.84 mg/L	6.34 NTU	84.3 mV	60.04 ft	200.00 ml/min
9/21/2021 11:40 AM	42:07	6.22 pH	22.72 °C	127.12 µS/cm	3.44 mg/L	5.90 NTU	83.2 mV	60.40 ft	200.00 ml/min
9/21/2021 11:45 AM	47:07	6.23 pH	23.91 °C	125.70 µS/cm	3.98 mg/L	6.58 NTU	81.6 mV	60.70 ft	200.00 ml/min
9/21/2021 11:50 AM	52:07	6.26 pH	24.25 °C	128.86 µS/cm	4.16 mg/L	6.75 NTU	80.2 mV	60.92 ft	200.00 ml/min
9/21/2021 11:55 AM	57:07	6.30 pH	24.24 °C	130.80 µS/cm	4.11 mg/L	7.51 NTU	80.4 mV	60.95 ft	200.00 ml/min
9/21/2021 12:00 PM	01:02:07	6.36 pH	22.89 °C	136.80 µS/cm	4.39 mg/L	6.88 NTU	81.0 mV	61.03 ft	200.00 ml/min
9/21/2021 12:05 PM	01:07:07	6.41 pH	22.82 °C	141.59 µS/cm	4.61 mg/L	6.38 NTU	81.0 mV	61.20 ft	200.00 ml/min



9/21/2021 12:10 PM	01:12:07	6.44 pH	23.61 °C	144.60 µS/cm	4.76 mg/L	6.89 NTU	79.4 mV	61.20 ft	100.00 ml/min
9/21/2021 12:15 PM	01:17:07	6.45 pH	24.11 °C	144.04 µS/cm	4.72 mg/L	7.46 NTU	79.5 mV	61.20 ft	100.00 ml/min
9/21/2021 12:20 PM	01:22:07	6.45 pH	25.38 °C	144.45 µS/cm	4.64 mg/L		77.8 mV	61.20 ft	100.00 ml/min
9/21/2021 12:25 PM	01:27:07	6.45 pH	26.29 °C	142.89 µS/cm	4.51 mg/L		77.5 mV	61.20 ft	100.00 ml/min
9/21/2021 12:30 PM	01:32:07	6.47 pH	24.84 °C	142.98 µS/cm	4.55 mg/L		78.9 mV	61.20 ft	100.00 ml/min
9/21/2021 12:35 PM	01:37:07	6.49 pH	23.84 °C	145.87 µS/cm	4.78 mg/L		79.9 mV	61.20 ft	100.00 ml/min
9/21/2021 12:40 PM	01:42:07	6.52 pH	22.96 °C	146.28 µS/cm	5.02 mg/L		80.9 mV	61.20 ft	100.00 ml/min
9/21/2021 12:45 PM	01:46:54	6.53 pH	21.82 °C	146.27 µS/cm	5.20 mg/L		81.4 mV	61.20 ft	100.00 ml/min
9/21/2021 12:50 PM	01:51:54	6.53 pH	22.05 °C	148.05 µS/cm	5.38 mg/L		82.2 mV	61.20 ft	100.00 ml/min
9/21/2021 12:55 PM	01:56:54	6.52 pH	22.73 °C	144.67 µS/cm	5.26 mg/L		82.5 mV	61.20 ft	100.00 ml/min
9/21/2021 1:00 PM	02:01:54	6.50 pH	23.52 °C	143.83 µS/cm	4.94 mg/L		83.4 mV	61.20 ft	100.00 ml/min
9/21/2021 1:02 PM	02:04:18	6.50 pH	22.20 °C	139.88 µS/cm	4.65 mg/L	0.81 NTU	84.5 mV	61.65 ft	100.00 ml/min
9/21/2021 1:05 PM	02:06:33	6.51 pH	22.70 °C	141.52 µS/cm	4.87 mg/L	0.07 NTU	83.2 mV	61.65 ft	100.00 ml/min
9/21/2021 1:10 PM	02:11:33	6.52 pH	22.28 °C	142.90 µS/cm	4.74 mg/L	0.97 NTU	83.9 mV	61.65 ft	100.00 ml/min
9/21/2021 1:30 PM	02:31:27	6.51 pH	22.46 °C	146.45 µS/cm	4.86 mg/L	3.63 NTU	84.2 mV	63.25 ft	240.00 ml/min
9/21/2021 1:35 PM	02:36:27	6.51 pH	22.10 °C	148.36 µS/cm	4.72 mg/L	2.75 NTU	84.5 mV	63.70 ft	240.00 ml/min
9/21/2021 1:40 PM	02:41:27	6.54 pH	22.58 °C	149.57 µS/cm	4.93 mg/L	2.66 NTU	83.8 mV	63.89 ft	240.00 ml/min
9/21/2021 1:45 PM	02:46:27	6.53 pH	22.77 °C	151.59 µS/cm	4.79 mg/L	3.52 NTU	84.2 mV	63.95 ft	240.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 10:18:44 AM

Project: Plant Branch

Operator Name: Erin D Hondt

<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: 51.01 ft</b> <b>Total Depth: 61.01 ft</b> <b>Initial Depth to Water: 50.4 ft</b>	<b>Pump Type: Dedicated</b> <b>Tubing Type: Polyethylene Pump</b> <b>Intake From TOC: 56.01 ft</b> <b>Estimated Total Volume Pumped: 5600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0.62 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/21/2021 10:18 AM	00:00	5.68 pH	21.02 °C	65.47 µS/cm	6.33 mg/L	1.62 NTU	98.1 mV	50.40 ft	280.00 ml/min
9/21/2021 10:23 AM	05:00	5.80 pH	20.84 °C	72.06 µS/cm	6.50 mg/L	6.54 NTU	95.9 mV	51.02 ft	280.00 ml/min
9/21/2021 10:28 AM	10:00	5.84 pH	20.96 °C	74.32 µS/cm	6.54 mg/L	4.32 NTU	94.6 mV	51.02 ft	280.00 ml/min
9/21/2021 10:33 AM	15:00	5.87 pH	21.11 °C	75.99 µS/cm	6.60 mg/L	1.34 NTU	90.7 mV	51.02 ft	280.00 ml/min
9/21/2021 10:38 AM	20:00	5.87 pH	21.22 °C	75.88 µS/cm	6.60 mg/L	0.15 NTU	92.1 mV	51.02 ft	280.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 9/22/2021 10:07:04 AM

**Project:** Plant Branch (4)

**Operator Name:** Erin D Hondt

<b>Location Name:</b> BRGWA-23S <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 33.8 ft <b>Total Depth:</b> 43.8 ft <b>Initial Depth to Water:</b> 37.1 ft	<b>Pump Type:</b> Dedicated <b>Tubing Type:</b> Polyethylene <b>Pump Intake From TOC:</b> 33.8 ft <b>Estimated Total Volume Pumped:</b> 12.4 L <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 120 ml/min <b>Final Draw Down:</b> 1.19 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850751
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/22/2021 10:07 AM	00:00	5.72 pH	22.18 °C	147.92 µS/cm	4.82 mg/L	3.80 NTU	97.3 mV	38.29 ft	120.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/28/2021 10:51:43 AM

Project: Plant Branch

Operator Name: Brian Steele

<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: 14.41 ft</b> <b>Total Depth: 24.41 ft</b> <b>Initial Depth to Water: 9.55 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 20.41 ft</b> <b>Estimated Total Volume Pumped: 9352 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 320 ml/min</b> <b>Final Draw Down: 0.15 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 10:51 AM	00:00	7.42 pH	24.33 °C	1.49 µS/cm	8.40 mg/L	20.10 NTU	189.9 mV	9.55 ft	240.00 ml/min
9/28/2021 10:52 AM	00:44	7.41 pH	24.31 °C	1.47 µS/cm	8.40 mg/L	17.60 NTU	204.7 mV	9.55 ft	240.00 ml/min
9/28/2021 10:57 AM	05:38	5.92 pH	19.94 °C	363.92 µS/cm	1.03 mg/L	14.40 NTU	54.7 mV	9.70 ft	320.00 ml/min
9/28/2021 11:02 AM	10:38	5.95 pH	19.81 °C	365.67 µS/cm	0.29 mg/L	5.73 NTU	93.5 mV	9.70 ft	320.00 ml/min
9/28/2021 11:07 AM	15:38	5.95 pH	19.81 °C	370.37 µS/cm	0.27 mg/L	2.27 NTU	104.8 mV	9.70 ft	320.00 ml/min
9/28/2021 11:12 AM	20:38	5.95 pH	19.80 °C	370.12 µS/cm	0.22 mg/L	1.37 NTU	110.7 mV	9.70 ft	320.00 ml/min
9/28/2021 11:17 AM	25:38	5.96 pH	19.80 °C	372.78 µS/cm	0.28 mg/L	1.23 NTU	114.9 mV	9.70 ft	320.00 ml/min
9/28/2021 11:22 AM	30:38	5.97 pH	19.81 °C	372.46 µS/cm	0.29 mg/L	0.85 NTU	131.1 mV	9.70 ft	320.00 ml/min

## Samples

Sample ID:	Description:
BRWGC-25I	App 3 App 4
BRGWC-25I	Radium

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 1:41:51 PM

Project: Plant Branch

Operator Name: Brian Steele

<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: 14.41 ft</b> <b>Total Depth: 24.41 ft</b> <b>Initial Depth to Water: 7.84 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 20.41 ft</b> <b>Estimated Total Volume Pumped: 8153 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.03 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 1:41 PM	00:00	5.56 pH	24.08 °C	368.52 µS/cm	3.42 mg/L	1.87 NTU	103.3 mV	7.87 ft	200.00 ml/min
9/28/2021 1:42 PM	00:35	5.59 pH	23.40 °C	364.85 µS/cm	2.52 mg/L	1.60 NTU	118.9 mV	7.87 ft	200.00 ml/min
9/28/2021 1:42 PM	00:46	5.61 pH	23.15 °C	365.64 µS/cm	2.30 mg/L	1.50 NTU	122.2 mV	7.87 ft	200.00 ml/min
9/28/2021 1:47 PM	05:46	5.71 pH	21.45 °C	367.05 µS/cm	0.77 mg/L	1.91 NTU	132.0 mV	7.87 ft	200.00 ml/min
9/28/2021 1:52 PM	10:46	5.76 pH	21.73 °C	365.84 µS/cm	0.25 mg/L	1.19 NTU	139.0 mV	7.87 ft	200.00 ml/min
9/28/2021 1:57 PM	15:46	5.77 pH	21.50 °C	363.80 µS/cm	0.17 mg/L	1.20 NTU	167.0 mV	7.87 ft	200.00 ml/min
9/28/2021 2:02 PM	20:46	5.80 pH	21.59 °C	361.84 µS/cm	0.32 mg/L	0.86 NTU	143.2 mV	7.87 ft	200.00 ml/min
9/28/2021 2:07 PM	25:46	5.81 pH	21.33 °C	361.93 µS/cm	0.20 mg/L	0.93 NTU	161.8 mV	7.87 ft	200.00 ml/min
9/28/2021 2:12 PM	30:46	5.81 pH	21.39 °C	362.00 µS/cm	0.19 mg/L	0.85 NTU	162.3 mV	7.87 ft	200.00 ml/min
9/28/2021 2:17 PM	35:46	5.80 pH	21.20 °C	363.30 µS/cm	0.13 mg/L	0.77 NTU	138.5 mV	7.87 ft	200.00 ml/min
9/28/2021 2:22 PM	40:46	5.82 pH	21.15 °C	361.51 µS/cm	0.28 mg/L	0.58 NTU	161.7 mV	7.87 ft	200.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-271	EB-2 App III/IV

BRGWC-271

Rad

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 9/28/2021 12:06:15 PM

**Project:** Plant Branch (2)

**Operator Name:** Brian Steele

<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: 13.63 ft</b> <b>Total Depth: 23.63 ft</b> <b>Initial Depth to Water: 10.5 ft</b>	<b>Pump Type: Dedicte</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 18.6 ft</b> <b>Estimated Total Volume Pumped: 9800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 280 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 12:06 PM	00:00	3.17 pH	22.58 °C	632.77 µS/cm	3.81 mg/L	1.76 NTU	264.3 mV	10.50 ft	280.00 ml/min
9/28/2021 12:11 PM	05:00	3.97 pH	21.77 °C	556.61 µS/cm	1.27 mg/L	1.31 NTU	254.0 mV	10.50 ft	280.00 ml/min
9/28/2021 12:16 PM	10:00	4.17 pH	21.68 °C	555.90 µS/cm	1.30 mg/L	1.19 NTU	206.2 mV	10.50 ft	280.00 ml/min
9/28/2021 12:21 PM	15:00	4.21 pH	21.69 °C	555.24 µS/cm	1.15 mg/L	0.76 NTU	200.2 mV	10.50 ft	280.00 ml/min
9/28/2021 12:26 PM	20:00	4.22 pH	21.73 °C	545.02 µS/cm	1.18 mg/L	0.50 NTU	196.3 mV	10.50 ft	280.00 ml/min
9/28/2021 12:31 PM	25:00	4.23 pH	21.73 °C	550.88 µS/cm	1.07 mg/L	0.63 NTU	193.9 mV	10.50 ft	280.00 ml/min
9/28/2021 12:36 PM	30:00	4.23 pH	21.73 °C	554.52 µS/cm	1.20 mg/L	0.59 NTU	192.7 mV	10.50 ft	280.00 ml/min
9/28/2021 12:41 PM	35:00	4.23 pH	21.65 °C	548.93 µS/cm	1.06 mg/L	0.42 NTU	191.9 mV	10.50 ft	280.00 ml/min
9/28/2021 12:46 PM	40:00	4.23 pH	21.58 °C	550.20 µS/cm	1.08 mg/L	0.42 NTU	191.1 mV	10.50 ft	280.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-29I	App III/IV Rad Extra RAD

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 3:59:48 PM

Project: Plant Branch (21)

Operator Name: D. Herrera

<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: 12.35 ft</b> <b>Total Depth: 22.35 ft</b> <b>Initial Depth to Water: 4.14 ft</b>	<b>Pump Type: Dedicated</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 18 ft</b> <b>Estimated Total Volume Pumped: 6000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0.41 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 3:59 PM	00:00	6.27 pH	25.69 °C	1,015.4 µS/cm	5.92 mg/L	6.39 NTU	123.0 mV	4.14 ft	200.00 ml/min
9/28/2021 4:04 PM	05:00	6.24 pH	25.40 °C	1,167.9 µS/cm	3.41 mg/L	26.60 NTU	115.4 mV	4.50 ft	200.00 ml/min
9/28/2021 4:09 PM	10:00	6.31 pH	21.33 °C	1,436.3 µS/cm	0.57 mg/L	13.23 NTU	114.8 mV	4.50 ft	200.00 ml/min
9/28/2021 4:14 PM	15:00	6.33 pH	20.90 °C	1,440.1 µS/cm	0.21 mg/L	8.72 NTU	114.4 mV	4.50 ft	200.00 ml/min
9/28/2021 4:19 PM	20:00	6.33 pH	20.75 °C	1,456.4 µS/cm	0.32 mg/L	5.86 NTU	113.7 mV	4.55 ft	200.00 ml/min
9/28/2021 4:24 PM	25:00	6.33 pH	20.69 °C	1,457.9 µS/cm	0.36 mg/L	3.70 NTU	112.6 mV	4.55 ft	200.00 ml/min
9/28/2021 4:29 PM	30:00	6.33 pH	20.65 °C	1,468.9 µS/cm	0.15 mg/L	3.29 NTU	112.3 mV	4.55 ft	200.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-30I	DUP-3 and extra Rad



# Low-Flow Test Report:

**Test Date / Time:** 9/28/2021 3:29:17 PM

**Project:** Plant Branch

**Operator Name:** Brian Steele

<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 ft</b> <b>Initial Depth to Water: 37.6 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 44 ft</b> <b>Estimated Total Volume Pumped: 7800 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 120 ml/min</b> <b>Final Draw Down: 0.7 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 3:29 PM	00:00	5.77 pH	21.48 °C	421.29 µS/cm	6.21 mg/L	1.30 NTU	173.0 mV	37.60 ft	120.00 ml/min
9/28/2021 3:34 PM	05:00	5.77 pH	21.32 °C	417.91 µS/cm	5.56 mg/L	2.44 NTU	158.0 mV	38.30 ft	120.00 ml/min
9/28/2021 3:39 PM	10:00	5.78 pH	21.42 °C	424.38 µS/cm	5.10 mg/L	2.15 NTU	153.9 mV	38.30 ft	120.00 ml/min
9/28/2021 3:44 PM	15:00	5.80 pH	21.41 °C	434.87 µS/cm	4.84 mg/L	1.28 NTU	181.5 mV	38.30 ft	120.00 ml/min
9/28/2021 3:49 PM	20:00	5.80 pH	21.19 °C	439.10 µS/cm	4.72 mg/L	2.96 NTU	182.6 mV	38.30 ft	120.00 ml/min
9/28/2021 3:54 PM	25:00	5.81 pH	21.11 °C	443.61 µS/cm	4.49 mg/L	3.04 NTU	181.8 mV	38.30 ft	120.00 ml/min
9/28/2021 3:59 PM	30:00	5.81 pH	21.06 °C	444.36 µS/cm	4.42 mg/L	2.58 NTU	180.7 mV	38.30 ft	120.00 ml/min
9/28/2021 4:04 PM	35:00	5.81 pH	20.97 °C	445.07 µS/cm	4.40 mg/L	1.89 NTU	179.6 mV	38.30 ft	120.00 ml/min
9/28/2021 4:09 PM	40:00	5.81 pH	21.08 °C	445.00 µS/cm	4.39 mg/L	1.50 NTU	179.1 mV	38.30 ft	120.00 ml/min
9/28/2021 4:14 PM	45:00	5.81 pH	20.53 °C	447.56 µS/cm	4.44 mg/L	1.38 NTU	178.1 mV	38.30 ft	120.00 ml/min
9/28/2021 4:19 PM	50:00	5.81 pH	20.47 °C	448.82 µS/cm	4.53 mg/L	1.19 NTU	177.1 mV	38.30 ft	120.00 ml/min
9/28/2021 4:24 PM	55:00	5.81 pH	20.39 °C	447.91 µS/cm	4.52 mg/L	0.82 NTU	176.5 mV	38.30 ft	120.00 ml/min
9/28/2021 4:29 PM	01:00:00	5.82 pH	20.30 °C	448.82 µS/cm	4.50 mg/L	0.63 NTU	175.6 mV	38.30 ft	120.00 ml/min
9/28/2021 4:34 PM	01:05:00	5.82 pH	20.39 °C	448.60 µS/cm	4.47 mg/L	1.02 NTU	175.2 mV	38.30 ft	120.00 ml/min

**Samples**

Sample ID:	Description:
BRGWC-32S	App III/IV rad

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 2:18:16 PM

Project: Plant Branch (20)

Operator Name: D. Herrera

<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: 47 ft</b> <b>Total Depth: 57 ft</b> <b>Initial Depth to Water: 25.51 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 52 ft</b> <b>Estimated Total Volume Pumped: 7500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.34 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 2:18 PM	00:00	6.22 pH	30.72 °C	262.83 µS/cm	2.59 mg/L	5.89 NTU	142.9 mV	25.51 ft	250.00 ml/min
9/28/2021 2:23 PM	05:00	6.21 pH	24.15 °C	284.68 µS/cm	0.40 mg/L	3.18 NTU	140.8 mV	25.85 ft	250.00 ml/min
9/28/2021 2:28 PM	10:00	6.21 pH	23.97 °C	289.07 µS/cm	0.27 mg/L	3.60 NTU	139.1 mV	25.85 ft	250.00 ml/min
9/28/2021 2:33 PM	15:00	6.21 pH	23.93 °C	289.78 µS/cm	0.21 mg/L	4.27 NTU	134.4 mV	25.85 ft	250.00 ml/min
9/28/2021 2:38 PM	20:00	6.21 pH	23.66 °C	291.77 µS/cm	0.18 mg/L	4.90 NTU	132.1 mV	25.85 ft	250.00 ml/min
9/28/2021 2:43 PM	25:00	6.21 pH	23.46 °C	290.79 µS/cm	0.16 mg/L	1.96 NTU	128.2 mV	25.85 ft	250.00 ml/min
9/28/2021 2:48 PM	30:00	6.22 pH	23.39 °C	291.58 µS/cm	0.15 mg/L	2.13 NTU	126.6 mV	25.85 ft	250.00 ml/min

## Samples

Sample ID:	Description:
PZ-44	

# Low-Flow Test Report:

Test Date / Time: 9/23/2021 11:54:45 AM

Project: Plant Branch

Operator Name: E. Rheams

<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: 50.45 ft</b> <b>Total Depth: 60.45 ft</b> <b>Initial Depth to Water: 10.99 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 52.21 ft</b> <b>Estimated Total Volume Pumped: 4400 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 220 ml/min</b> <b>Final Draw Down: 0.37 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/23/2021 11:54 AM	00:00	6.32 pH	23.11 °C	434.15 µS/cm	4.49 mg/L	1.93 NTU	68.5 mV	10.99 ft	220.00 ml/min
9/23/2021 11:59 AM	05:00	6.01 pH	22.30 °C	474.89 µS/cm	0.90 mg/L	10.48 NTU	58.0 mV	11.38 ft	220.00 ml/min
9/23/2021 12:04 PM	10:00	6.00 pH	22.44 °C	467.11 µS/cm	0.70 mg/L	2.50 NTU	55.4 mV	11.40 ft	220.00 ml/min
9/23/2021 12:09 PM	15:00	5.98 pH	22.47 °C	457.15 µS/cm	0.52 mg/L	2.58 NTU	47.3 mV	11.36 ft	220.00 ml/min
9/23/2021 12:14 PM	20:00	5.95 pH	22.31 °C	448.79 µS/cm	0.41 mg/L	2.40 NTU	44.5 mV	11.36 ft	220.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/23/2021 1:08:09 PM

Project: Plant McDonough (29)

Operator Name: E. Rheams

<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: 82.00 ft</b> <b>Total Depth: 92.00 ft</b> <b>Initial Depth to Water: 25.84 ft</b>	<b>Pump Type: Dedicited</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 87.55 ft</b> <b>Estimated Total Volume Pumped: 4500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 140 ml/min</b> <b>Final Draw Down: 0.61 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/23/2021 1:08 PM	00:00	6.67 pH	22.80 °C	1,700.0 µS/cm	4.42 mg/L	6.13 NTU	-35.1 mV	25.84 ft	240.00 ml/min
9/23/2021 1:13 PM	05:00	5.87 pH	20.84 °C	2,358.7 µS/cm	1.29 mg/L	11.30 NTU	-30.3 mV	26.90 ft	240.00 ml/min
9/23/2021 1:18 PM	10:00	5.78 pH	21.37 °C	2,389.5 µS/cm	0.98 mg/L	7.47 NTU	-37.9 mV	26.60 ft	140.00 ml/min
9/23/2021 1:23 PM	15:00	5.75 pH	21.64 °C	2,379.3 µS/cm	0.83 mg/L	4.21 NTU	-20.6 mV	26.45 ft	140.00 ml/min
9/23/2021 1:28 PM	20:00	5.74 pH	21.93 °C	2,380.8 µS/cm	0.76 mg/L	3.22 NTU	-6.2 mV	26.45 ft	140.00 ml/min
9/23/2021 1:33 PM	25:00	5.74 pH	21.77 °C	2,383.8 µS/cm	0.68 mg/L	2.36 NTU	-25.2 mV	26.45 ft	140.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/27/2021 12:32:38 PM

Project: Plant Branch (12)

Operator Name: D. Herrera

<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: 37.89 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 60 ft</b> <b>Estimated Total Volume Pumped: 7500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.16 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/27/2021 12:32 PM	00:00	5.19 pH	22.94 °C	1,830.3 µS/cm	1.35 mg/L	2.40 NTU	81.5 mV	37.89 ft	250.00 ml/min
9/27/2021 12:37 PM	05:00	5.24 pH	22.27 °C	1,830.3 µS/cm	1.52 mg/L	3.04 NTU	76.9 mV	38.05 ft	250.00 ml/min
9/27/2021 12:42 PM	10:00	5.09 pH	22.08 °C	1,838.8 µS/cm	0.63 mg/L	3.80 NTU	73.6 mV	38.05 ft	250.00 ml/min
9/27/2021 12:47 PM	15:00	5.07 pH	22.09 °C	1,835.2 µS/cm	0.39 mg/L	3.72 NTU	71.0 mV	38.05 ft	250.00 ml/min
9/27/2021 12:52 PM	20:00	5.06 pH	22.22 °C	1,845.9 µS/cm	0.35 mg/L	3.84 NTU	69.0 mV	38.05 ft	250.00 ml/min
9/27/2021 12:57 PM	25:00	5.05 pH	22.09 °C	1,854.1 µS/cm	0.34 mg/L	4.55 NTU	67.3 mV	38.05 ft	250.00 ml/min
9/27/2021 1:02 PM	30:00	5.05 pH	22.35 °C	1,850.6 µS/cm	0.35 mg/L	4.40 NTU	65.9 mV	38.05 ft	250.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-50	DUP-2

# Low-Flow Test Report:

**Test Date / Time:** 9/28/2021 9:22:24 AM

**Project:** Plant Branch (2)

**Operator Name:** Jude Waguespack

<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> 96 ft <b>Total Depth:</b> 106 ft <b>Initial Depth to Water:</b> 65.3 ft	<b>Pump Type:</b> Bladder <b>Tubing Type:</b> Polyethylene <b>Pump Intake From TOC:</b> 101 ft <b>Estimated Total Volume Pumped:</b> 300 ml <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 0.9 ft	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 850767
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## Test Notes:

Well evacuated 09.27.21 -  
44.25 L removed

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 9:22 AM	00:00	6.65 pH	20.75 °C	1,864.5 µS/cm	9.18 mg/L	9.35 NTU	90.6 mV	65.30 ft	150.00 ml/min
9/28/2021 9:23 AM	01:00	6.49 pH	20.66 °C	1,927.4 µS/cm	7.41 mg/L	8.10 NTU	84.7 mV	66.20 ft	150.00 ml/min
9/28/2021 9:24 AM	02:00	6.23 pH	20.58 °C	1,870.3 µS/cm	4.36 mg/L	4.82 NTU	81.4 mV	66.20 ft	150.00 ml/min

## Samples

Sample ID:	Description:
PZ-50D	

# Low-Flow Test Report:

Test Date / Time: 9/27/2021 2:36:00 PM

Project: Plant Branch (15)

Operator Name: D. Herrera

<b>Location Name: PZ-51S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 35.4 ft</b> <b>Total Depth: 45.4 ft</b> <b>Initial Depth to Water: 38.17 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 42 ft</b> <b>Estimated Total Volume Pumped: 15000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 3.48 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/27/2021 2:36 PM	00:00	6.06 pH	21.14 °C	137.89 µS/cm	0.88 mg/L	5.90 NTU	51.7 mV	38.17 ft	250.00 ml/min
9/27/2021 2:41 PM	05:00	6.05 pH	21.43 °C	138.90 µS/cm	0.63 mg/L	5.82 NTU	51.4 mV	40.65 ft	250.00 ml/min
9/27/2021 2:46 PM	10:00	6.04 pH	21.29 °C	140.15 µS/cm	0.59 mg/L	6.18 NTU	52.4 mV	40.97 ft	250.00 ml/min
9/27/2021 2:51 PM	15:00	6.05 pH	21.24 °C	140.22 µS/cm	0.50 mg/L	6.01 NTU	52.7 mV	41.15 ft	250.00 ml/min
9/27/2021 2:56 PM	20:00	6.05 pH	21.33 °C	140.45 µS/cm	0.61 mg/L	5.83 NTU	52.6 mV	41.25 ft	250.00 ml/min
9/27/2021 3:01 PM	25:00	6.04 pH	21.31 °C	139.58 µS/cm	0.44 mg/L	6.20 NTU	53.5 mV	41.35 ft	250.00 ml/min
9/27/2021 3:06 PM	30:00	6.04 pH	21.39 °C	135.89 µS/cm	0.38 mg/L	6.77 NTU	53.5 mV	41.45 ft	250.00 ml/min
9/27/2021 3:11 PM	35:00	6.04 pH	21.38 °C	139.42 µS/cm	0.35 mg/L	6.97 NTU	54.0 mV	41.45 ft	250.00 ml/min
9/27/2021 3:16 PM	40:00	6.04 pH	21.46 °C	139.48 µS/cm	0.31 mg/L	5.43 NTU	54.1 mV	41.55 ft	250.00 ml/min
9/27/2021 3:21 PM	45:00	6.03 pH	21.58 °C	138.88 µS/cm	0.29 mg/L	4.20 NTU	54.5 mV	41.58 ft	250.00 ml/min
9/27/2021 3:26 PM	50:00	6.04 pH	21.58 °C	139.43 µS/cm	0.29 mg/L	3.12 NTU	54.3 mV	41.60 ft	250.00 ml/min
9/27/2021 3:31 PM	55:00	6.03 pH	21.56 °C	138.39 µS/cm	0.40 mg/L	1.56 NTU	54.7 mV	41.65 ft	250.00 ml/min
9/27/2021 3:36 PM	01:00:00	6.04 pH	21.58 °C	137.25 µS/cm	0.44 mg/L	0.70 NTU	55.0 mV	41.65 ft	250.00 ml/min

## Samples



Sample ID:	Description:
PZ-51S	

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 9/27/2021 5:13:20 PM

Project: Plant Branch (17)

Operator Name: J.Waguespack

<b>Location Name: PZ-511</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 58 ft</b> <b>Total Depth: 68 ft</b> <b>Initial Depth to Water: 38 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 63 ft</b> <b>Estimated Total Volume Pumped: 5500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 1.15 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/27/2021 5:13 PM	00:00	5.68 pH	29.39 °C	1,381.1 µS/cm	5.64 mg/L	6.89 NTU	60.0 mV	38.00 ft	250.00 ml/min
9/27/2021 5:18 PM	05:00	5.62 pH	21.99 °C	1,489.3 µS/cm	4.86 mg/L	6.41 NTU	71.6 mV	38.80 ft	250.00 ml/min
9/27/2021 5:23 PM	10:00	5.40 pH	21.20 °C	1,529.2 µS/cm	1.81 mg/L	5.96 NTU	75.8 mV	39.05 ft	300.00 ml/min
9/27/2021 5:28 PM	15:00	5.36 pH	21.11 °C	1,520.6 µS/cm	0.87 mg/L	6.54 NTU	75.9 mV	39.05 ft	300.00 ml/min
9/27/2021 5:33 PM	20:00	5.34 pH	21.14 °C	1,540.3 µS/cm	0.48 mg/L	4.37 NTU	76.2 mV	39.15 ft	300.00 ml/min

## Samples

Sample ID:	Description:
PZ-511	

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 9:13:11 AM

Project: Plant Branch (18)

Operator Name: D. Herrera

<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: 39.9 ft</b>	<b>Pump Type: Dedicated</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 101 ft</b> <b>Estimated Total Volume Pumped: 28750 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 100 ml/min</b> <b>Final Draw Down: -34.4 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 9:13 AM	00:00	7.27 pH	20.23 °C	1,006.6 µS/cm	8.27 mg/L	4.11 NTU	120.8 mV	39.90 ft	250.00 ml/min
9/28/2021 9:18 AM	05:00	6.94 pH	20.31 °C	1,025.9 µS/cm	1.95 mg/L	5.12 NTU	79.8 mV	41.75 ft	250.00 ml/min
9/28/2021 9:23 AM	10:00	7.01 pH	20.22 °C	1,027.3 µS/cm	0.95 mg/L	3.39 NTU	59.1 mV	42.89 ft	250.00 ml/min
9/28/2021 9:28 AM	15:00	7.06 pH	20.31 °C	1,026.6 µS/cm	1.19 mg/L	3.21 NTU	40.7 mV	42.89 ft	250.00 ml/min
9/28/2021 9:33 AM	20:00	7.10 pH	20.35 °C	1,026.0 µS/cm	1.75 mg/L	2.77 NTU	17.8 mV	45.50 ft	250.00 ml/min
9/28/2021 9:38 AM	25:00	7.14 pH	20.44 °C	1,026.6 µS/cm	2.40 mg/L	2.78 NTU	-0.2 mV	46.41 ft	250.00 ml/min
9/28/2021 9:43 AM	30:00	7.17 pH	20.61 °C	1,027.3 µS/cm	2.88 mg/L	2.80 NTU	-14.8 mV	46.70 ft	250.00 ml/min
9/28/2021 9:48 AM	35:00	7.18 pH	20.89 °C	1,020.9 µS/cm	2.89 mg/L	2.90 NTU	-32.4 mV	47.05 ft	250.00 ml/min
9/28/2021 9:53 AM	40:00	7.18 pH	21.22 °C	1,015.3 µS/cm	3.38 mg/L	2.96 NTU	-42.0 mV	47.70 ft	250.00 ml/min
9/28/2021 9:58 AM	45:00	7.18 pH	21.42 °C	1,006.6 µS/cm	3.64 mg/L	3.15 NTU	-46.7 mV	48.55 ft	250.00 ml/min
9/28/2021 10:03 AM	50:00	7.18 pH	21.65 °C	1,004.8 µS/cm	4.01 mg/L	3.09 NTU	-48.4 mV	49.30 ft	250.00 ml/min
9/28/2021 10:08 AM	55:00	7.18 pH	21.90 °C	1,000.9 µS/cm	4.12 mg/L	4.82 NTU	-49.4 mV	49.50 ft	250.00 ml/min
9/28/2021 10:13 AM	01:00:00	7.19 pH	22.00 °C	997.07 µS/cm	4.48 mg/L	4.10 NTU	-50.5 mV	49.91 ft	250.00 ml/min
9/28/2021 10:18 AM	01:05:00	7.18 pH	22.14 °C	993.87 µS/cm	4.50 mg/L	4.53 NTU	-48.1 mV	50.06 ft	250.00 ml/min
9/28/2021 10:23 AM	01:10:00	7.18 pH	22.36 °C	988.99 µS/cm	4.81 mg/L	4.47 NTU	-50.7 mV	51.70 ft	250.00 ml/min

9/28/2021 10:28 AM	01:15:00	7.18 pH	22.45 °C	986.62 µS/cm	4.91 mg/L	4.56 NTU	-50.4 mV	52.21 ft	250.00 ml/min
9/28/2021 10:33 AM	01:20:00	7.18 pH	22.54 °C	984.17 µS/cm	5.26 mg/L	4.32 NTU	-50.5 mV	52.98 ft	250.00 ml/min
9/28/2021 10:38 AM	01:25:00	7.18 pH	22.67 °C	984.73 µS/cm	5.30 mg/L	3.98 NTU	-50.9 mV	53.30 ft	250.00 ml/min
9/28/2021 10:43 AM	01:30:00	7.18 pH	22.88 °C	983.81 µS/cm	5.96 mg/L	3.79 NTU	-50.4 mV	53.65 ft	250.00 ml/min
9/28/2021 10:48 AM	01:35:00	7.18 pH	23.01 °C	984.00 µS/cm	6.08 mg/L	4.75 NTU	-49.9 mV	54.38 ft	250.00 ml/min
9/28/2021 10:53 AM	01:40:00	7.17 pH	23.23 °C	980.95 µS/cm	6.62 mg/L	4.68 NTU	-48.8 mV	54.73 ft	250.00 ml/min
9/28/2021 10:58 AM	01:45:00	7.17 pH	23.47 °C	971.90 µS/cm	6.71 mg/L	2.99 NTU	-48.8 mV	55.21 ft	250.00 ml/min
9/28/2021 11:03 AM	01:50:00	7.18 pH	23.30 °C	983.99 µS/cm	6.37 mg/L	3.31 NTU	-49.7 mV	55.42 ft	250.00 ml/min
9/28/2021 11:08 AM	01:55:00	7.18 pH	23.35 °C	983.63 µS/cm	5.88 mg/L	2.97 NTU	-50.3 mV	55.50 ft	100.00 ml/min

## Samples

Sample ID:	Description:
PZ-51D	

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 4:00:58 PM

Project: Plant Branch

Operator Name: Jude Waguespack

<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: 66.6 ft</b> <b>Total Depth: 76.6 ft</b> <b>Initial Depth to Water: 39 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 71 ft</b> <b>Estimated Total Volume Pumped: 3750 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.65 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 4:00 PM	00:00	7.22 pH	27.29 °C	403.27 µS/cm	2.96 mg/L	6.66 NTU	76.5 mV	39.00 ft	250.00 ml/min
9/28/2021 4:05 PM	05:00	6.84 pH	21.06 °C	539.96 µS/cm	1.58 mg/L	3.58 NTU	-52.7 mV	39.55 ft	250.00 ml/min
9/28/2021 4:10 PM	10:00	6.84 pH	20.61 °C	547.46 µS/cm	0.58 mg/L	2.80 NTU	-62.6 mV	39.60 ft	250.00 ml/min
9/28/2021 4:15 PM	15:00	6.81 pH	20.57 °C	544.08 µS/cm	0.42 mg/L	2.53 NTU	-61.0 mV	39.65 ft	250.00 ml/min

## Samples

Sample ID:	Description:
PZ-52I	FB-3; EB-3

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 2:14:21 PM

Project: Plant Branch

Operator Name: Jude Waguespack

<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: 65.93 ft</b> <b>Total Depth: 75.93 ft</b> <b>Initial Depth to Water: 35.55 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 70 ft</b> <b>Estimated Total Volume Pumped: 3750 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.47 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 2:14 PM	00:00	5.46 pH	29.20 °C	657.98 µS/cm	3.65 mg/L	10.57 NTU	172.5 mV	35.55 ft	250.00 ml/min
9/28/2021 2:19 PM	05:00	5.40 pH	22.22 °C	673.77 µS/cm	0.87 mg/L	6.91 NTU	134.9 mV	36.00 ft	250.00 ml/min
9/28/2021 2:24 PM	10:00	5.39 pH	21.88 °C	675.08 µS/cm	0.43 mg/L	5.01 NTU	167.0 mV	36.02 ft	250.00 ml/min
9/28/2021 2:29 PM	15:00	5.37 pH	22.05 °C	694.37 µS/cm	0.31 mg/L	3.97 NTU	114.4 mV	36.02 ft	250.00 ml/min

## Samples

Sample ID:	Description:
PZ-571	

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 12:25:37 PM

Project: Plant Branch (19)

Operator Name: D. Herrera

<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: 53.93 ft</b> <b>Total Depth: 63.93 ft</b> <b>Initial Depth to Water: 37.78 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 12500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.04 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 12:25 PM	00:00	3.63 pH	32.20 °C	1,197.3 µS/cm	6.35 mg/L	25.70 NTU	169.9 mV	37.78 ft	250.00 ml/min
9/28/2021 12:30 PM	05:00	4.02 pH	22.91 °C	1,355.6 µS/cm	0.77 mg/L	23.20 NTU	108.4 mV	37.82 ft	250.00 ml/min
9/28/2021 12:35 PM	10:00	4.02 pH	22.58 °C	1,396.0 µS/cm	0.60 mg/L	29.10 NTU	107.4 mV	37.82 ft	250.00 ml/min
9/28/2021 12:40 PM	15:00	4.02 pH	22.32 °C	1,403.9 µS/cm	0.51 mg/L	26.30 NTU	111.8 mV	37.82 ft	250.00 ml/min
9/28/2021 12:45 PM	20:00	4.01 pH	22.00 °C	1,399.7 µS/cm	0.45 mg/L	15.98 NTU	119.3 mV	37.82 ft	250.00 ml/min
9/28/2021 12:50 PM	25:00	4.01 pH	22.30 °C	1,405.1 µS/cm	0.41 mg/L	17.90 NTU	129.1 mV	37.82 ft	250.00 ml/min
9/28/2021 12:55 PM	30:00	4.01 pH	22.49 °C	1,404.6 µS/cm	0.36 mg/L	13.40 NTU	142.7 mV	37.82 ft	250.00 ml/min
9/28/2021 1:00 PM	35:00	4.01 pH	22.39 °C	1,402.5 µS/cm	0.31 mg/L	9.45 NTU	161.0 mV	37.82 ft	250.00 ml/min
9/28/2021 1:05 PM	40:00	4.01 pH	22.57 °C	1,408.9 µS/cm	0.27 mg/L	7.06 NTU	181.3 mV	37.82 ft	250.00 ml/min
9/28/2021 1:10 PM	45:00	4.01 pH	22.45 °C	1,403.5 µS/cm	0.24 mg/L	5.77 NTU	205.6 mV	37.82 ft	250.00 ml/min
9/28/2021 1:15 PM	50:00	4.00 pH	22.45 °C	1,402.8 µS/cm	0.21 mg/L	4.85 NTU	221.2 mV	37.82 ft	250.00 ml/min

## Samples

Sample ID:	Description:
PZ-58I	

# Low-Flow Test Report:

Test Date / Time: 9/28/2021 11:41:53 AM

Project: Plant Branch

Operator Name: Jude Waguespack

<b>Location Name: PZ-60I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 50.83 ft</b> <b>Total Depth: 60.83 ft</b> <b>Initial Depth to Water: 37.6 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 55 ft</b> <b>Estimated Total Volume Pumped: 5000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.15 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850767</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/28/2021 11:41 AM	00:00	5.86 pH	26.60 °C	2,854.7 µS/cm	5.89 mg/L	6.99 NTU	127.3 mV	37.60 ft	250.00 ml/min
9/28/2021 11:46 AM	05:00	5.58 pH	22.35 °C	2,948.8 µS/cm	0.78 mg/L	6.54 NTU	113.2 mV	37.70 ft	250.00 ml/min
9/28/2021 11:51 AM	10:00	4.84 pH	21.86 °C	3,064.1 µS/cm	0.34 mg/L	3.80 NTU	189.1 mV	37.75 ft	250.00 ml/min
9/28/2021 11:56 AM	15:00	4.79 pH	21.78 °C	3,072.9 µS/cm	0.26 mg/L	3.22 NTU	233.3 mV	37.75 ft	250.00 ml/min
9/28/2021 12:01 PM	20:00	4.77 pH	21.82 °C	3,072.5 µS/cm	0.22 mg/L	3.30 NTU	360.0 mV	37.75 ft	250.00 ml/min

## Samples

Sample ID:	Description:
PZ-60I	



# Low-Flow Test Report:

Test Date / Time: 9/27/2021 4:16:25 PM

Project: Plant Branch (16)

Operator Name: D. Herrera

<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: 66.03 ft</b> <b>Total Depth: 76.03 ft</b> <b>Initial Depth to Water: 47.8 ft</b>	<b>Pump Type: Bladder</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 71 ft</b> <b>Estimated Total Volume Pumped: 6250 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 0.4 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 850751</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
9/27/2021 4:16 PM	00:00	5.01 pH	21.69 °C	2,177.0 µS/cm	0.47 mg/L	13.40 NTU	56.7 mV	47.80 ft	250.00 ml/min
9/27/2021 4:21 PM	05:00	5.00 pH	21.33 °C	2,183.8 µS/cm	0.31 mg/L	3.46 NTU	54.6 mV	48.10 ft	250.00 ml/min
9/27/2021 4:26 PM	10:00	5.01 pH	21.29 °C	2,164.6 µS/cm	0.27 mg/L	4.03 NTU	52.5 mV	48.20 ft	250.00 ml/min
9/27/2021 4:31 PM	15:00	5.03 pH	21.43 °C	2,151.2 µS/cm	0.26 mg/L	2.73 NTU	50.4 mV	48.25 ft	250.00 ml/min
9/27/2021 4:36 PM	20:00	5.01 pH	21.38 °C	2,184.2 µS/cm	0.23 mg/L	3.80 NTU	48.2 mV	48.20 ft	250.00 ml/min
9/27/2021 4:41 PM	25:00	5.02 pH	21.31 °C	2,165.8 µS/cm	0.21 mg/L	3.98 NTU	47.4 mV	48.20 ft	250.00 ml/min

## Samples

Sample ID:	Description:
PZ-611	

**APPENDIX A**

# FIELD CALIBRATION FORMS

Project Plant Branch  
 Field Staff J.Waguespack / E. Rheams / E. D'Hondt

*\*Include daily mid-day pH check\**

Instrument Calibration

Date: 9.21.21 | 9.22.21 | 9.27.21  
 Time: 06:40 | 08:25

Parameter	Units	Standard	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN _____ iPad # _____	SmarTROLL SN 850767 iPad # 109
DO	% saturation	100	98.21	111.31		98.26
Conductivity	us/cm	4490	4838.7	4448.9		4690.4
pH	S.U.	4.00	4.07	4.03		4.13
pH	S.U.	7.00	6.99	7.03		7.06
pH	S.U.	10.00	9.99	10.02		10.09
ORP	mV	228.00	194.0	212.2		212.8

Turbidity	Units	Standard	LaMotte SN 4392-1914	LaMotte SN 4392-1914	LaMotte SN	LaMotte SN 4392-1914
	NTU	0.0	0.0	0.0		0.0
	NTU	1.0	1.07	1.0		1.0
	NTU	10.0	9.16	9.04		7.84

Date: 9.21.21 | 9.22.21 | 9.23.21  
 Time: 12:35 | 12:42 | 12:09

Parameter	Units	Standard	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN 843593 iPad # 109	SmarTROLL SN _____ iPad # _____
DO	% saturation	100				
Conductivity	us/cm	4490				
pH	S.U.	4.00	4.04		4.06	
pH	S.U.	7.00		7.03		
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Daily Calibration Log

\*Include daily mid-day pH check\*

Project Plant Branch  
 Field Staff J.Waguespack / E. Rheams / E. D'Hondt

Instrument Calibration

Date: 9-28-21 | 9-28-21  
 Time: 7:57 | 7:52

Parameter	Units	Standard	SmarTROLL SN <u>850767</u> iPad # <u>109</u>	SmarTROLL SN <u>843593</u> iPad # <u>81</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	96.62	95.57		
Conductivity	us/cm	4490	4333.3	4857		
pH	S.U.	4.00	3.94	4.05		
pH	S.U.	7.00	7.08	7.03		
pH	S.U.	10.00	10.15	9.99		
ORP	mV	228.00	230.3	171.8		

Turbidity	Units	Standard	LaMotte SN <u>5990-3915</u>	LaMotte SN <u>4392-1914</u>	LaMotte SN	LaMotte SN
	NTU	0.0	0.0	0.0		
	NTU	1.0	1.02	0.94		
	NTU	10.0	9.18	11.26		

Date: 9-28-21  
 Time: 12:45

Parameter	Units	Standard	SmarTROLL SN _____ iPad # _____	SmarTROLL SN <u>843573</u> iPad # <u>81</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100				
Conductivity	us/cm	4490				
pH	S.U.	4.00		4.02		
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN	LaMotte SN	LaMotte SN	LaMotte SN
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

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Project Plant Branch  
 Field Staff J.Waguespack / E. Rheams / E. D'Hondt

\*Include daily mid-day pH check\*

Instrument Calibration

Date: 9/22/21, 9/23/21  
 Time: 8:00, 8:30, 8:00

Parameter	Units	Standard	SmarTROLL SN 850751 iPad # 78	SmarTROLL SN 95075 iPad # 78	SmarTROLL SN 850751 iPad # 78	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	106.74	97.62	103.07	
Conductivity	us/cm	4490	4778.1	4427.8	4498	
pH	S.U.	4.00	4.08	4.089	3.98	
pH	S.U.	7.00	6.96	7.00	7.01	
pH	S.U.	10.00	10.06	10.08	10.03	
ORP	mV	228.00	229	228.8	24.7	

Turbidity	Units	Standard	LaMotte SN 1510-4111	LaMotte SN 1510-4111	LaMotte SN 1510-4111	LaMotte SN _____
	NTU	0.0	0.04	0.04	0.01	
	NTU	1.0	1.0	1.08	1.17	
	NTU	10.0	10.0	10.0	10.00	

Date:  
Time:

Parameter	Units	Standard	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100				
Conductivity	us/cm	4490				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated



\*Include daily mid-day pH check\*

Project Plant Branch  
 Field Staff J.Waguespack / E. Rheams / E. D'Hondt / D. HERRERA

Instrument Calibration

Date: 9/27/2021 / 1056  
 Time: 9/27/2021 / 1056

Parameter	Units	Standard	SmarTROLL SN <u>85075</u> iPad # <u>78</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	<u>90.83</u>			
Conductivity	us/cm	4490	<u>4929.6</u>			
pH	S.U.	4.00	<u>4.16</u>			
pH	S.U.	7.00	<u>7.11</u>			
pH	S.U.	10.00	<u>10.03</u>			
ORP	mV	228.00	<u>201.7</u>			

Turbidity	Units	Standard	LaMotte SN <u>26862</u>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	<u>0.02</u>			
	NTU	1.0	<u>1.0</u>			
	NTU	10.0	<u>10.0</u>			

Date: 9/28/2021  
 Time: 7:26

Parameter	Units	Standard	SmarTROLL SN <u>85075</u> iPad # <u>78</u>	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____	SmarTROLL SN _____ iPad # _____
DO	% saturation	100	<u>92.01</u>			
Conductivity	us/cm	4490	<u>3925.0</u>			
pH	S.U.	4.00	<u>3.30</u>			
pH	S.U.	7.00	<u>7.02</u>			
pH	S.U.	10.00	<u>10.03</u>			
ORP	mV	228.00	<u>234.6</u>			

Turbidity	Units	Standard	LaMotte SN <u>26862</u>	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0	<u>0.01</u>			
	NTU	1.0	<u>1.00</u>			
	NTU	10.0	<u>10.00</u>			

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

**APPENDIX A**

# WELL INSPECTION LOGS



**MEMORANDUM**

Date: January 10, 2022  
To: Joju Abraham – Georgia Power  
CC: Ben Hodges, Regina Linch  
From: Brian Steele/Rachel Kirkman  
Subject: Plant Branch Unit AP-BCD and AP-E - Well Maintenance and Repair Documentation  
Georgia Power Company

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Golder Associates, Inc. (Golder) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Branch during the 2021 semiannual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

<b>Georgia Power Site/Unit</b>	<b>Date Performed</b>	<b>Well ID</b>	<b>Maintenance/ Repair Performed</b>
Plant Branch/ AP-E	9/20/2021	BRGWA-5S	Overgrown
Plant Branch/ AP-E	9/20/2021	BRGWA-5I	Overgrown
Plant Branch/AP-B	9/20/2021	IW-B-2	Overgrown



**WELL INSPECTION FORM**  
**PLANT Branch**

WELL-ID	MONITORING WELL POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage  (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning cap and lock and in good condition  (S) for Satisfactory Discrepancies identified below	a. In good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified  (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Stable/immobile  (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment d. Other (please specify)  (S) for Satisfactory Discrepancies identified below
	↑ or ↓					
BRGWA-2S	↑BOTH	S	S	S	S	S
BRGWA-2I	↑BOTH	S	S	S	S	S
BRGWA-5S	↑BOTH	Overgrown	S	S	S	S
BRGWA-5I	↑BOTH	Overgrown	S	S	S	S
BRGWA-6S	↑BOTH	S	S	S	S	S
BRGWA-12S	↑BCD	S	S	S	S	S
BRGWA-12I	↑BCD	S	S	S	S	S
BRGWA-23S	↑BCD	S	S	S	S	S
BRGWC-25I	↓BCD	S	S	S	S	S
BRGWC-27I	↓BCD	S	S	S	S	S
BRGWC-29I	↓BCD	S	S	S	S	S
BRGWC-30I	↓BCD	S	S	S	S	S
BRGWC-32S	↓BCD	S	S	S	S	S
BRGWC-33S	↓E	S	S	S	S	S
BRGWC-34S	↓E	S	S	S	S	S
BRGWC-35S	↓E	S	S	S	S	S
BRGWC-17S	↓E	S	S	S	S	no pump (9 ft deep)
BRGWC-36S	↓E	S	S	S	S	no pump (perched)
BRGWC-37S	↓E	S	S	S	S	S
BRGWC-38S	↓E	S	S	S	S	S
BRGWC-45	↓BCD	S	S	S	S	pump installed
BRGWC-47	↓BCD	S	S	S	S	pump installed
BRGWC-50	↓BCD	S	S	S	S	pump installed

**WELL INSPECTION FORM**  
**PLANT Branch**

WELL-ID	MONITORING WELL POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage  (S) for Satisfactory Discrepancies identified below	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning cap and lock and in good condition  (S) for Satisfactory Discrepancies identified below	a. In good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified  (S) for Satisfactory Discrepancies identified below	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weep hole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Stable/immobile  (S) for Satisfactory Discrepancies identified below	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment d. Other (please specify)  (S) for Satisfactory Discrepancies identified below
	↑ or ↓					
BRGWC-52I	↓BCD	S	S	S	S	pump installed
PZ-50D	↓BCD	S	S	S	S	no pump, inadequate recharge to perform low flow
PZ-51S	↓BCD	S	S	S	S	no pump
PZ-51I	↓BCD	S	S	S	S	no pump
PZ-51D	↓BCD	S	S	S	S	no pump
PZ-1S		S	S	S	S	--
PZ -1I		S	S	S	S	--
PZ-1D		S	S	S	S	--
PZ -3S		S	S	S	S	--
PZ -3I		S	S	S	S	--
PZ- 3D		S	S	S	S	--
PZ- 4S		S	S	S	S	--
PZ - 4I		S	S	S	S	--
PZ-7S		S	S	S	S	--
PZ- 8S		S	S	S	S	--
PZ-9S		S	S	S	S	--
PZ-10S		S	S	S	S	--
PZ-11S		S	S	S	S	--
PZ-12D		S	S	S	S	--
PZ-13S		S	S	S	S	--
PZ-14S		S	S	S	S	--
PZ -14I		S	S	S	S	--

**WELL INSPECTION FORM**  
**PLANT Branch**

WELL-ID	MONITORING WELL POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning cap and lock and in good condition  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. In good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weep hole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Stable/immobile  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment d. Other (please specify)  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>
	↑ or ↓					
PZ-15S		S	S	S	S	--
PZ -15I		S	S	S	S	--
PZ-16S		S	S	S	S	--
PZ -16I		S	S	S	S	--
PZ -17I		S	S	S	S	--
PZ-18S		S	S	S	S	--
PZ -18I		S	S	S	S	--
PZ-19S		S	S	S	S	--
PZ -19I		S	S	S	S	--
PZ-20S		S	S	S	S	--
PZ -20I		S	S	S	S	--
PZ-21S		S	S	S	S	--
PZ -21I		S	S	S	S	--
PZ-22S		S	S	S	S	--
BRGWC-24S		S	S	S	S	--
PZ-26I		S	S	S	S	--
PZ-28I		S	S	S	S	--
PZ-31S		S	S	S	S	--
PZ-23I		S	S	S	S	--
PZ-40S		S	S	S	S	--
PZ-41S		S	S	S	S	--
PZ-42S		S	S	S	S	--
PZ-43		S	S	S	S	--

**WELL INSPECTION FORM**  
**PLANT Branch**

WELL-ID	MONITORING WELL POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning cap and lock and in good condition  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. In good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weep hole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Stable/immobile  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment d. Other (please specify)  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>
	↑ or ↓					
PZ-44		S	S	S	S	--
PZ-46		S	S	S	S	--
PZ-48		S	S	S	S	--
PZ-49		S	S	S	S	--
PZ-53D		S	S	S	S	--
PZ-54		S	S	S	S	--
IW-C-1		S	S	S	S	--
IW-B-1		S	S	S	S	S
IW-D-1		S	S	S	S	--
IW-E-1		S	S	S	S	--
IW-B-2		Overgrown	S	S	S	S
IW-C-2		S	S	S	S	--
IW-D-2		S	S	S	S	--

**WELL INSPECTION FORM**  
**PLANT Branch**

WELL-ID	MONITORING WELL POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Visible and accessible b. Properly identified with correct ID c. Not in a high traffic area that requires traffic protection d. No standing water nearby, adequate surrounding drainage  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Free from damage, degradation, or deterioration b. Functioning weep hole c. Annular space free of debris and water, and has enough pea gravel d. Functioning cap and lock and in good condition  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. In good condition b. Sloped away from the well c. In contact with protective casing d. Stable and in contact with ground surface e. Free of debris f. Survey pin clearly identified  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Cap prevents entry of foreign material b. Free of kinks or bends or any obstruction from foreign objects c. Weephole present and cap not too tight to allow equilibrium for air pressure d. Survey point clearly marked on the inner casing e. Stable/immobile  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>	a. Well recharges adequately when purged b. If dedicated sampling equipment installed, it is in good condition and specified in the approved groundwater plan for the facility c. Does not require redevelopment d. Other (please specify)  <b>(S) for Satisfactory</b> <b>Discrepancies identified below</b>
	↑ or ↓					
PB-1S		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-2D		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-4S		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-4D		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-7S		Labeled with Permanent Marker Only / Overgrown	No Protective Casing	No Pad	S	--
PB-8D		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-8S		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-10D		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-10S		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-13D		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--
PB-13S		Labeled with Permanent Marker Only	No Protective Casing	No Pad	S	--

**NOTES:**

1. Provide pictures of any deficiencies.
2. Notify SCS /GPC of any noted deficiencies.
3. Provide additional comments as necessary to address any deficiencies.

**Issue resolved**

Requires immediate attention

**APPENDIX A**

# DATA VALIDATION SUMMARIES

**Appendix A**  
**Quality Control Review of Analytical Data submitted by**  
**Pace Analytical**  
**Plant Branch CCR Ash Pond BCD**

This narrative presents results of the quality control (QC) data review performed on analytical data submitted by Pace Analytical Services, LLC for groundwater samples collected at the Plant Branch CCR Ash Pond AP-BCD between September 21, 2021 and September 28, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1. In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and IV. Test methods included Inductively Coupled Plasma - Mass Spectrometry (ICP-MS) (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Inductively Coupled Plasma (ICP) (6010D), Determination of Inorganic Anions By Ion Chromatography (USEPA Method 300.0), Total Dissolved Solids (TDS) (Standard Methods 2540C), Radium-226 (USEPA Method 9315) and Radium-228 (USEPA Method 9320). Additional analysis were conducted in select samples, including Alkalinity (Standard Methods SM2320B), and Total Nitrogen as Nitrate and Nitrite (Method 353.2).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program (CLP) Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0), US EPA Region IV Data Validation Standard Operating Procedures for CLP Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2.0), the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017), and US Department of Energy, Evaluation of Radiochemical Data Usability (April 1997). The review included an assessment of the results for completeness, precision (laboratory and field duplicates, matrix spike/matrix spike duplicates), accuracy (laboratory control samples and matrix spike samples), and blank contamination (including field and laboratory blanks). Additionally, sample procedures, holding times and chains-of-custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytic methodology, method-specific criteria or professional judgment was used.

## **DATA QUALITY OBJECTIVES**

<b>Laboratory Precision:</b>	Laboratory goals for precision were met.
<b>Field Precision:</b>	Field goals for precision were met.
<b>Accuracy:</b>	Laboratory goals for accuracy were met except for mercury results in SDG 92563761 as described in the qualifications sections below.
<b>Sensitivity:</b>	Project goals for detection limits were met. Certain samples were diluted due to the concentration of the target analytes. Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

<b>Holding Times:</b>	All holding time requirements were met in accordance with specific analytical methods.
<b>Additional Comments:</b>	Detections were found in certain blank results, as described in the qualification sections below.
<b>Completeness:</b>	There were no rejected analytical results for this event, resulting in a completion of 100%.

## QUALIFICATIONS

In general, chemical results for the samples collected at the Site were qualified on the basis of low precision or accuracy, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory.

- J** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- U** The analyte was not detected above the method detection limit.

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. Although these qualifications were applied to some data from samples collected at the site and reported in SDGs 92562855, 92562860, 92563208, and 92563761 qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- The mercury result in sample PZ-51I was qualified as estimated non-detect value (JJ) since the associated matrix spike and/or matrix spike duplicate (MS/MSD) recovery was below the QC criteria and the analyte was not detected in the associated parent sample.
- Certain mercury results were qualified as non-detect (U) as the analyte was detected at a similar level in an associated blank sample. As shown in Table 2, when the original sample result was below the reporting limit (RL), the results were qualified as non-detect (U) and the results were raised to the RL.
- The radium-228 result in sample BRGWC-52I was qualified as non-detect (U) as the analyte was detected at a similar level in an associated blank sample. As shown in Table 2, the results were qualified as non-detect (U).
- The total Radium result in sample BRGWC-52I was qualified as estimated biased high (J+) as one of the corresponding radium isotopes was qualified U.

Golder reviewed the data from samples collected at the Plant Branch CCR Ash Ponds between September 21, 2021 and September 28, 2021 in accordance with the analytical methods, the laboratory specific QC criteria, and the guidelines. As described above, 100% of the results were acceptable for project use. The data are considered usable for meeting project objectives and the results are considered valid.



## REFERENCE

Paar J.G. and Porterfield D.R., April 1997, US Department of Energy, *Evaluation of Radiochemical Data Usability*.

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data By Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy*, Revision 2.0.

USEPA, January 2017, National, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Revision 0.0.

**TABLE 1**  
**Sample Summary Table - Pond BCD**  
**SCS Plant Branch**

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses											
						Field pH	Total Metals (EPA 6020B)	Calcium (EPA 6010D)	Mercury (SW7470A)	Anions (EPA 300.0)	TDS (SM2540C-2011)	Alkalinity (2320B)	Nitrogen, NO <sub>2</sub> + NO <sub>3</sub> (353.2)	Nitrogen 353.2	Radium-226 (EPA 9315)	Radium-228 (EPA 9320)	
92562855	BRGWA-12S	9/21/2021	92562855001	GW	-	X	X	X	X	X	X						
92562855	BRGWA-12I	9/21/2021	92562855002	GW	-	X	X	X	X	X	X						
92562855	BRGWA-23S	9/22/2021	92562855003	GW	-	X	X	X	X	X	X						
92563226	BRGWC-45	9/23/2021	92563226001	GW	-	X	X	X	X	X	X						
92563226	BRGWC-47	9/23/2021	92563226002	GW	-	X	X	X	X	X	X						
92563226	BRGWC-50	9/27/2021	92563226003	GW	-	X	X	X	X	X	X	X	X				
92563226	DUP-2	9/27/2021	92563226004	GW	FD (BRGWC-50)	X	X	X	X	X	X	X	X				
92563226	BRGWC-25I	9/28/2021	92563226005	GW	-	X	X	X	X	X	X						
92563226	BRGWC-27I	9/28/2021	92563226006	GW	-	X	X	X	X	X	X						
92563226	BRGWC-29I	9/28/2021	92563226007	GW	-	X	X	X	X	X	X						
92563226	BRGWC-30I	9/28/2021	92563226008	GW	-	X	X	X	X	X	X						
92563226	BRGWC-32S	9/28/2021	92563226009	GW	-	X	X	X	X	X	X						
92563226	EB-2	9/28/2021	92563226010	WQ	EB (BRGWC-27I)	X	X	X	X	X	X						
92563226	FB-2	9/28/2021	92563226011	WQ	FB (BRGWC-29I)	X	X	X	X	X	X						
92563226	DUP-3	9/28/2021	92563226012	GW	FD (BRGWC-30I)	X	X	X	X	X	X						
92563226	BRGWC-52I	9/28/2021	92563226013	GW	-	X	X	X	X	X	X	X	X				
92563226	FB-3	9/28/2021	92563226014	WQ	FB (BRGWC-52I)	X	X	X	X	X	X	X	X				
92563226	EB-3	9/28/2021	92563226015	WQ	EB (BRGWC-52I)	X	X	X	X	X	X	X	X				
92563761	PZ-51S	9/27/2021	92563761001	GW	-	X	X	X	X	X	X			X			
92563761	PZ-51I	9/27/2021	92563761002	GW	-	X	X	X	X	X	X			X			
92563761	PZ-61I	9/27/2021	92563761003	GW	-	X	X	X	X	X	X			X			
92563761	PZ-51D	9/28/2021	92563761004	GW	-	X	X	X	X	X	X			X			
92563761	PZ-57I	9/28/2021	92563761005	GW	-	X	X	X	X	X	X			X			
92563761	PZ-58I	9/28/2021	92563761006	GW	-	X	X	X	X	X	X			X			
92563761	PZ-44	9/28/2021	92563761007	GW	-	X	X	X	X	X	X			X			
92563761	PZ-50D	9/28/2021	92563761008	GW	-	X	X	X	X	X	X			X			
92563761	PZ-60I	9/28/2021	92563761009	GW	-	X	X	X	X	X	X			X			
92562860	BRGWA-5S	9/21/2021	92562860001	GW	-	X	X	X	X	X	X						
92562860	BRGWA-5I	9/21/2021	92562860002	GW	-	X	X	X	X	X	X						
92562860	BRGWA-2S	9/22/2021	92562860003	GW	-	X	X	X	X	X	X						
92562860	BRGWA-2I	9/22/2021	92562860004	GW	-	X	X	X	X	X	X						
92562860	BRGWA-6S	9/22/2021	92562860005	GW	-	X	X	X	X	X	X						
92562847	BRGWA-12S	9/21/2021	92562847001	GW	-											X	X
92562847	BRGWA-12I	9/21/2021	92562847002	GW	-											X	X
92562847	BRGWA-23S	9/22/2021	92562847003	GW	-											X	X
92563208	BRGWC-45	9/23/2021	92563208001	GW	-											X	X
92563208	BRGWC-47	9/23/2021	92563208002	GW	-											X	X
92563208	BRGWC-50	9/27/2021	92563208003	GW	-											X	X
92563208	DUP-2	9/27/2021	92563208004	GW	FD (BRGWC-50)											X	X
92563208	BRGWC-25I	9/28/2021	92563208005	GW	-											X	X
92563208	BRGWC-27I	9/28/2021	92563208006	GW	-											X	X
92563208	BRGWC-29I	9/28/2021	92563208007	GW	-											X	X
92563208	BRGWC-30I	9/28/2021	92563208008	GW	-											X	X
92563208	BRGWC-32S	9/28/2021	92563208009	GW	-											X	X
92563208	EB-2	9/28/2021	92563208010	WQ	EB (BRGWC-27I)											X	X
92563208	FB-2	9/28/2021	92563208011	WQ	FB (BRGWC-29I)											X	X
92563208	DUP-3	9/28/2021	92563208012	GW	FD (BRGWC-30I)											X	X
92563208	BRGWC-52I	9/28/2021	92563208013	GW	-											X	X
92563208	FB-3	9/28/2021	92563208014	WQ	FB (BRGWC-52I)											X	X
92563208	EB-3	9/28/2021	92563208015	WQ	EB (BRGWC-52I)											X	X
92563753	PZ-51S	9/27/2021	92563753001	GW	-											X	X
92563753	PZ-51I	9/27/2021	92563753002	GW	-											X	X
92563753	PZ-61I	9/27/2021	92563753003	GW	-											X	X
92563753	PZ-51D	9/28/2021	92563753004	GW	-											X	X
92563753	PZ-57I	9/28/2021	92563753005	GW	-											X	X
92563753	PZ-58I	9/28/2021	92563753006	GW	-											X	X
92563753	PZ-44	9/28/2021	92563753007	GW	-											X	X
92563753	PZ-50D	9/28/2021	92563753008	GW	-											X	X
92563753	PZ-60I	9/28/2021	92563753009	GW	-											X	X
92562849	BRGWA-5S	9/21/2021	92562849001	GW	-											X	X
92562849	BRGWA-5I	9/21/2021	92562849002	GW	-											X	X
92562849	BRGWA-2S	9/22/2021	92562849003	GW	-											X	X
92562849	BRGWA-2I	9/22/2021	92562849004	GW	-											X	X
92562849	BRGWA-6S	9/22/2021	92562849005	GW	-											X	X

**Abbreviations:**

- SDG- Sample Delivery Group
- QC - Quality Control
- GW - Groundwater
- WQ - Water Quality
- TDS - Total dissolved solids
- SW - Solid Waste
- EPA - Environmental Protection Agency
- FB - Field blank
- EB - Equipment Blank
- FD - Field duplicate
- SM - Standard Method

**TABLE 2**  
**Qualifier Summary Table**  
**SCS Plant Branch**

<i>SDG</i>	<i>Sample Name</i>	<i>Constituent</i>	<i>New Result</i>	<i>New RL or MDC</i>	<i>Qualifier</i>	<i>Reason</i>
92562855	BRGWA-12S	Mercury	0.0002	-	U	Method blank detection
92562855	BRGWA-12I	Mercury	0.0002	-	U	Method blank detection
92562855	BRGWA-23S	Mercury	0.0002	-	U	Method blank detection
92563761	PZ-51I	Mercury	--	--	UJ	MS/MSD recovered below acceptance criteria and parent sample is ND
92563208	BRGWC-52I	Radium-228	-	2.75	U	Method, Equipment, and Field blank detection
92563208	BRGWC-52I	Total Radium	-	-	J+	Method, Equipment, and Field blank detection
92562860	BRGWA-5S	Mercury	0.0002	--	U	Method blank detection
92562860	BRGWA-5I	Mercury	0.0002	--	U	Method blank detection
92562860	BRGWA-2S	Mercury	0.0002	--	U	Method blank detection
92562860	BRGWA-2I	Mercury	0.0002	--	U	Method blank detection
92562860	BRGWA-6S	Mercury	0.0002	--	U	Method blank detection

**Abbreviations:**

SDG : Sample delivery group

RL : Reporting limit

MDC : Minimum detectable concentration

MS/MSD: Matrix spike/Matrix spike duplicate

**Qualifiers:**

U : Non-detect result

UJ : Non-detect estimated result

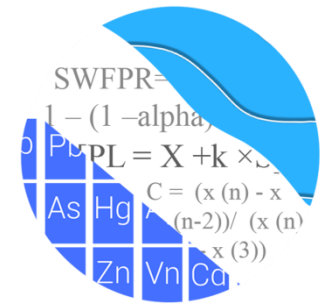
J+: Estimated value, bias high

**APPENDIX B**

# STATISTICAL ANALYSES

## September 2021

## GROUNDWATER STATS CONSULTING



February 28, 2022

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 – September 2021 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2021 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, BRGWC-52I
- **Delineation wells:** PZ-51D, PZ-51S, PZ-57I, PZ-58I, and PZ-60I
- **Assessment wells:** PZ-50D, PZ-51I, and PZ-61I

Data from delineation and assessment wells are evaluated using confidence intervals when a minimum of 4 samples are available.

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.

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). Delineation and 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 nondetects, 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% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the most reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect 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% nondetects.

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 that were not included 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 for all non-detects which provides 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 handful 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 – September 2021

### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2021 (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 September 2021 sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

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-45 and BRGWC-50
- 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-29I, BRGWC-30I, BRGWC-32S, 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 (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. While several statistically significant decreasing trends were noted in both upgradient and downgradient wells, a statistically significant increasing trend was identified for calcium in well BRGWC-30I. A summary of the trend test results follows this letter.

## **Evaluation of Appendix IV Parameters – September 2021**

For Appendix IV parameters, confidence intervals for each downgradient well/constituent were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that have 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 2021 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 Georgia EPD Rule 391-3-4-.10(6)(a). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the September 2021 sample event according to the state rules (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 State and Federal well/constituent pairs:

- Cadmium: BRGWC-50
- Cobalt: BRGWC-50 and PZ-51I

### 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. No statistically significant increasing or decreasing trends were identified.

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,



Kristina L. Rayner  
Groundwater Statistician



Andrew Collins  
Project Manager

# 100% Non-Detects

Analysis Run 12/2/2021 10:25 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

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Antimony (mg/L)

BRGWC-25I, BRGWC-27I, BRGWC-30I, PZ-57I, PZ-58I, PZ-60I, PZ-61I

Arsenic (mg/L)

PZ-51I, PZ-51S, PZ-57I, PZ-58I, PZ-60I

Beryllium (mg/L)

BRGWC-25I, BRGWC-30I, BRGWC-32S, BRGWC-52I, PZ-51D, PZ-51S

Cadmium (mg/L)

BRGWC-25I, BRGWC-29I, BRGWC-52I, PZ-50D, PZ-51D, PZ-51S

Chromium (mg/L)

PZ-50D, PZ-51D, PZ-57I, PZ-58I, PZ-60I

Lead (mg/L)

BRGWC-32S, PZ-51S, PZ-57I, PZ-58I, PZ-60I

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

Molybdenum (mg/L)

BRGWC-27I, BRGWC-29I, BRGWC-32S, BRGWC-47, PZ-51I, PZ-51S, PZ-57I, PZ-58I, PZ-60I, PZ-61I

Selenium (mg/L)

BRGWC-52I, PZ-50D, PZ-51D, PZ-51I, PZ-51S, PZ-57I

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

# Interwell Prediction Limits - Significant Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/5/2021, 6:40 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-25I	0.068	n/a	9/28/2021	1.1	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	9/28/2021	0.95	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	9/28/2021	0.9	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	9/28/2021	1.7	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	9/28/2021	0.91	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	9/23/2021	0.47	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	9/27/2021	0.32	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	9/28/2021	1.4	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	9/28/2021	38.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	9/28/2021	50.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	9/28/2021	59.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	9/28/2021	212	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	9/28/2021	33.9	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	9/23/2021	32	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	9/23/2021	336	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	9/27/2021	196	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	9/28/2021	39.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	9/23/2021	29.3	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	9/27/2021	16.2	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	9/27/2021	0.43	Yes	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.057	5.592	9/28/2021	4.23	Yes	130	6.325	0.3803	0	None	No	0.0004179	Param Inter 1 of 2	
pH, Field (S.U.)	BRGWC-50	7.057	5.592	9/27/2021	5.05	Yes	130	6.325	0.3803	0	None	No	0.0004179	Param Inter 1 of 2	
Sulfate (mg/L)	BRGWC-25I	89	n/a	9/28/2021	112	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	9/28/2021	137	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	9/28/2021	250	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	9/28/2021	612	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	9/28/2021	189	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	9/23/2021	97.5	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	9/23/2021	1240	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	9/27/2021	1180	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	9/28/2021	132	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	9/28/2021	457	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	9/28/2021	1050	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	9/28/2021	375	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	9/23/2021	1770	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	9/27/2021	1800	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	299	n/a	9/28/2021	336	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/5/2021, 6:40 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-25I	0.068	n/a	9/28/2021	1.1	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	9/28/2021	0.95	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	9/28/2021	0.9	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	9/28/2021	1.7	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	9/28/2021	0.91	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-45	0.068	n/a	9/23/2021	0.029J	No	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	9/23/2021	0.47	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	9/27/2021	0.32	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	9/28/2021	1.4	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	9/28/2021	38.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	9/28/2021	50.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	9/28/2021	59.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	9/28/2021	212	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	9/28/2021	33.9	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	9/23/2021	32	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	9/23/2021	336	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	9/27/2021	196	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	9/28/2021	39.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	9/28/2021	4.2	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-27I	5.8	n/a	9/28/2021	3.7	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	9/28/2021	5.4	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-30I	5.8	n/a	9/28/2021	3.4	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-32S	5.8	n/a	9/28/2021	3.6	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	9/23/2021	29.3	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-47	5.8	n/a	9/23/2021	4.3	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	9/27/2021	16.2	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	9/28/2021	5.5	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-25I	0.42	n/a	9/28/2021	0.15	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-27I	0.42	n/a	9/28/2021	0.16	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-29I	0.42	n/a	9/28/2021	0.081J	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-30I	0.42	n/a	9/28/2021	0.11	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-32S	0.42	n/a	9/28/2021	0.1ND	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-45	0.42	n/a	9/23/2021	0.06J	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-47	0.42	n/a	9/23/2021	0.1ND	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	9/27/2021	0.43	Yes	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-52I	0.42	n/a	9/28/2021	0.12	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-25I	7.057	5.592	9/28/2021	5.97	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-27I	7.057	5.592	9/28/2021	5.82	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.057	5.592	9/28/2021	4.23	Yes	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-30I	7.057	5.592	9/28/2021	6.33	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-32S	7.057	5.592	9/28/2021	5.82	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-45	7.057	5.592	9/23/2021	5.95	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-47	7.057	5.592	9/23/2021	5.74	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.057	5.592	9/27/2021	5.05	Yes	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-52I	7.057	5.592	9/28/2021	6.81	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	9/28/2021	112	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	9/28/2021	137	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	9/28/2021	250	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	9/28/2021	612	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	9/28/2021	189	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2



# Interwell Prediction Limits - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/5/2021, 6:40 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.NBg	Mean	Std.Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate (mg/L)	BRGWC-45	89	n/a	9/23/2021	97.5	Yes	114	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	9/23/2021	1240	Yes	114	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	9/27/2021	1180	Yes	114	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	9/28/2021	132	Yes	114	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-25I	299	n/a	9/28/2021	270	No	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	299	n/a	9/28/2021	262	No	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	9/28/2021	457	Yes	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	9/28/2021	1050	Yes	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	9/28/2021	375	Yes	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-45	299	n/a	9/23/2021	277	No	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	9/23/2021	1770	Yes	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	9/27/2021	1800	Yes	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	299	n/a	9/28/2021	336	Yes	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2

# Appendix III Trend Test Summary - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/9/2021, 6:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-27I	-0.1605	-64	-53	Yes	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-29I	-0.1613	-50	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.177	51	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-25I	-6.149	-75	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-27I	-5.366	-55	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-30I	15.72	68	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-12I (bg)	-0.2227	-65	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-50	-2.006	-51	-48	Yes	14	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-23S (bg)	-0.05938	-60	-58	Yes	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1251	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12I (bg)	-0.2564	-84	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12S (bg)	-0.1826	-68	-53	Yes	15	13.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-25I	-41.43	-62	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-27I	-27.24	-70	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-29I	-51.5	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-32S	-41.84	-55	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-32S	-57.27	-64	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-50	-157.8	-51	-48	Yes	14	0	n/a	n/a	0.01	NP

# Appendix III Trend Test Summary - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/9/2021, 6:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-12I (bg)	-0.0003611	-12	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-12S (bg)	0	2	48	No	14	78.57	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-23S (bg)	0.001292	10	48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2I (bg)	0.002384	20	48	No	14	21.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	6	48	No	14	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	1	48	No	14	57.14	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	14	48	No	14	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-25I	-0.1154	-38	-48	No	14	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-27I</b>	<b>-0.1605</b>	<b>-64</b>	<b>-53</b>	<b>Yes</b>	<b>15</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>-0.1613</b>	<b>-50</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-30I	-0.004574	-15	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-32S	-0.01337	-14	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-47	0.02383	21	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-50	0	8	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-52I	0	9	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12I (bg)	0.199	10	53	No	15	6.667	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12S (bg)	0.2536	26	53	No	15	6.667	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-23S (bg)	-1.151	-37	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.8266	46	48	No	14	7.143	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0	1	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	-0.07521	-6	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.4646	-20	-48	No	14	7.143	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-6S (bg)</b>	<b>0.177</b>	<b>51</b>	<b>48</b>	<b>Yes</b>	<b>14</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>-6.149</b>	<b>-75</b>	<b>-48</b>	<b>Yes</b>	<b>14</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>-5.366</b>	<b>-55</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-29I	-9.731	-47	-48	No	14	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-30I</b>	<b>15.72</b>	<b>68</b>	<b>48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-32S	-6.126	-43	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-45	-2.868	-44	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-47	5.19	21	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-50	-9.359	-25	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-52I	2.783	16	43	No	13	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2227</b>	<b>-65</b>	<b>-53</b>	<b>Yes</b>	<b>15</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	11	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-23S (bg)	-0.23	-42	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.06183	-31	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	-0.02852	-22	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2053	-44	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.06983	-25	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	0	-12	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-45	-7.683	-47	-53	No	15	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWC-50</b>	<b>-2.006</b>	<b>-51</b>	<b>-48</b>	<b>Yes</b>	<b>14</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)	-0.01393	-38	-58	No	16	25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-12S (bg)	0	49	58	No	16	68.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-23S (bg)	0	-27	-58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-19	-58	No	16	43.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	35	58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	44	58	No	16	68.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	-0.007283	-34	-58	No	16	31.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0.003585	41	58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-50	-0.1283	-29	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12I (bg)	-0.0587	-42	-68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12S (bg)	-0.01934	-29	-63	No	17	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.05938</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>

# Appendix III Trend Test Summary - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/9/2021, 6:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>pH, Field (S.U.)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.1251</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>
pH, Field (S.U.)	BRGWA-2S (bg)	-0.02883	-43	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02729	-28	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.0589	-55	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	-0.006594	-6	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-29I	0.003679	3	58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-50	-0.06992	-32	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2564</b>	<b>-84</b>	<b>-53</b>	<b>Yes</b>	<b>15</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>-0.1826</b>	<b>-68</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>13.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWA-23S (bg)	-2.575	-19	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.2487	-28	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	3	48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.3219	-27	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.08437	-40	-48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.01226	-14	-48	No	14	21.43	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-25I</b>	<b>-41.43</b>	<b>-62</b>	<b>-48</b>	<b>Yes</b>	<b>14</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>-27.24</b>	<b>-70</b>	<b>-48</b>	<b>Yes</b>	<b>14</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>-51.5</b>	<b>-59</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-30I	24.89	35	48	No	14	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-32S</b>	<b>-41.84</b>	<b>-55</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-45	-3.548	-38	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-47	-66.18	-33	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-50	-115.1	-31	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-52I	-14.1	-30	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12I (bg)	-5.087	-40	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12S (bg)	-6.547	-29	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-23S (bg)	-11.77	-35	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-4.927	-15	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.8314	7	48	No	14	7.143	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-7.713	-21	-48	No	14	7.143	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.968	-46	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.774	-10	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-29I	-74.57	-44	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-30I	62.57	45	48	No	14	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>-57.27</b>	<b>-64</b>	<b>-48</b>	<b>Yes</b>	<b>14</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	-107.8	-38	-48	No	14	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>-157.8</b>	<b>-51</b>	<b>-48</b>	<b>Yes</b>	<b>14</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	0.9481	3	48	No	14	0	n/a	n/a	0.01	NP

# Upper Tolerance Limits Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/23/2021, 11:50 AM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.017	120	n/a	n/a	81.67	n/a	n/a	0.002122	NP Inter(NDs)
Arsenic (mg/L)	0.005	120	n/a	n/a	75.83	n/a	n/a	0.002122	NP Inter(NDs)
Barium (mg/L)	0.13	120	n/a	n/a	0	n/a	n/a	0.002122	NP Inter(normality)
Beryllium (mg/L)	0.0005	120	n/a	n/a	100	n/a	n/a	0.002122	NP Inter(NDs)
Cadmium (mg/L)	0.0005	122	n/a	n/a	98.36	n/a	n/a	0.001915	NP Inter(NDs)
Chromium (mg/L)	0.016	120	n/a	n/a	19.17	n/a	n/a	0.002122	NP Inter(normality)
Cobalt (mg/L)	0.0135	120	n/a	n/a	56.67	n/a	n/a	0.002122	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	1.646	120	0.796	0.448	0	None	No	0.05	Inter
Fluoride (mg/L)	0.42	128	n/a	n/a	50.78	n/a	n/a	0.001408	NP Inter(normality)
Lead (mg/L)	0.0013	120	n/a	n/a	85	n/a	n/a	0.002122	NP Inter(NDs)
Lithium (mg/L)	0.089	120	n/a	n/a	39.17	n/a	n/a	0.002122	NP Inter(normality)
Mercury (mg/L)	0.00021	104	n/a	n/a	85.58	n/a	n/a	0.004822	NP Inter(NDs)
Molybdenum (mg/L)	0.01	117	n/a	n/a	78.63	n/a	n/a	0.002475	NP Inter(NDs)
Selenium (mg/L)	0.006	120	n/a	n/a	90.83	n/a	n/a	0.002122	NP Inter(NDs)
Thallium (mg/L)	0.001	120	n/a	n/a	100	n/a	n/a	0.002122	NP Inter(NDs)

<b>PLANT BRANCH PONDS B,C,D GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.017	0.017
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	0.0005	0.005
Chromium, Total (mg/L)	0.1	0.016	0.1
Cobalt, Total (mg/L)	n/a	0.014	0.014
Combined Radium, Total (pCi/L)	5	1.65	5
Fluoride, Total (mg/L)	4	0.42	4
Lead, Total (mg/L)	n/a	0.0013	0.0013
Lithium, Total (mg/L)	n/a	0.089	0.089
Mercury, Total (mg/L)	0.002	0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.006	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

*\*Highlighted cells indicate Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

# Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 12/2/2021, 10:32 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cadmium (mg/L)	BRGWC-50	0.04274	0.0135	0.005	Yes	15	0.03023	0.02529	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-50	1.5	1.3	0.014	Yes	15	1.387	0.06399	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	PZ-511	0.041	0.017	0.014	Yes	8	0.02213	0.007772	0	None	No	0.004	NP (normality)

# Confidence Intervals - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 12/2/2021, 10:32 AM

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	0.017	No	15	0.002847	0.0005939	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.017	No	15	0.002893	0.0004131	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-45	0.0031	0.0012	0.017	No	16	0.002378	0.0009265	56.25	None	No	0.01	NP (normality)
Antimony (mg/L)	BRGWC-47	0.003	0.00035	0.017	No	16	0.002834	0.0006625	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-50	0.003	0.00092	0.017	No	15	0.002523	0.000992	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-52I	0.003	0.00091	0.017	No	15	0.002546	0.0009451	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	PZ-51I	0.001766	0.0007453	0.017	No	6	0.002115	0.001011	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Antimony (mg/L)	PZ-51S	0.003	0.00043	0.017	No	6	0.002372	0.001065	66.67	None	No	0.0155	NP (normality)
Arsenic (mg/L)	BRGWC-25I	0.005	0.00072	0.01	No	15	0.00385	0.001976	73.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-27I	0.005	0.0011	0.01	No	15	0.00394	0.001825	73.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-29I	0.005	0.00065	0.01	No	15	0.00324	0.001997	53.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-30I	0.005	0.00056	0.01	No	15	0.004704	0.001146	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	15	0.004702	0.001154	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-45	0.005	0.00075	0.01	No	16	0.003756	0.001933	68.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-47	0.005	0.00089	0.01	No	16	0.002827	0.00182	37.5	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-50	0.005	0.0014	0.01	No	15	0.004173	0.001721	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-52I	0.005	0.0016	0.01	No	15	0.003478	0.001479	33.33	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-25I	0.03643	0.02682	2	No	15	0.03163	0.007089	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-27I	0.01702	0.01492	2	No	15	0.01597	0.001551	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-29I	0.0195	0.01696	2	No	15	0.01823	0.001873	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-30I	0.02719	0.02171	2	No	15	0.02445	0.004044	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04406	0.02797	2	No	15	0.03601	0.01187	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-45	0.09639	0.07723	2	No	16	0.08681	0.01473	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-47	0.04407	0.0343	2	No	16	0.03918	0.007509	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-50	0.02149	0.01851	2	No	15	0.02	0.002204	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-52I	0.02605	0.01635	2	No	15	0.0212	0.007153	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51I	0.01686	0.01281	2	No	6	0.01483	0.001472	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51S	0.03674	0.02593	2	No	6	0.03133	0.003933	0	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-27I	0.0005	0.0001	0.004	No	16	0.00023	0.000166	25	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-29I	0.001054	0.0007242	0.004	No	15	0.0008893	0.0002436	6.667	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-45	0.0005	0.000079	0.004	No	17	0.0004485	0.0001454	88.24	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-47	0.0005	0.000056	0.004	No	16	0.0004161	0.0001803	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-50	0.004915	0.002458	0.004	No	15	0.003687	0.001813	13.33	None	No	0.01	Param.
Beryllium (mg/L)	PZ-51I	0.0005	0.000064	0.004	No	6	0.0001508	0.0001716	16.67	None	No	0.0155	NP (normality)
Cadmium (mg/L)	BRGWC-27I	0.0005	0.00009	0.005	No	16	0.0004475	0.0001435	87.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-30I	0.0005	0.00008	0.005	No	16	0.0004738	0.000105	93.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-32S	0.0005	0.00011	0.005	No	16	0.0004244	0.0001627	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-45	0.0005	0.0002	0.005	No	17	0.0004146	0.0001599	76.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-47	0.0005	0.00015	0.005	No	16	0.0003175	0.0001687	43.75	None	No	0.01	NP (normality)
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>0.04274</b>	<b>0.0135</b>	<b>0.005</b>	<b>Yes</b>	<b>15</b>	<b>0.03023</b>	<b>0.02529</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-51I	0.01427	0.0009488	0.005	No	8	0.008004	0.0114	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	BRGWC-25I	0.005	0.0016	0.1	No	15	0.004505	0.001311	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-27I	0.005	0.003	0.1	No	15	0.0046	0.001121	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-29I	0.02	0.005	0.1	No	15	0.006	0.003873	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-30I	0.0051	0.005	0.1	No	15	0.005607	0.002322	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-32S	0.005	0.0012	0.1	No	15	0.002773	0.001684	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-45	0.005	0.0014	0.1	No	16	0.004246	0.00163	81.25	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-47	0.005	0.00092	0.1	No	16	0.004009	0.001789	75	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-50	0.005	0.00071	0.1	No	15	0.003383	0.002035	53.33	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-52I	0.005	0.0017	0.1	No	15	0.00478	0.0008521	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	PZ-51I	0.005	0.0008	0.1	No	6	0.00363	0.002123	66.67	None	No	0.0155	NP (normality)
Chromium (mg/L)	PZ-51S	0.005	0.00042	0.1	No	6	0.003508	0.002312	66.67	None	No	0.0155	NP (normality)
Cobalt (mg/L)	BRGWC-25I	0.006964	0.004102	0.014	No	15	0.005533	0.002112	6.667	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-27I	0.01096	0.00775	0.014	No	16	0.009356	0.00247	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-29I	0.01006	0.006469	0.014	No	15	0.008367	0.002766	6.667	None	sqrt(x)	0.01	Param.



# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 12/2/2021, 10:32 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	BRGWC-30I	0.0016	0.00078	0.014	No	16	0.001817	0.001608	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-32S	0.005	0.0025	0.014	No	16	0.004594	0.001143	87.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-45	0.015	0.0064	0.014	No	17	0.01331	0.01501	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-47	0.003786	0.0007947	0.014	No	16	0.002822	0.003337	12.5	None	x^(1/3)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>BRGWC-50</b>	<b>1.5</b>	<b>1.3</b>	<b>0.014</b>	<b>Yes</b>	<b>15</b>	<b>1.387</b>	<b>0.06399</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Cobalt (mg/L)	BRGWC-52I	0.005	0.0012	0.014	No	15	0.003566	0.001825	53.33	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>PZ-51I</b>	<b>0.041</b>	<b>0.017</b>	<b>0.014</b>	<b>Yes</b>	<b>8</b>	<b>0.02213</b>	<b>0.007772</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.004</b>	<b>NP (normality)</b>
Cobalt (mg/L)	PZ-51S	0.008222	0.00312	0.014	No	7	0.005671	0.002148	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-25I	1.518	0.5183	5	No	15	1.119	0.9983	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-27I	1.453	0.5539	5	No	15	1.058	0.8075	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-29I	1.643	1.194	5	No	15	1.418	0.3315	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-30I	1.133	0.6188	5	No	15	0.8757	0.3791	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.098	0.4761	5	No	15	0.7871	0.4588	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-45	0.8176	0.3742	5	No	16	0.5959	0.3407	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-47	1.444	0.8221	5	No	16	1.133	0.478	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-50	2.012	1.236	5	No	15	1.624	0.5732	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-52I	2.299	1.396	5	No	15	1.847	0.6669	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51I	11.7	0.771	5	No	6	2.999	4.287	0	None	No	0.0155	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-51S	10.86	-3.1e-8	5	No	6	3.51	6.673	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-25I	0.29	0.14	4	No	16	0.2131	0.143	6.25	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-27I	0.2684	0.1508	4	No	16	0.2096	0.0904	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-29I	0.227	0.09209	4	No	16	0.1818	0.1287	12.5	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-30I	0.3663	0.1278	4	No	16	0.2657	0.2246	6.25	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.11	0.09	4	No	16	0.1063	0.03914	62.5	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-45	0.12	0.067	4	No	17	0.1815	0.2444	52.94	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-47	0.34	0.076	4	No	17	0.2491	0.268	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-50	0.8598	0.3393	4	No	16	0.6356	0.469	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-52I	0.2422	0.1306	4	No	15	0.1864	0.08242	6.667	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51I	0.1	0.061	4	No	7	0.09443	0.01474	85.71	None	No	0.008	NP (NDs)
Fluoride (mg/L)	PZ-51S	0.1187	0.04559	4	No	6	0.08217	0.02663	0	None	No	0.01	Param.
Lead (mg/L)	BRGWC-25I	0.001	0.00011	0.0013	No	15	0.0009407	0.0002298	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-27I	0.001	0.000063	0.0013	No	15	0.0009375	0.0002419	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-29I	0.0005144	0.0002945	0.0013	No	14	0.0004221	0.0002025	7.143	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-30I	0.001	0.00011	0.0013	No	15	0.0009407	0.0002298	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-45	0.001	0.00026	0.0013	No	16	0.0008452	0.0003352	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-47	0.001	0.00012	0.0013	No	16	0.0008271	0.0003719	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-50	0.001	0.000085	0.0013	No	15	0.0005634	0.0004385	46.67	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-52I	0.001	0.000042	0.0013	No	15	0.0009361	0.0002474	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	PZ-51I	0.001	0.00017	0.0013	No	6	0.000755	0.0003843	66.67	None	No	0.0155	NP (normality)
Lithium (mg/L)	BRGWC-27I	0.0021	0.0012	0.089	No	15	0.00332	0.004748	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-29I	0.003686	0.003074	0.089	No	15	0.00338	0.0004523	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-30I	0.01628	0.01159	0.089	No	15	0.01393	0.003458	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-32S	0.0023	0.002	0.089	No	15	0.00386	0.004525	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-45	0.003584	0.002962	0.089	No	15	0.003273	0.000459	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-47	0.04398	0.04057	0.089	No	16	0.04228	0.002613	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-50	0.04437	0.03803	0.089	No	15	0.0412	0.004678	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-52I	0.00708	0.003138	0.089	No	15	0.005313	0.003385	6.667	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	PZ-51I	0.026	0.019	0.089	No	6	0.02067	0.002733	0	None	No	0.0155	NP (normality)
Lithium (mg/L)	PZ-51S	0.015	0.0012	0.089	No	6	0.0127	0.005634	83.33	None	No	0.0155	NP (NDs)
Mercury (mg/L)	BRGWC-25I	0.0002	0.000083	0.002	No	13	0.0001787	0.00005275	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-27I	0.0002	0.00005	0.002	No	13	0.0001767	0.0000569	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-29I	0.0002	0.00007	0.002	No	13	0.0001698	0.00005851	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-30I	0.0002	0.00007	0.002	No	13	0.0001686	0.00006029	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0002	0.00009	0.002	No	13	0.0001748	0.00004809	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	PZ-51I	0.0002	0.000099	0.002	No	6	0.0001832	0.00004123	83.33	None	No	0.0155	NP (NDs)

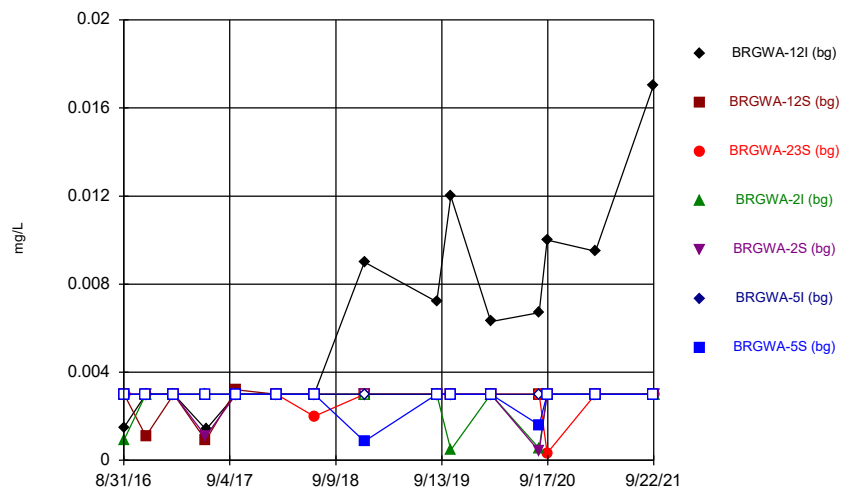
# Trend Tests - Confidence Interval Exceedances - All Results (No Significant)

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 12/2/2021, 10:20 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cadmium (mg/L)	BRGWA-12I (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12S (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-23S (bg)	0	1	53	No	15	86.67	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-6S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWC-50	-0.01101	-46	-53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12I (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12S (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-23S (bg)	-0.0007052	-26	-53	No	15	13.33	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	11	53	No	15	80	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004551	-45	-53	No	15	13.33	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.000186	-42	-43	No	13	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	16	53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	-9	-53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-50	0	10	53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-511	0	-1	-21	No	8	0	n/a	n/a	0.01	NP

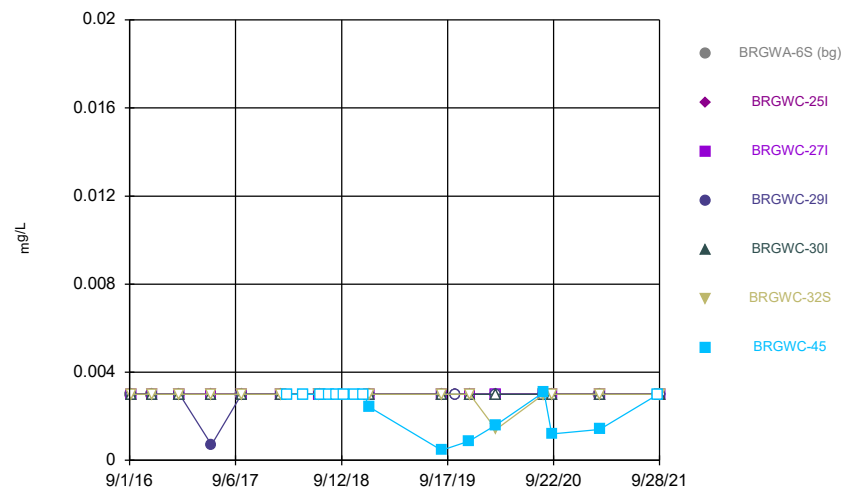
FIGURE A.

### Time Series



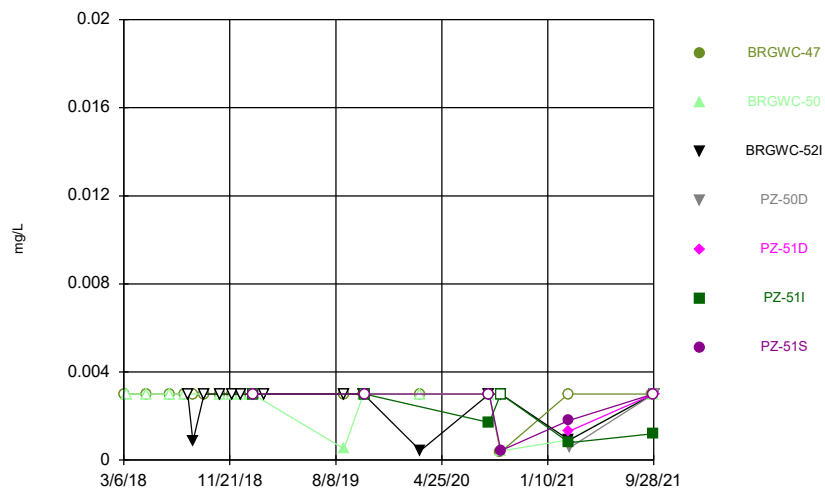
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



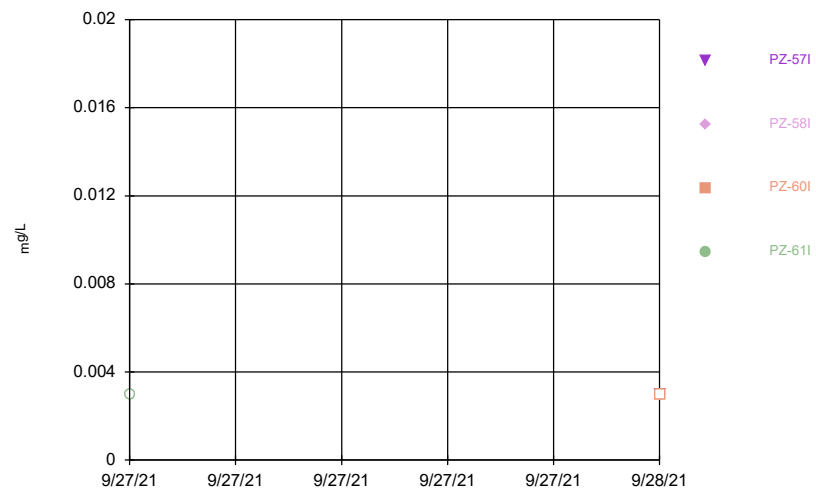
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



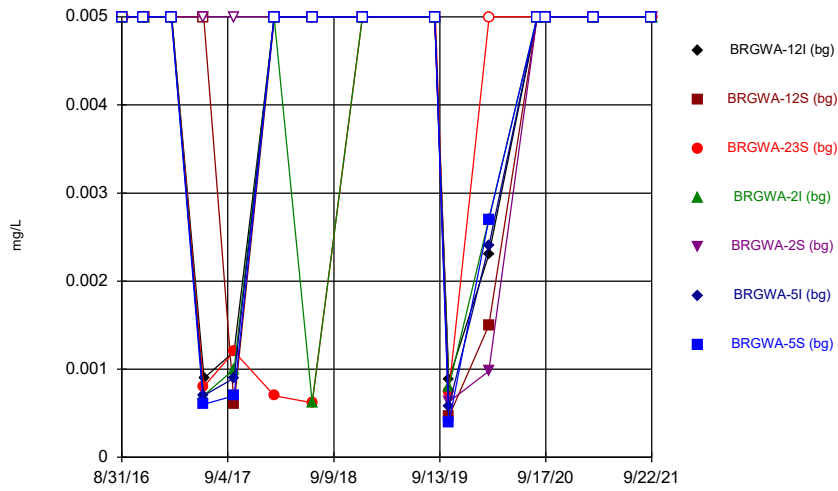
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



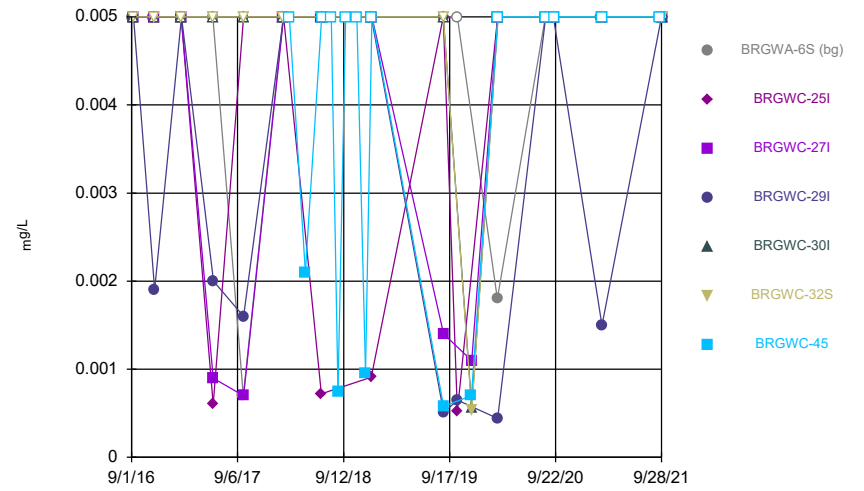
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



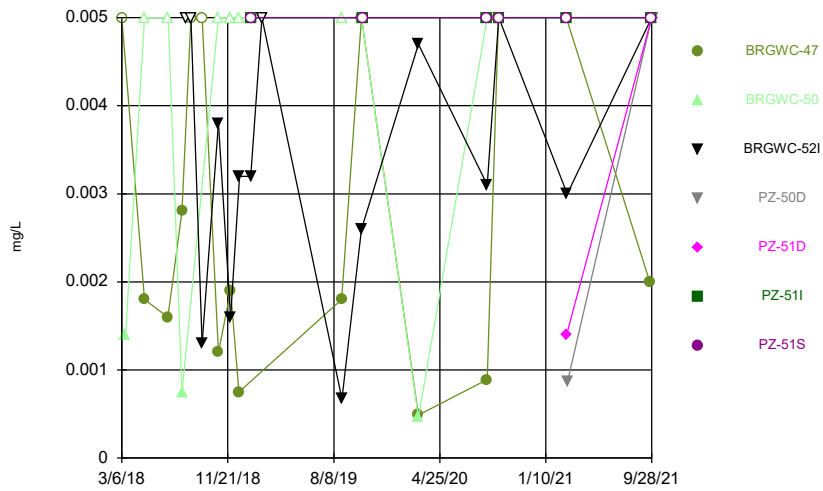
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



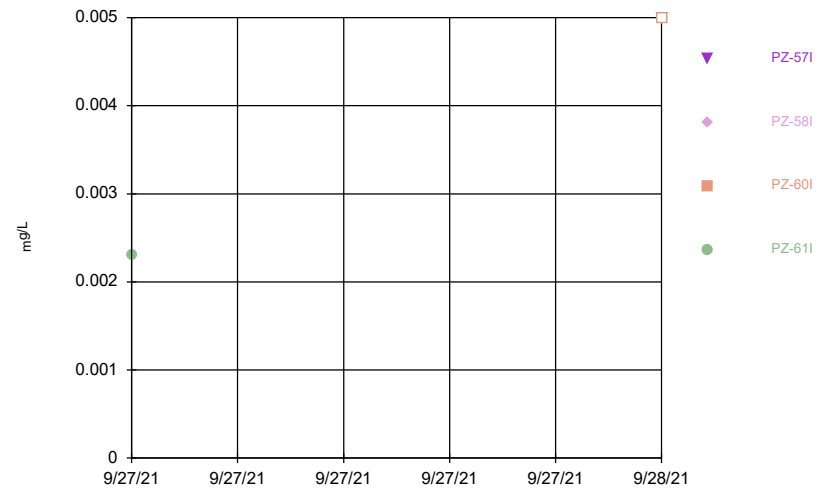
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Time Series



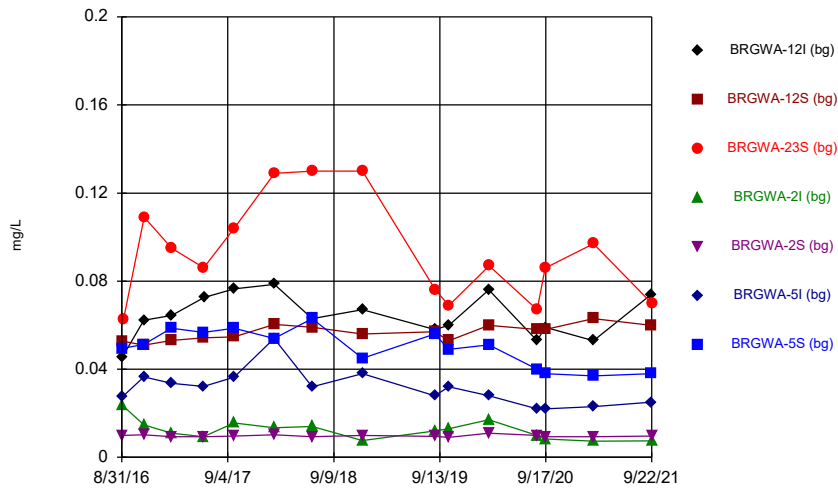
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Time Series



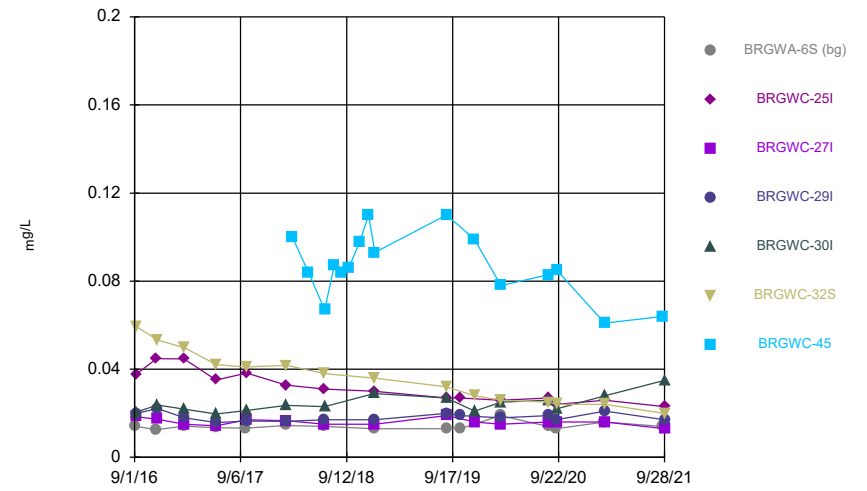
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



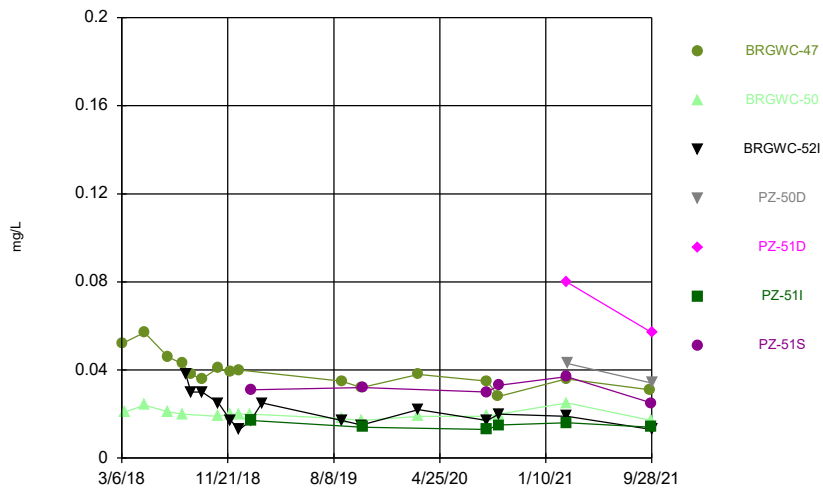
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Time Series



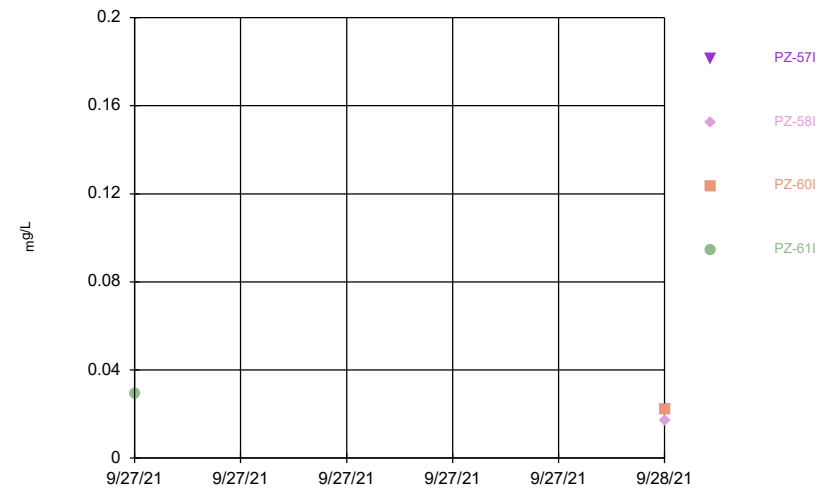
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



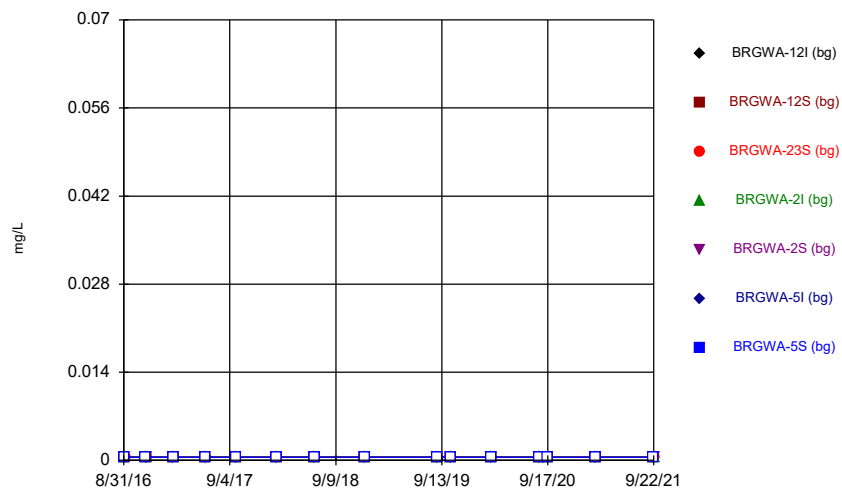
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



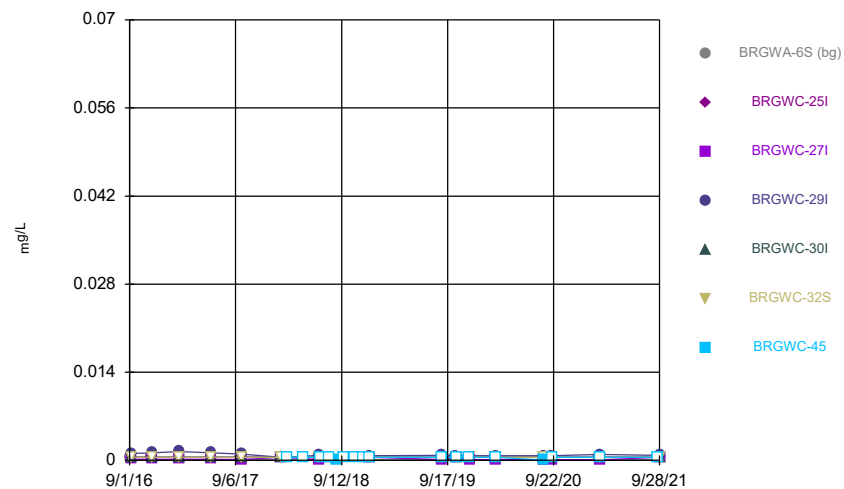
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### Time Series



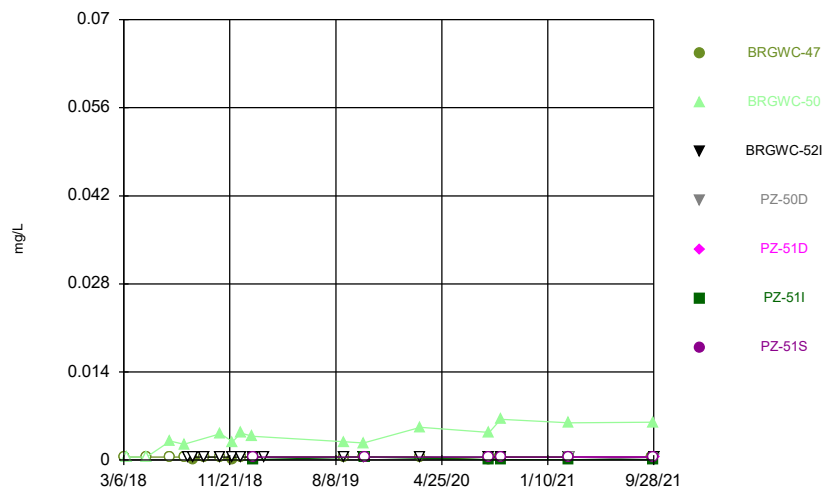
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



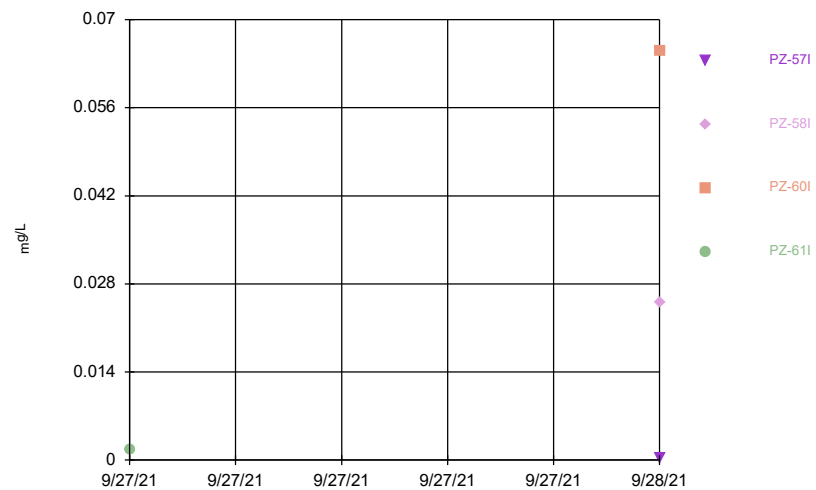
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### Time Series



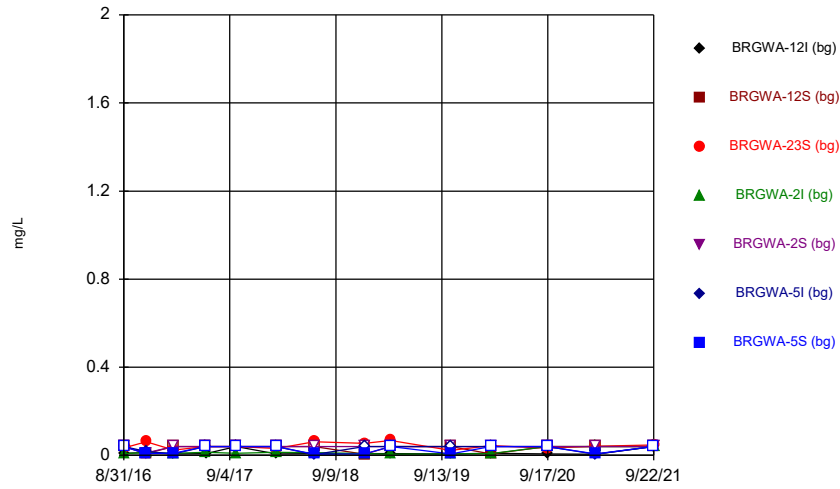
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### Time Series



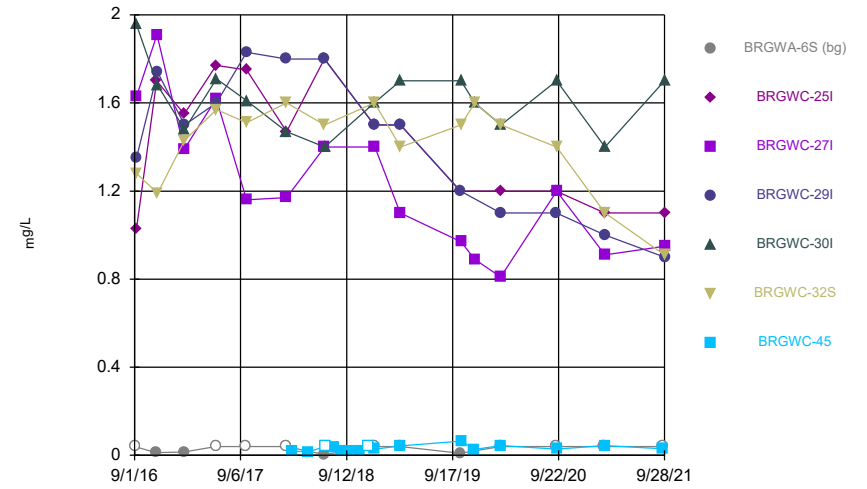
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Time Series



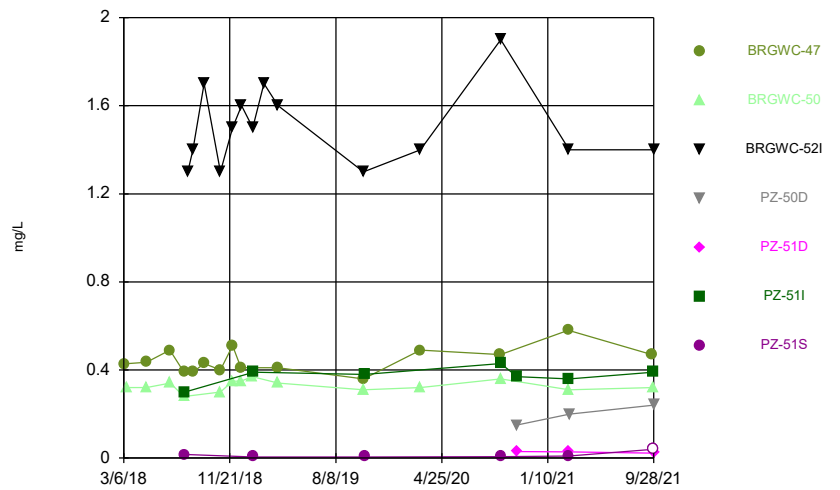
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Time Series



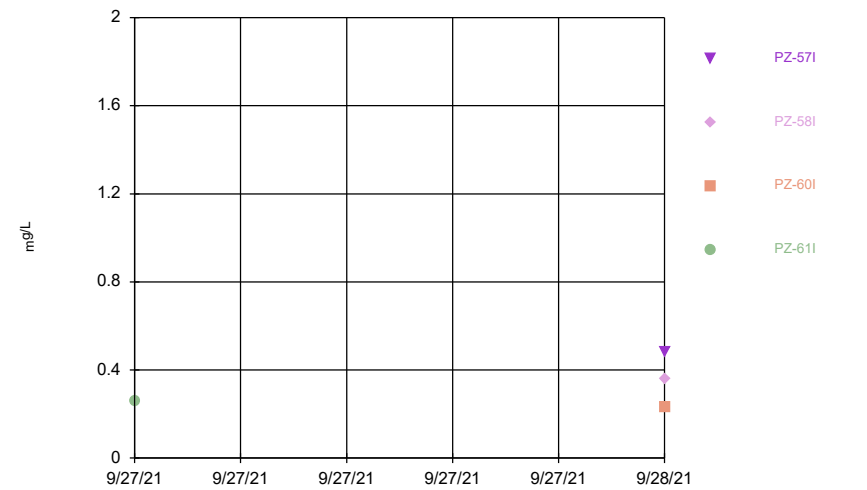
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Boron Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

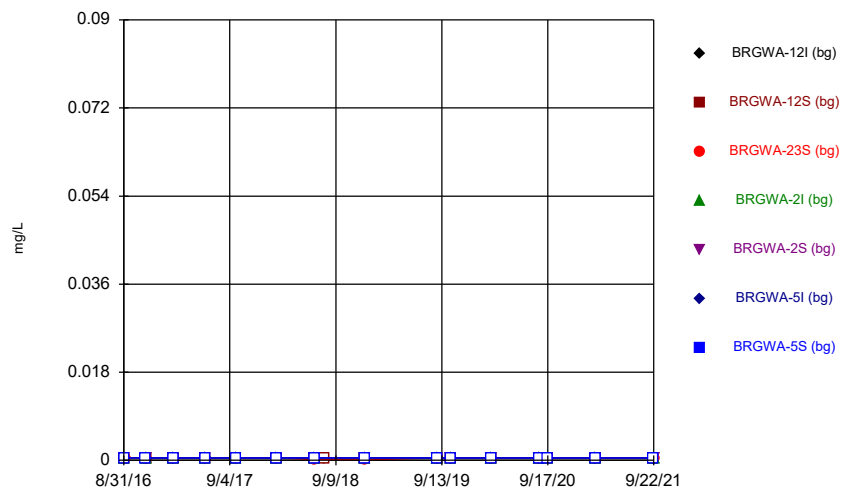
Time Series



Constituent: Boron Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

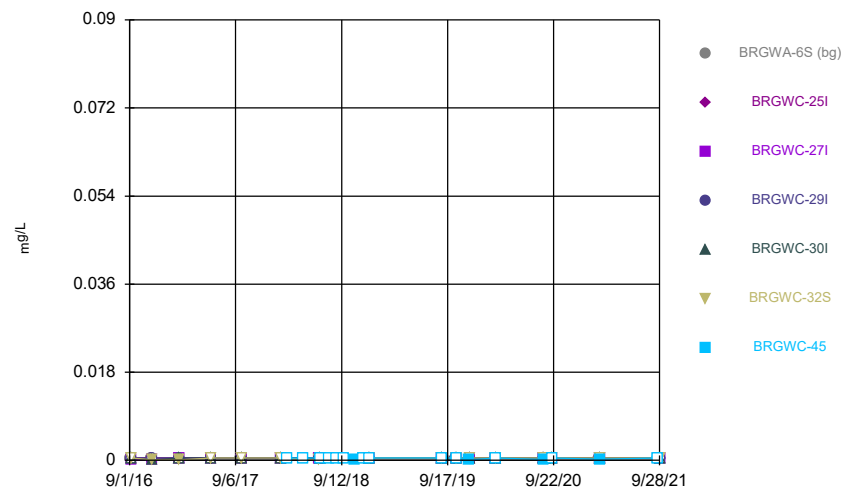


### Time Series



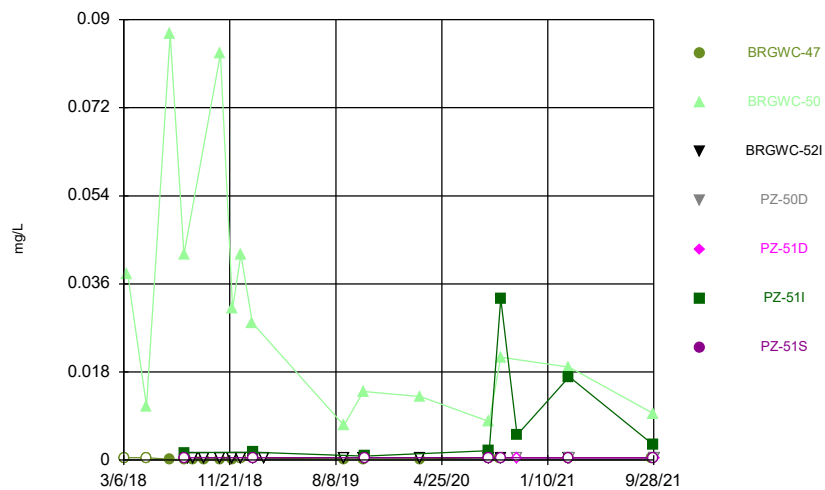
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



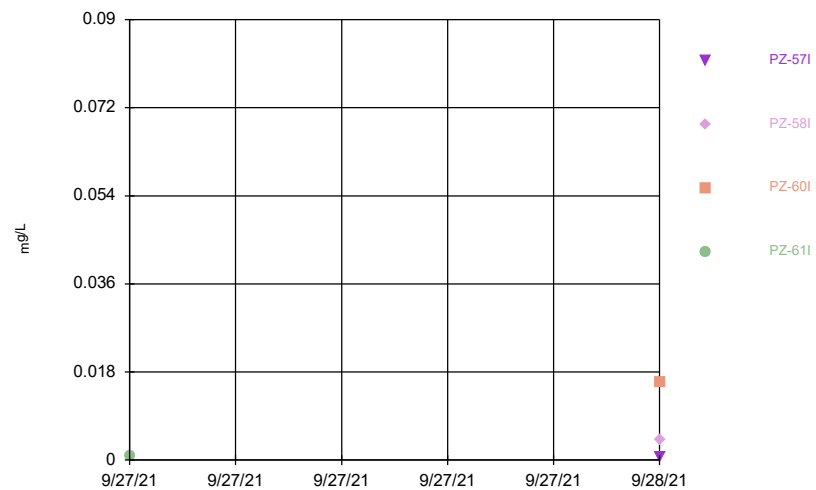
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



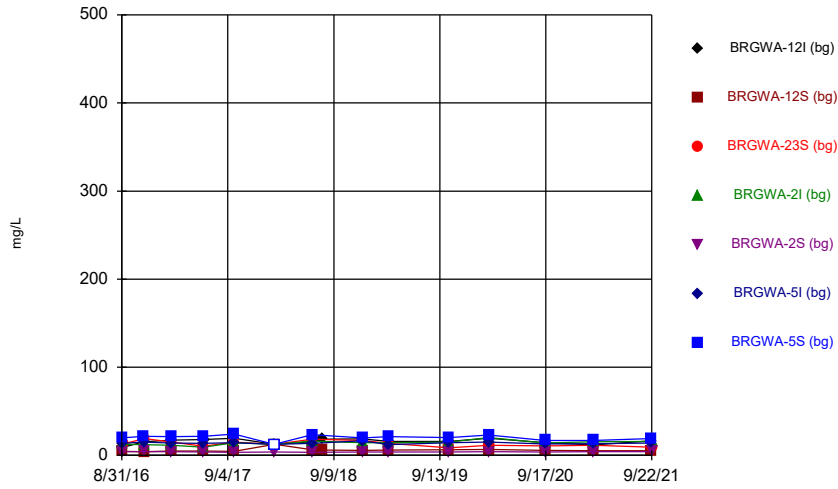
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



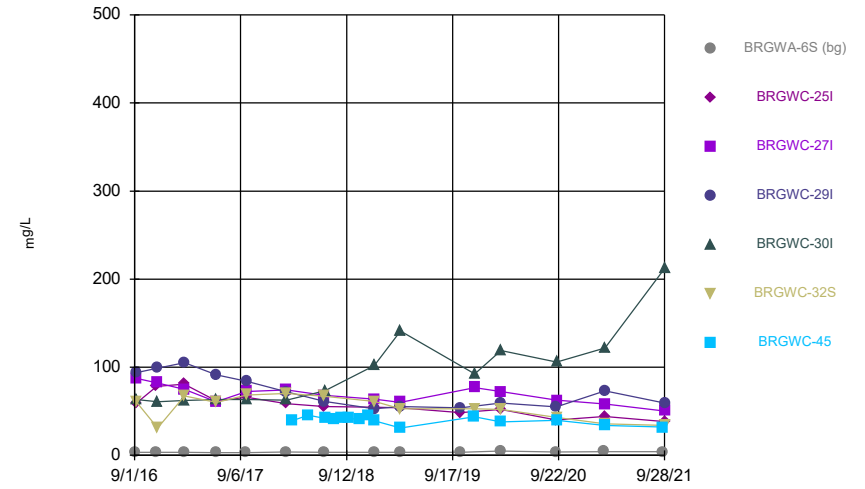
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



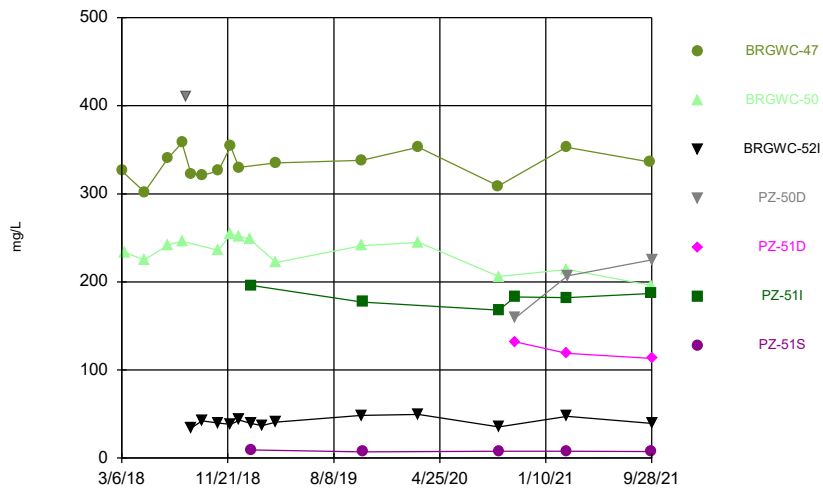
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



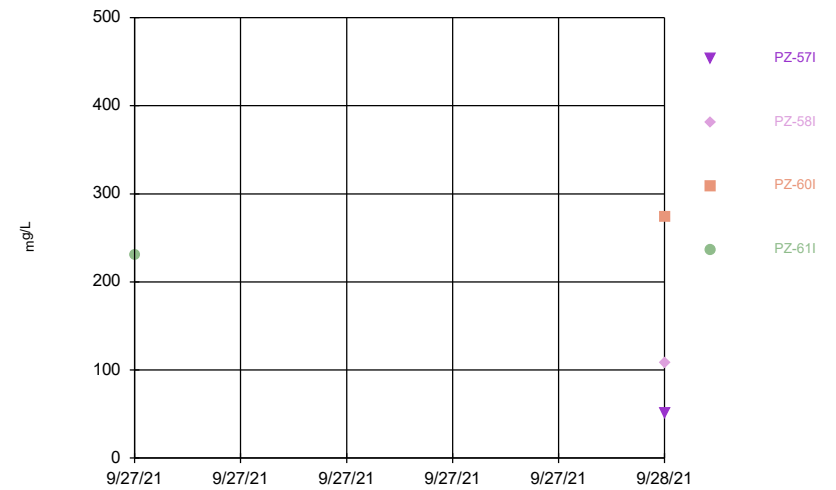
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



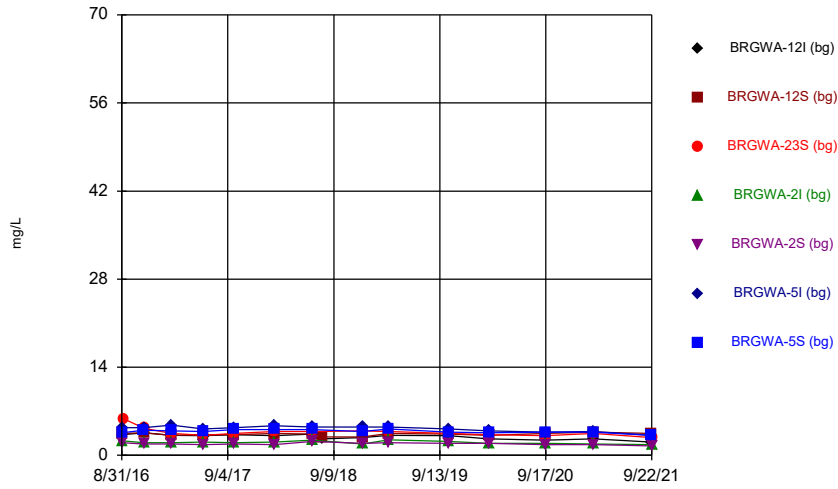
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



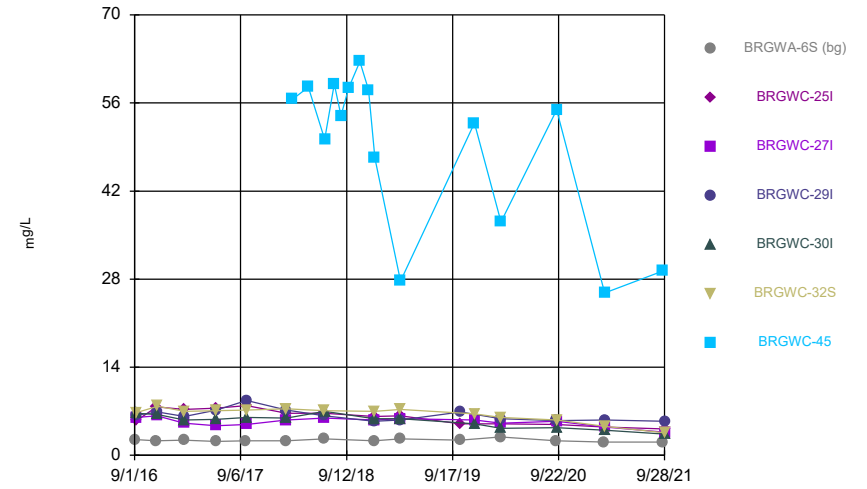
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Time Series



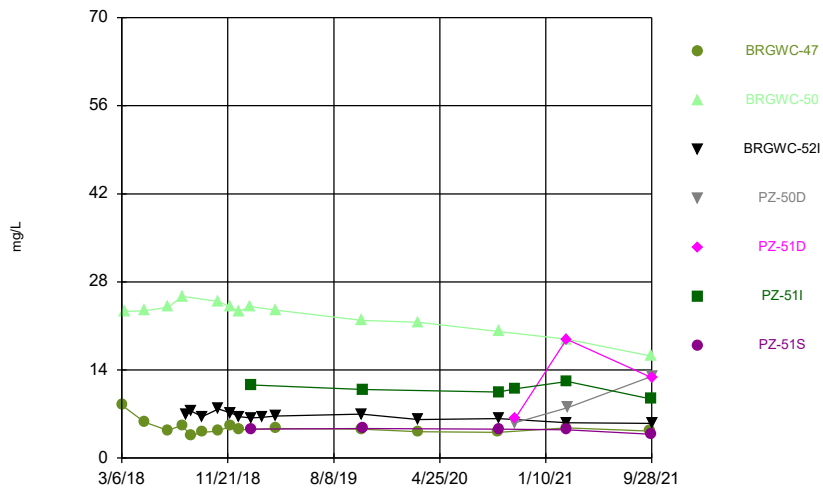
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Time Series



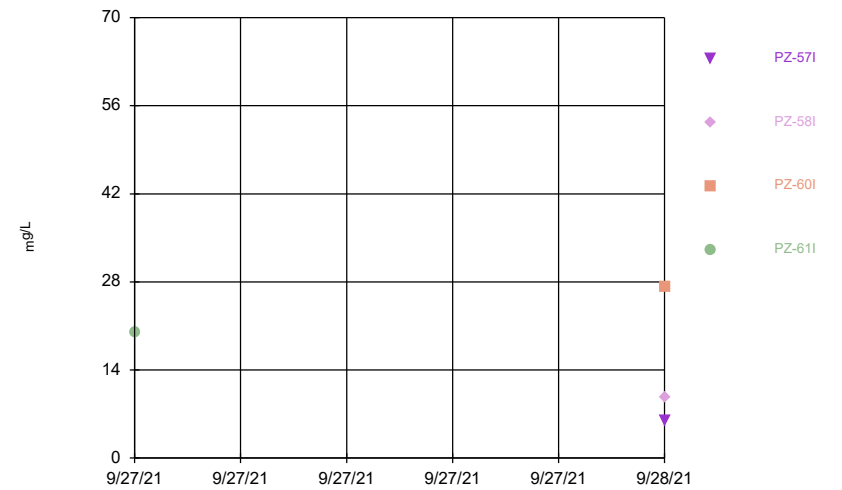
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Time Series



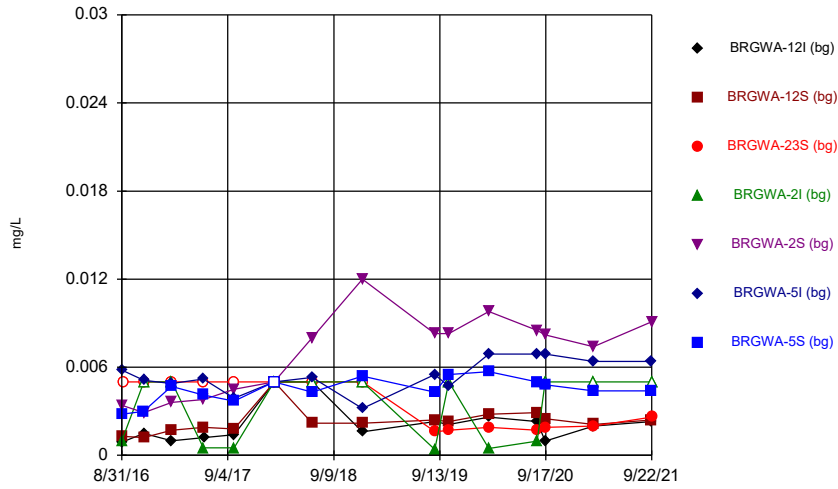
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Time Series



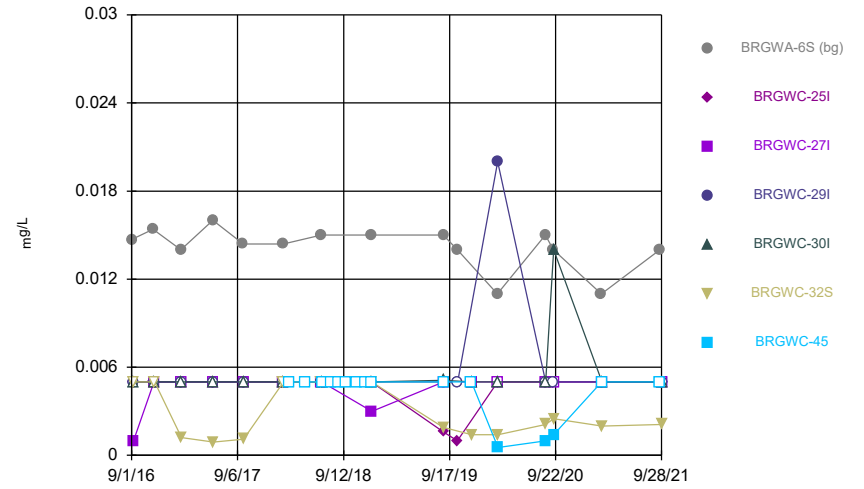
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Time Series



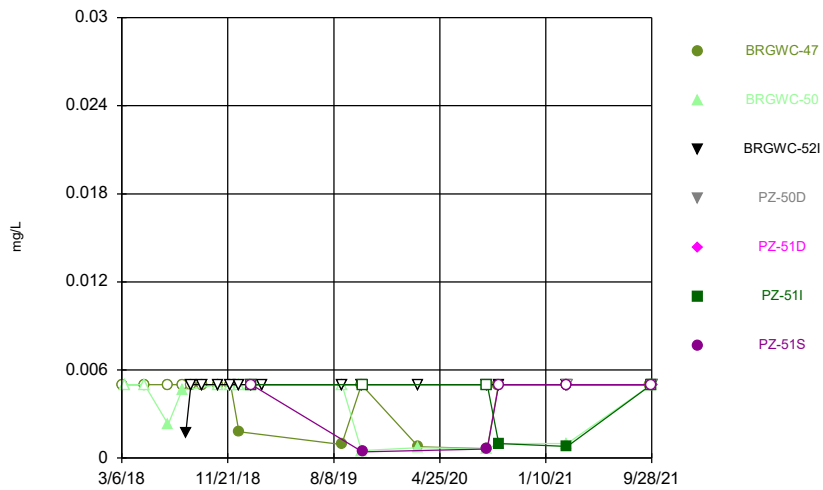
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Time Series



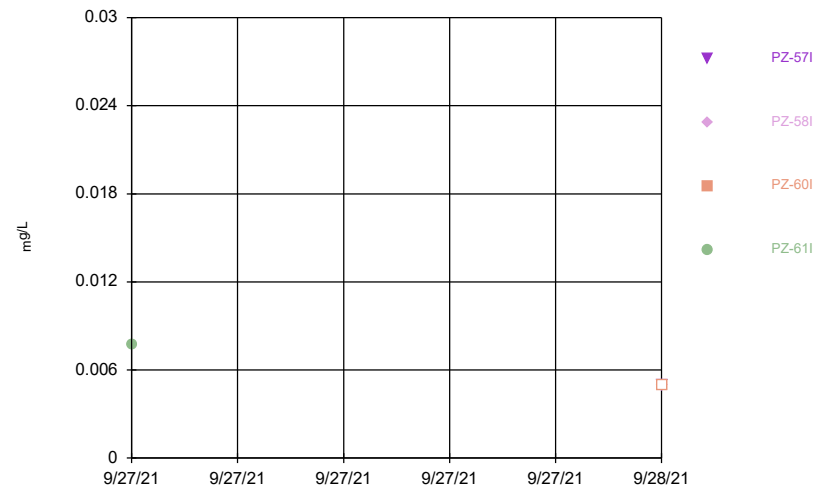
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



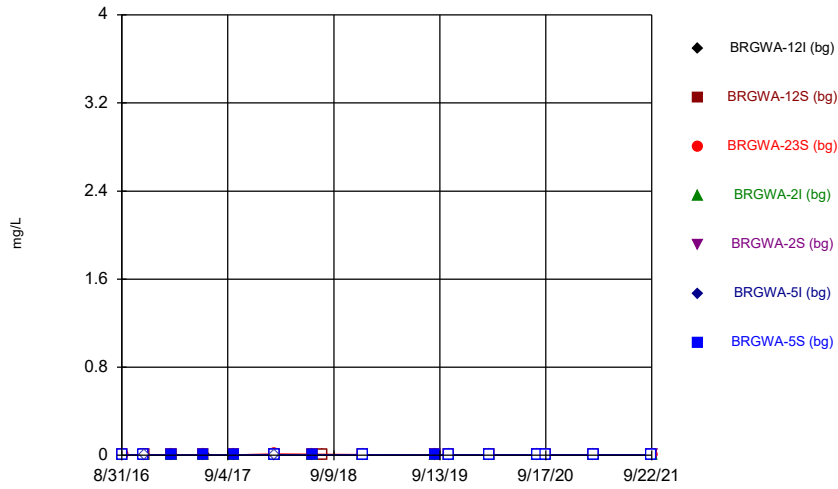
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



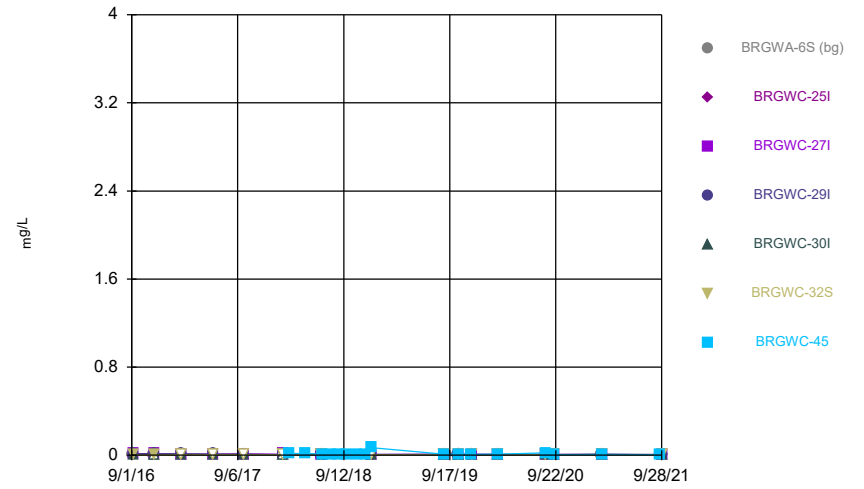
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



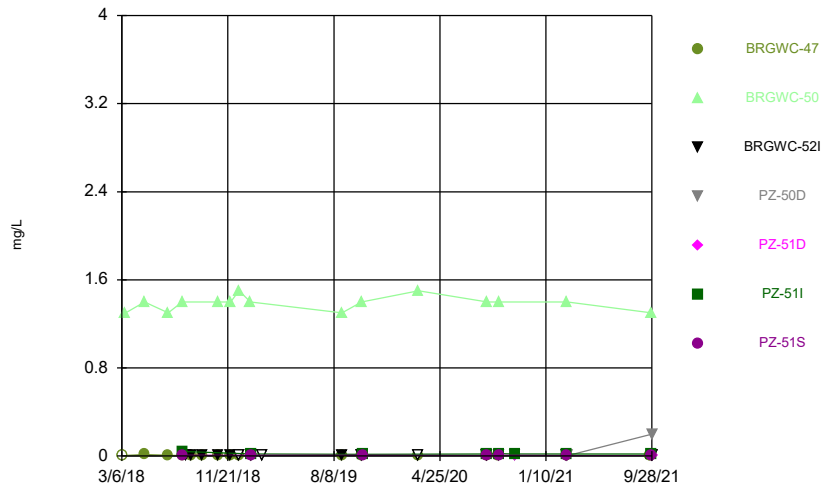
Constituent: Cobalt Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



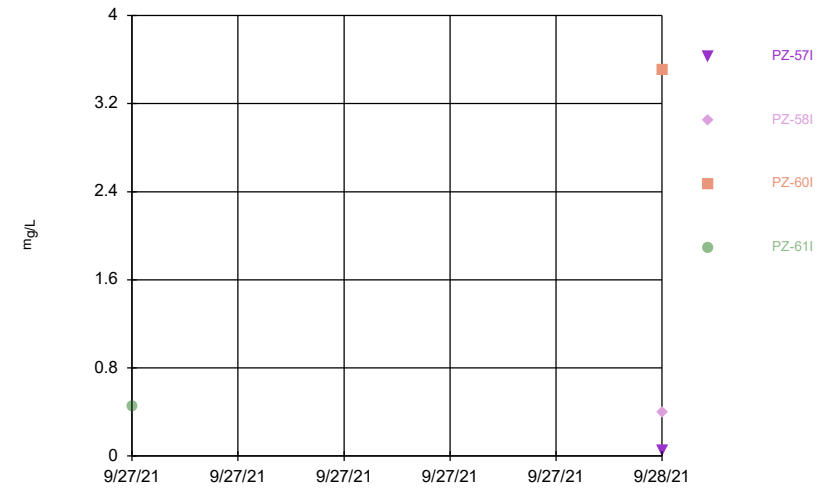
Constituent: Cobalt Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



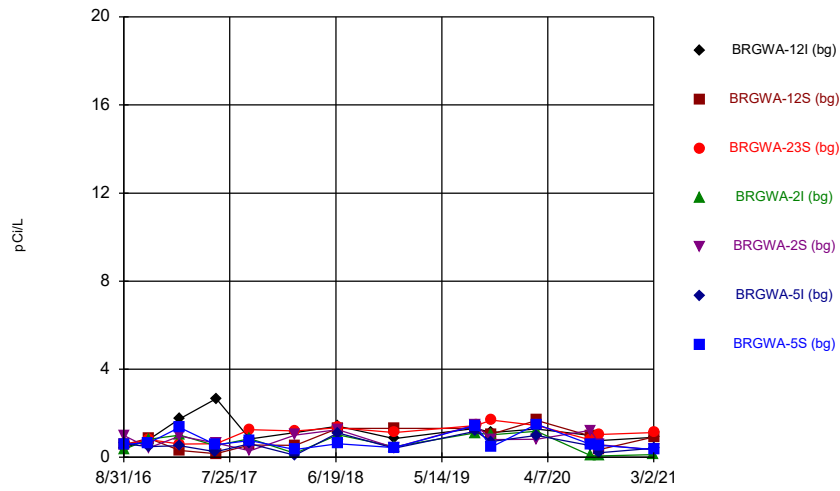
Constituent: Cobalt Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



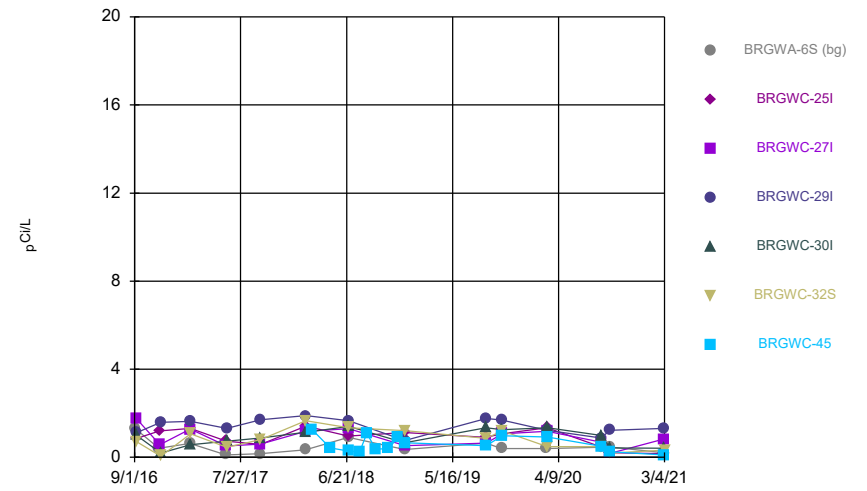
Constituent: Cobalt Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



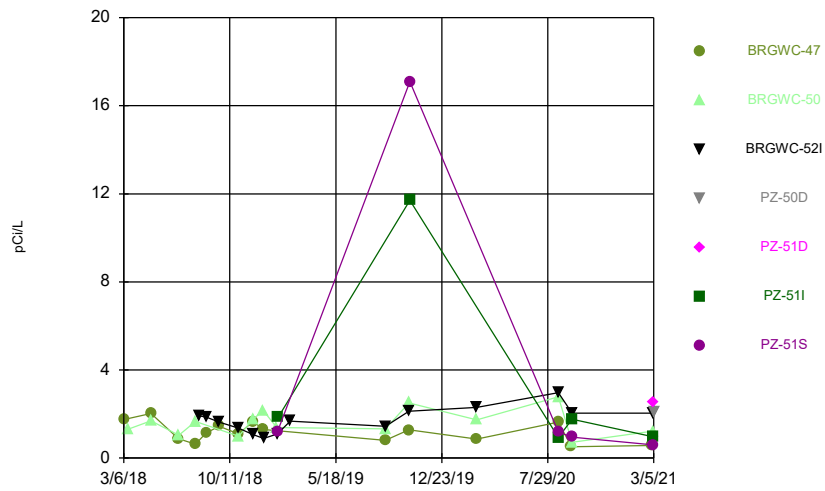
Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2021 6:56 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



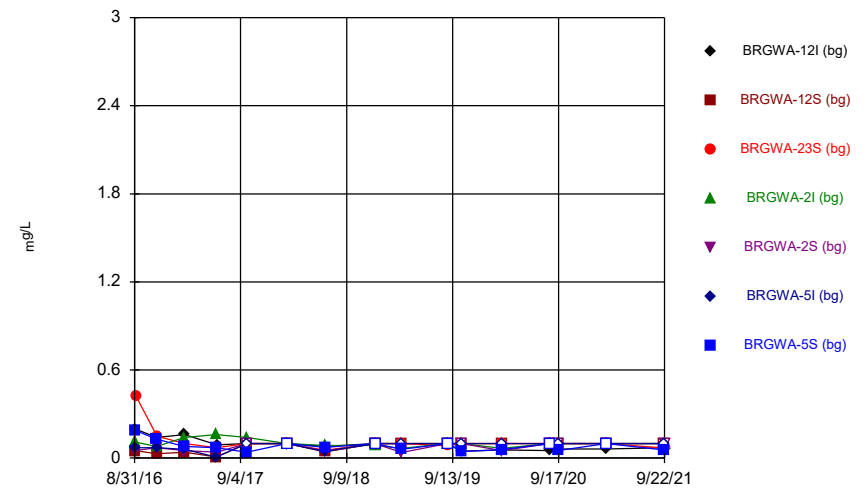
Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2021 6:56 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



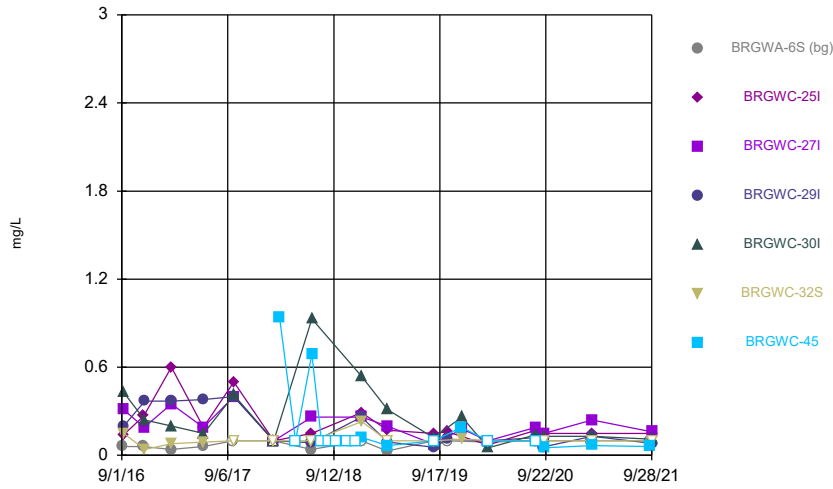
Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2021 6:56 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



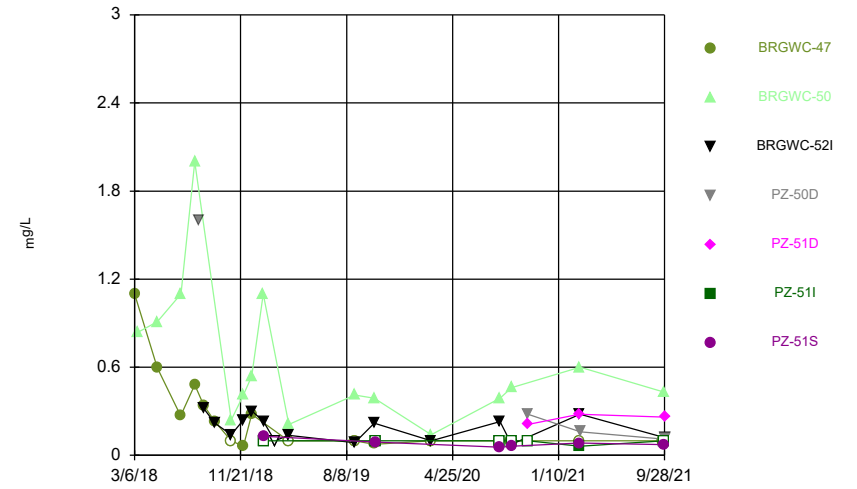
Constituent: Fluoride Analysis Run 11/5/2021 6:56 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



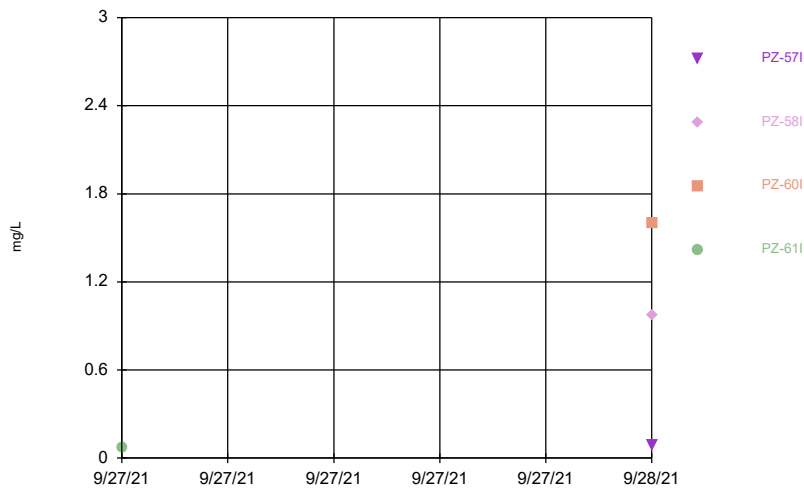
Constituent: Fluoride Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



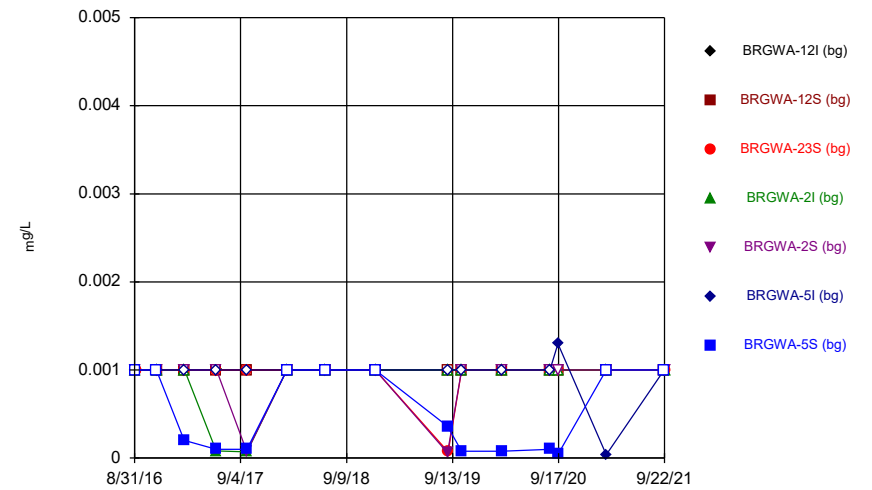
Constituent: Fluoride Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



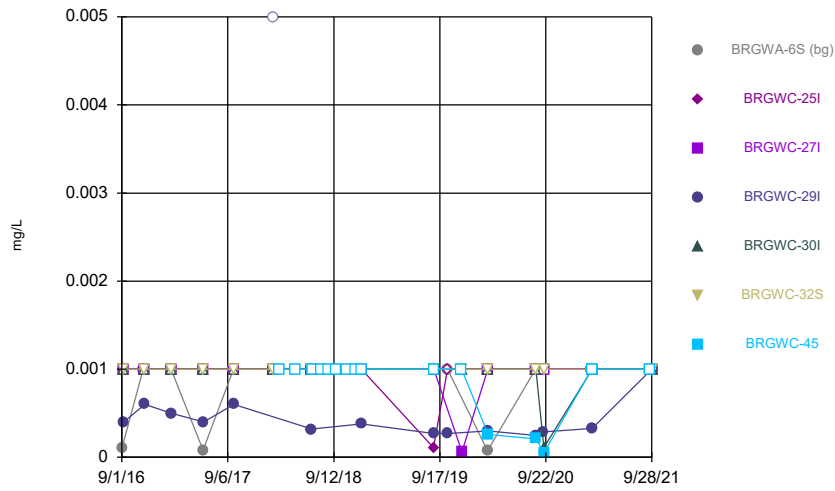
Constituent: Fluoride Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



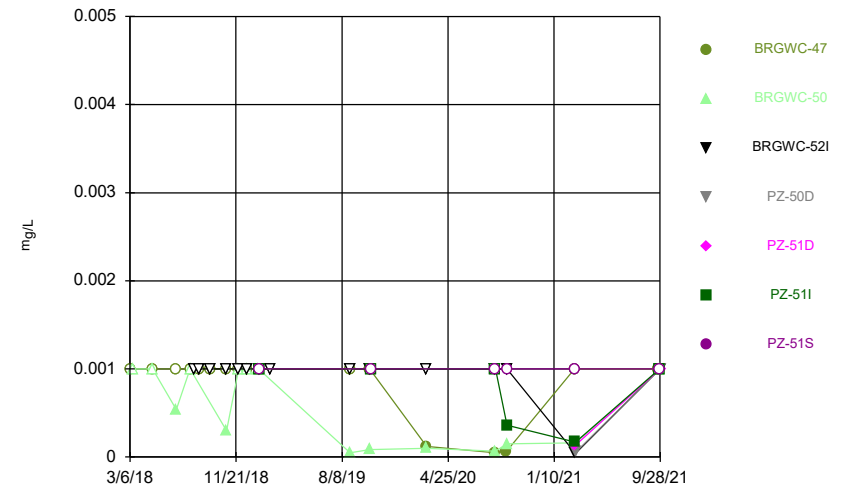
Constituent: Lead Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



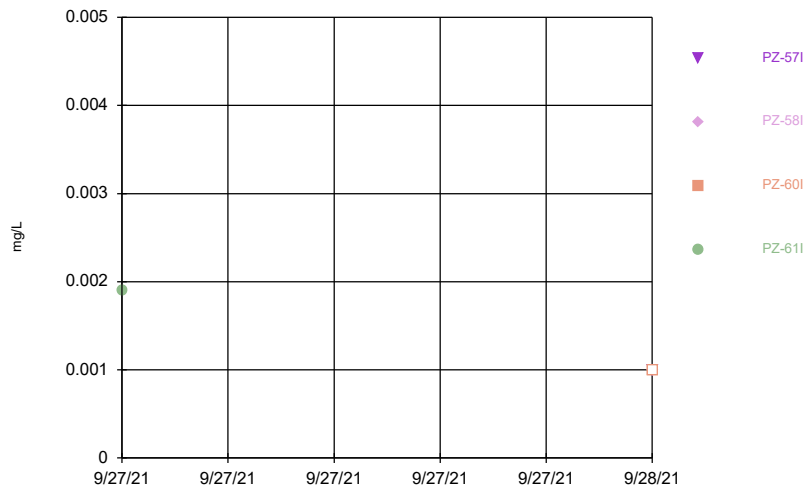
Constituent: Lead Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



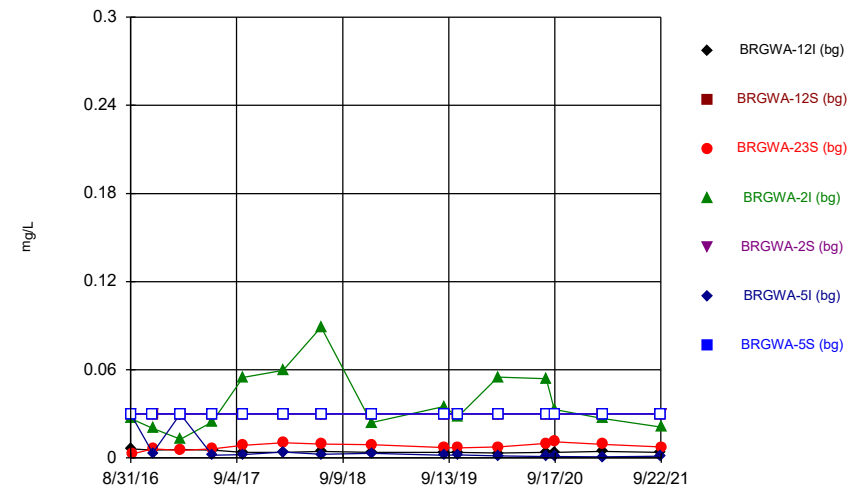
Constituent: Lead Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Lead Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

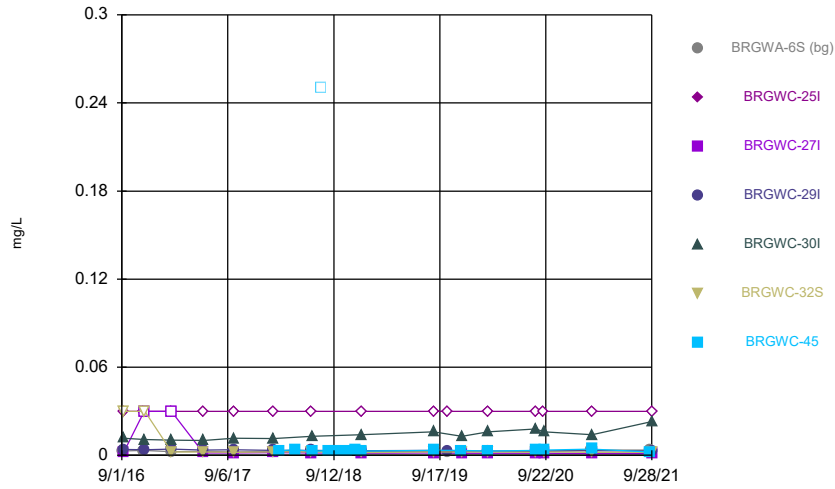
Time Series



Constituent: Lithium Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

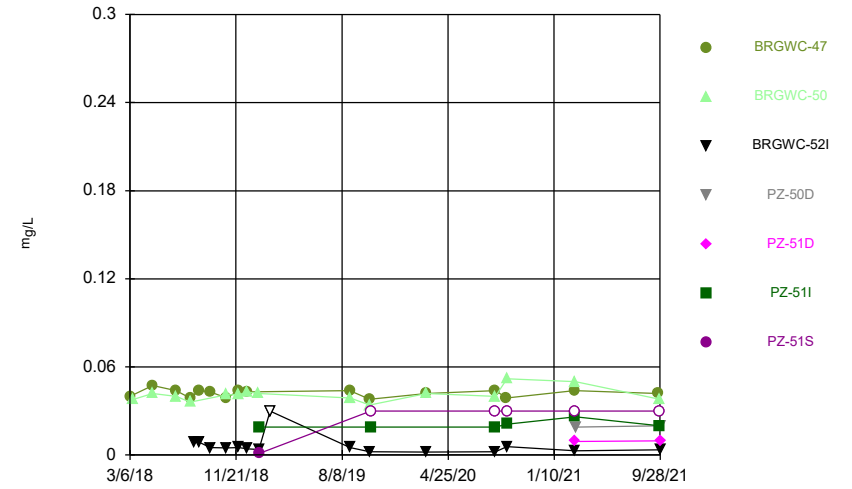


Time Series



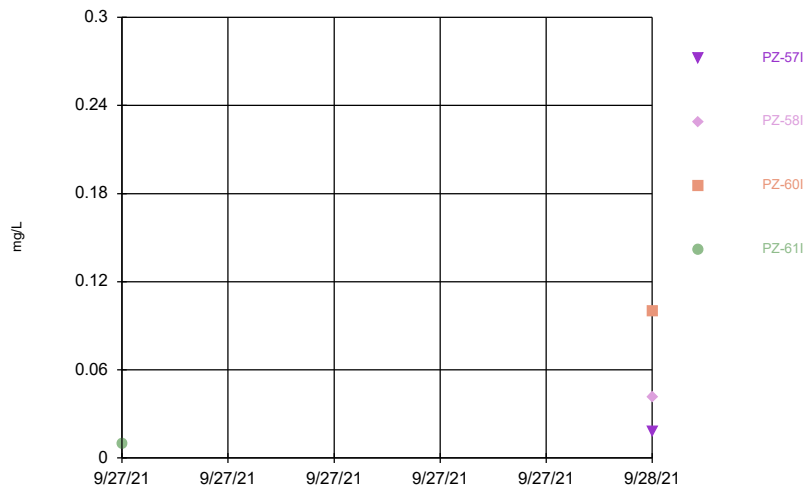
Constituent: Lithium Analysis Run 11/5/2021 6:56 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



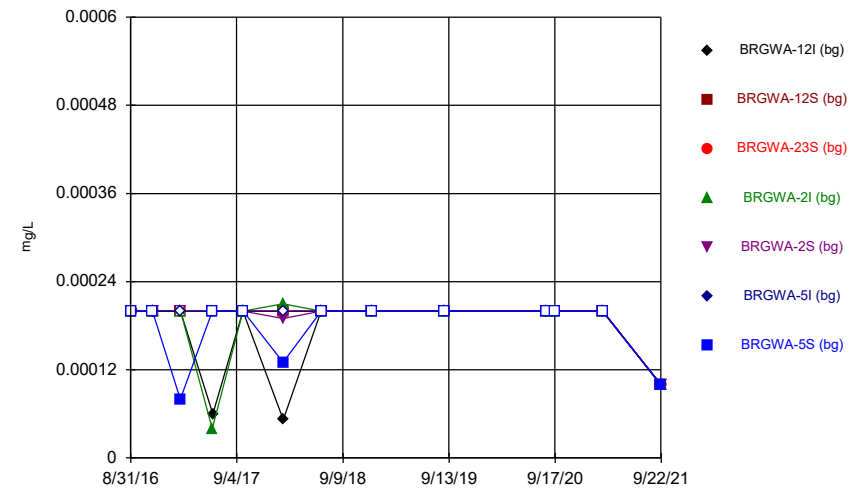
Constituent: Lithium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



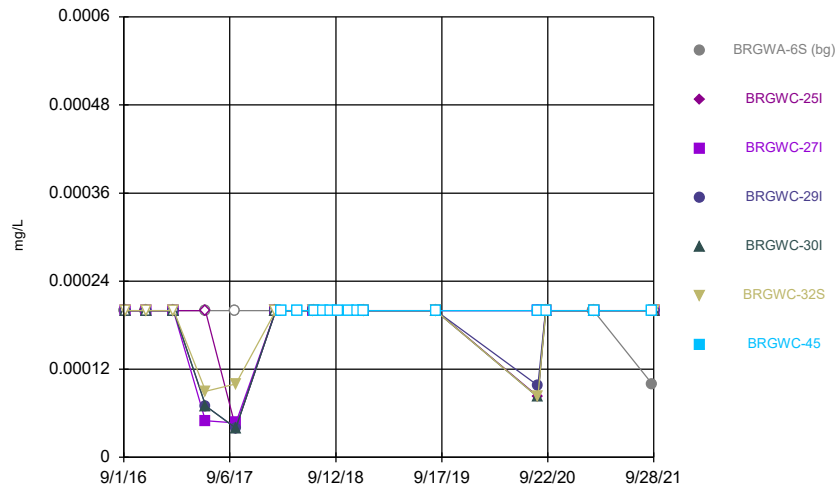
Constituent: Lithium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



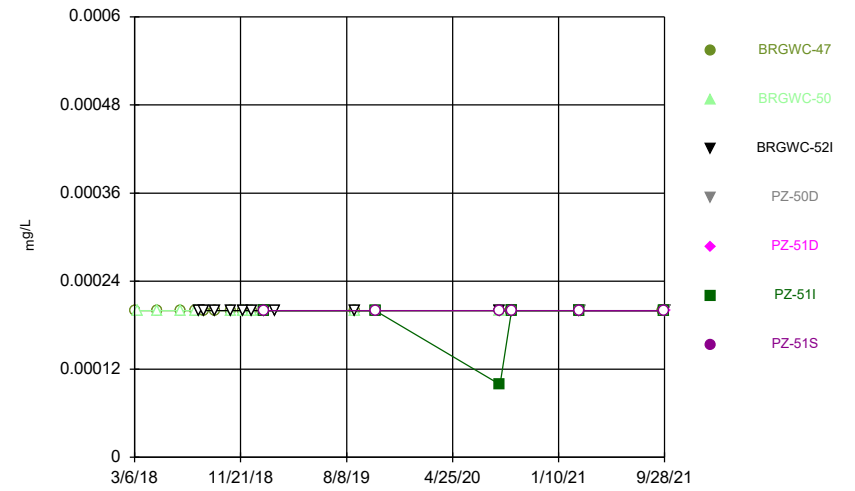
Constituent: Mercury Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



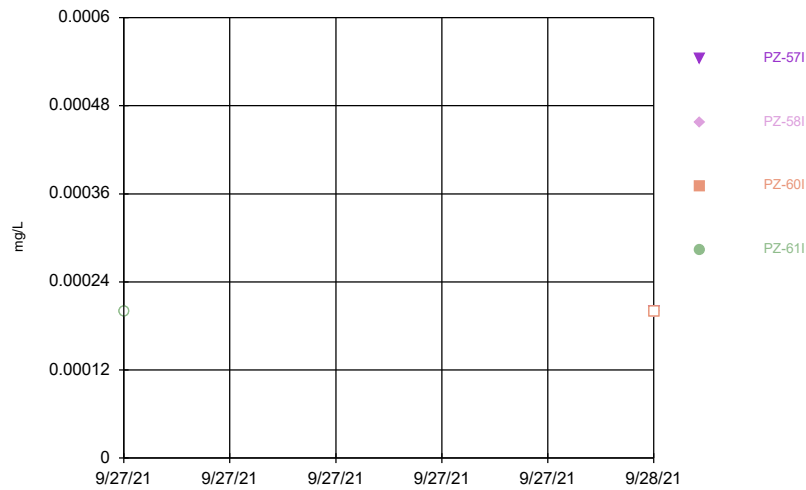
Constituent: Mercury Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



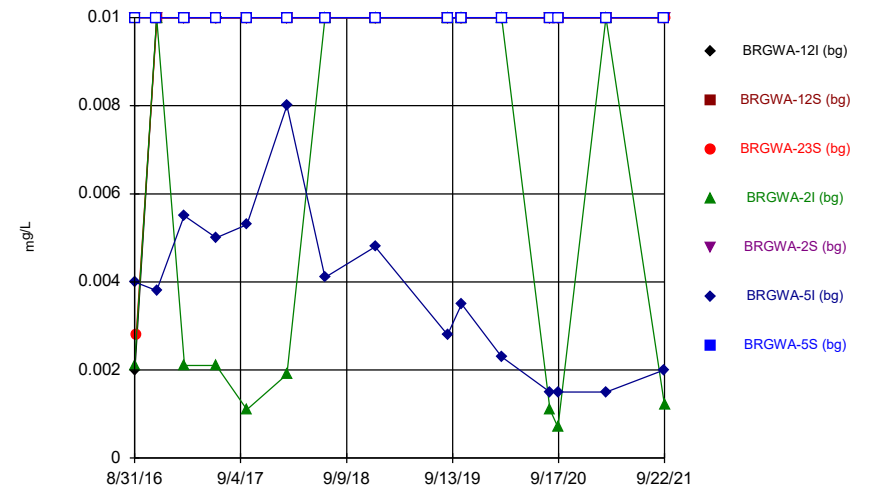
Constituent: Mercury Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



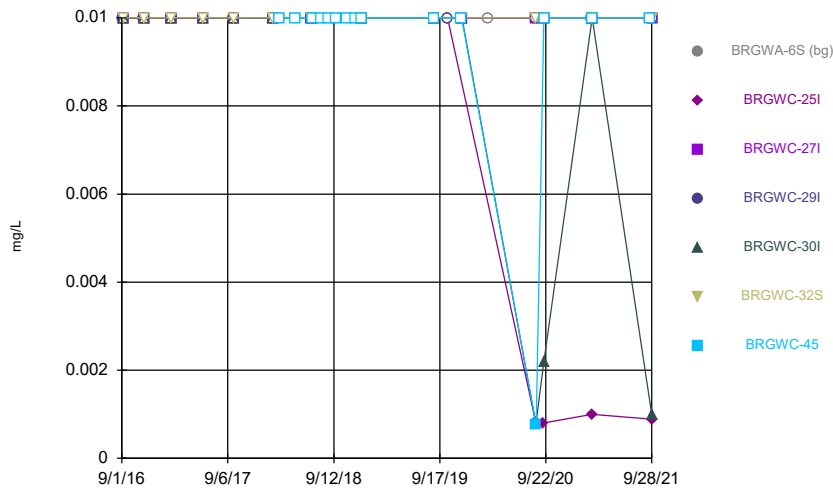
Constituent: Mercury Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



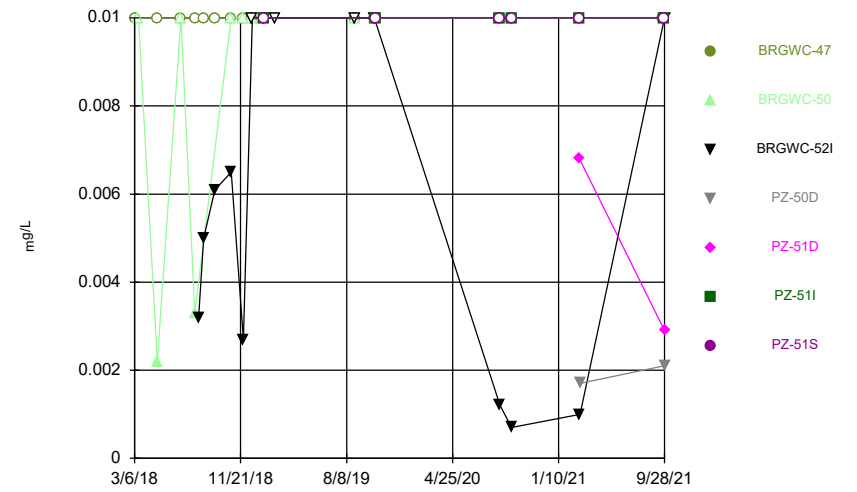
Constituent: Molybdenum Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



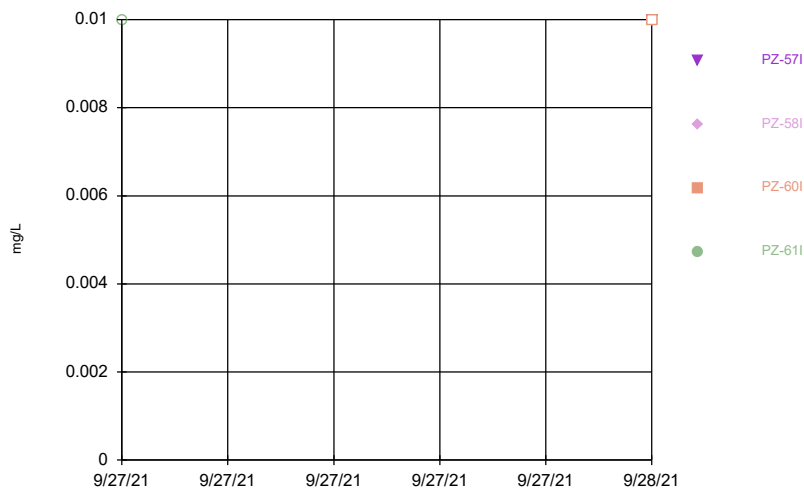
Constituent: Molybdenum Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



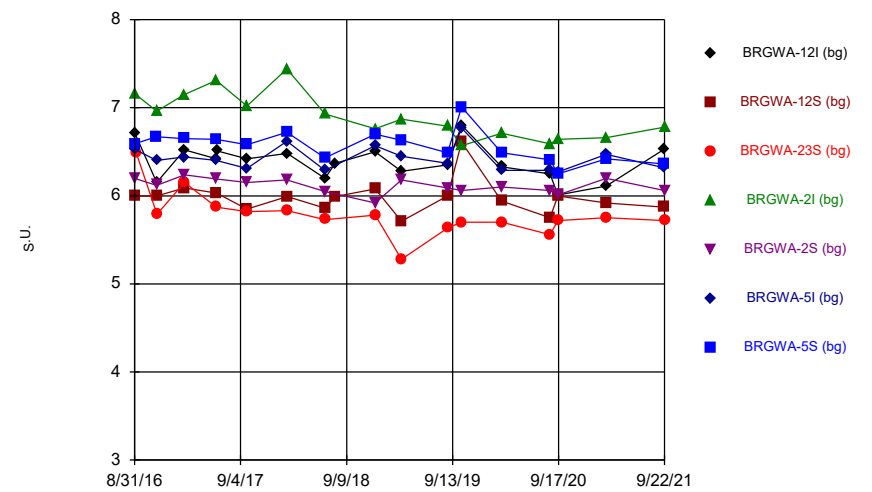
Constituent: Molybdenum Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



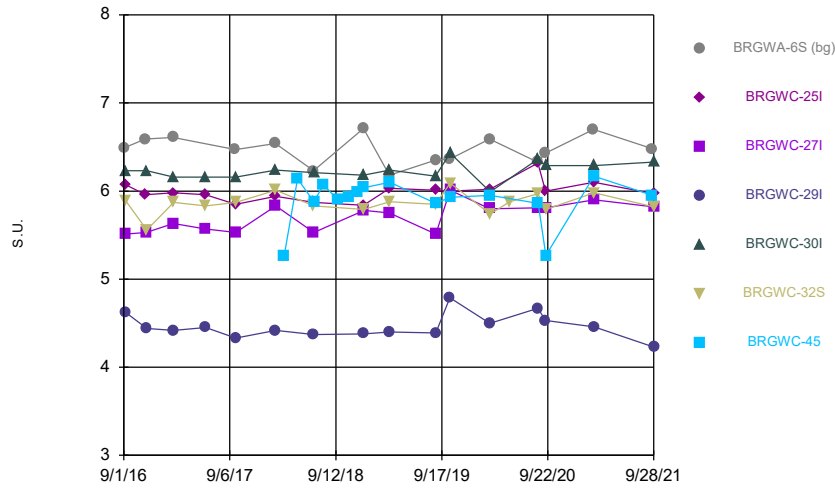
Constituent: Molybdenum Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



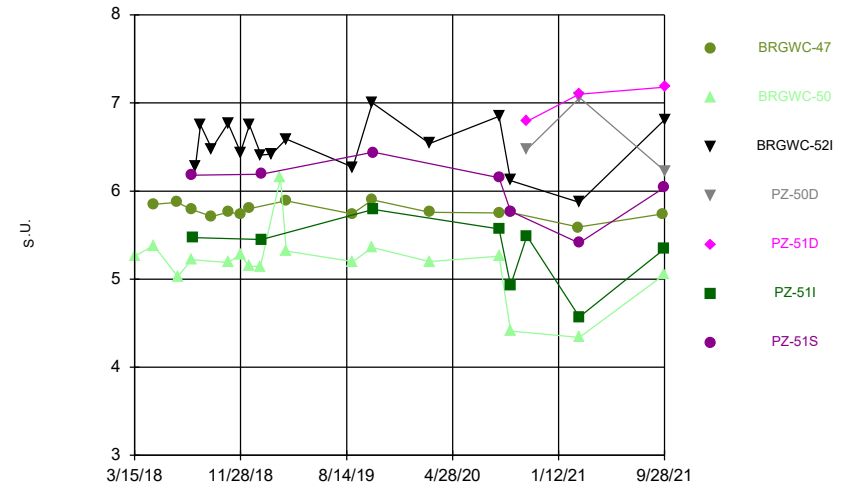
Constituent: pH, Field Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



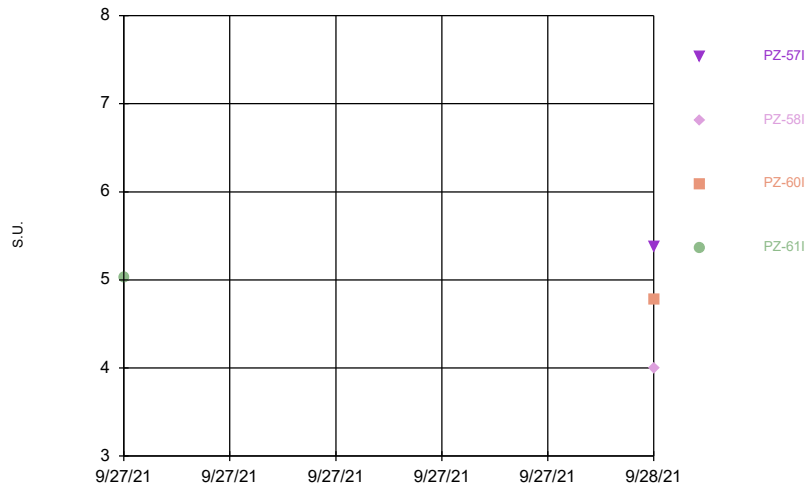
Constituent: pH, Field Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



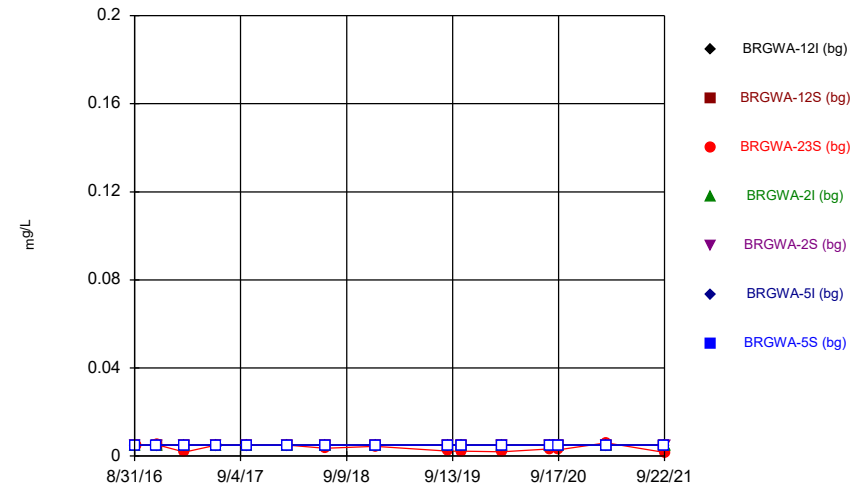
Constituent: pH, Field Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



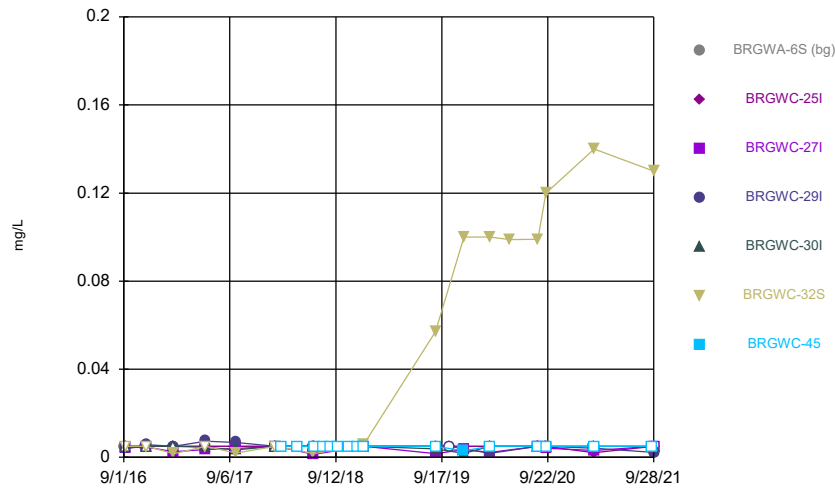
Constituent: pH, Field Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



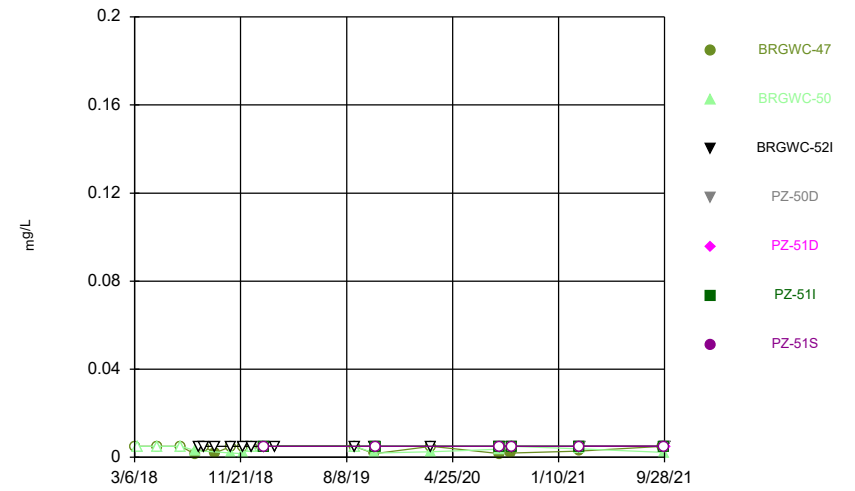
Constituent: Selenium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



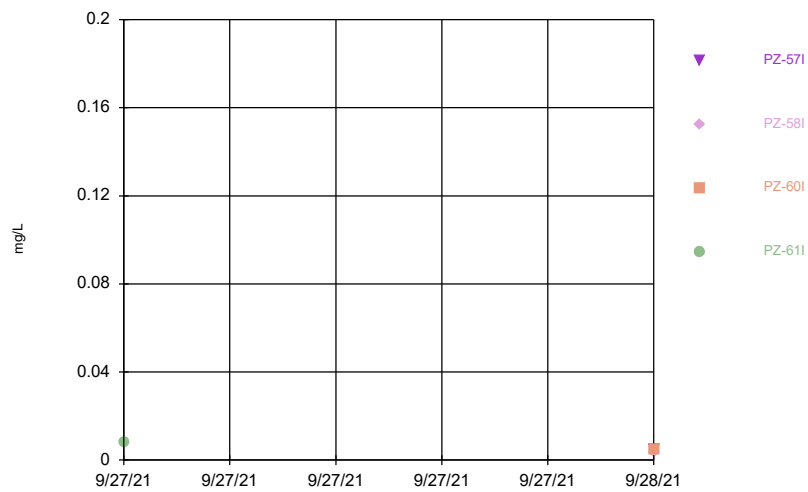
Constituent: Selenium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



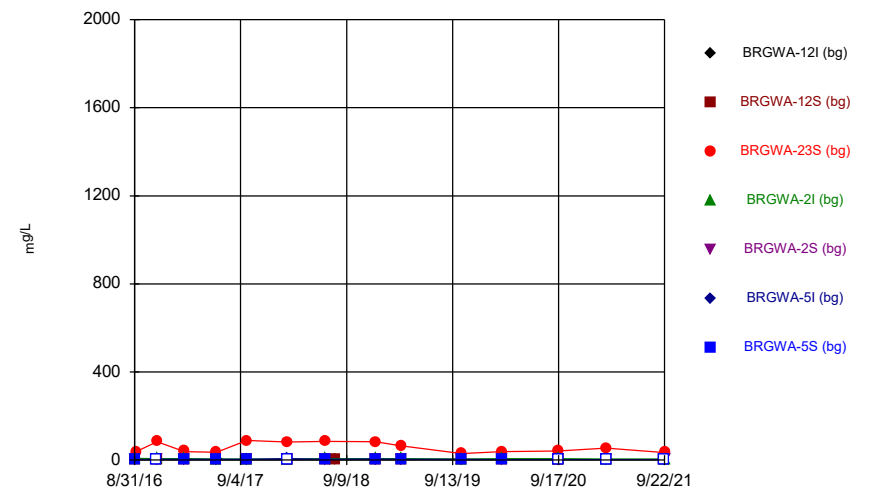
Constituent: Selenium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



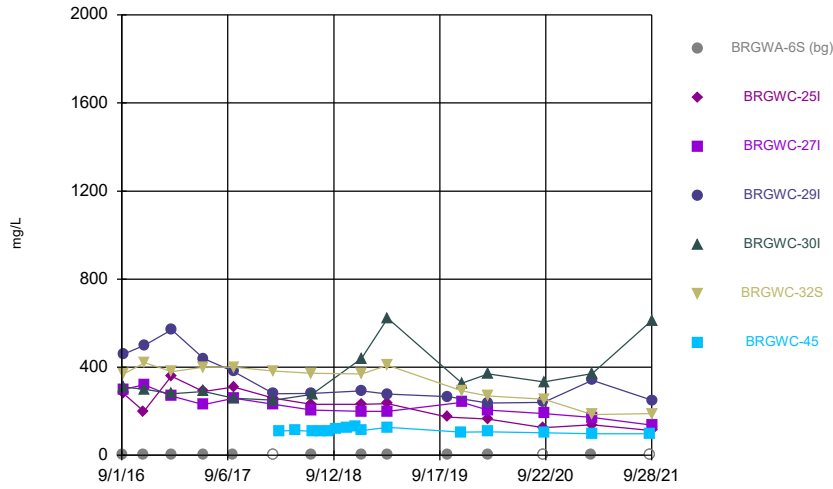
Constituent: Selenium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



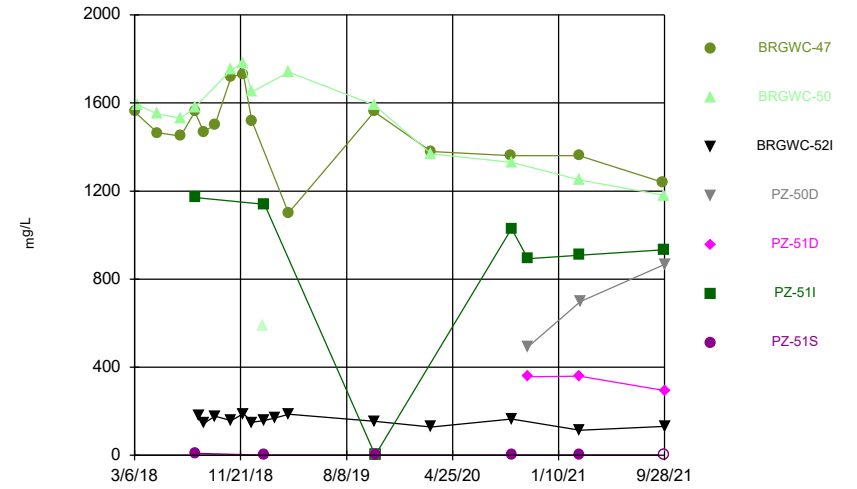
Constituent: Sulfate Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



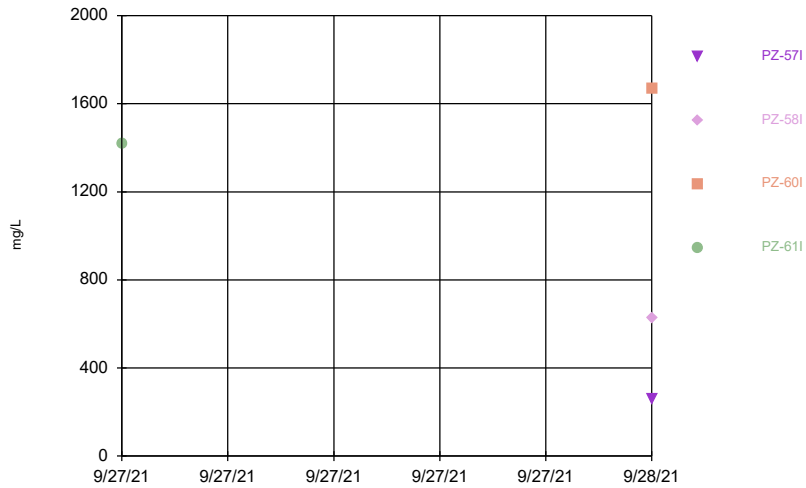
Constituent: Sulfate Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



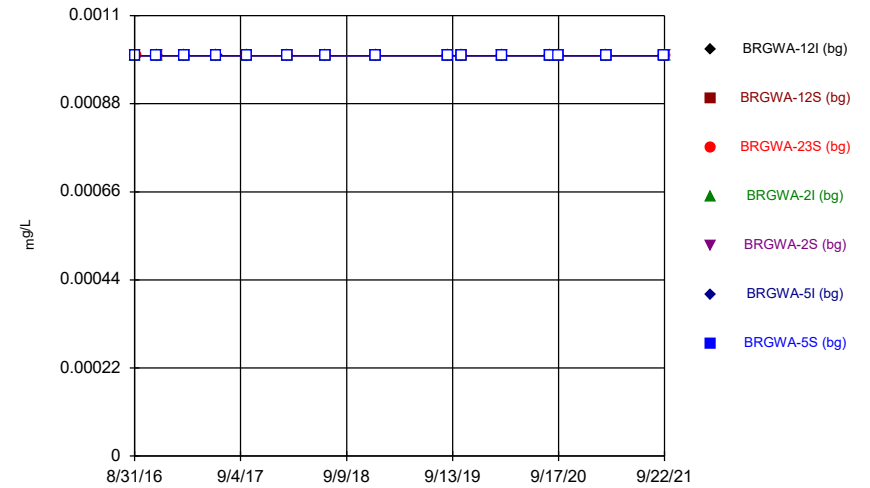
Constituent: Sulfate Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



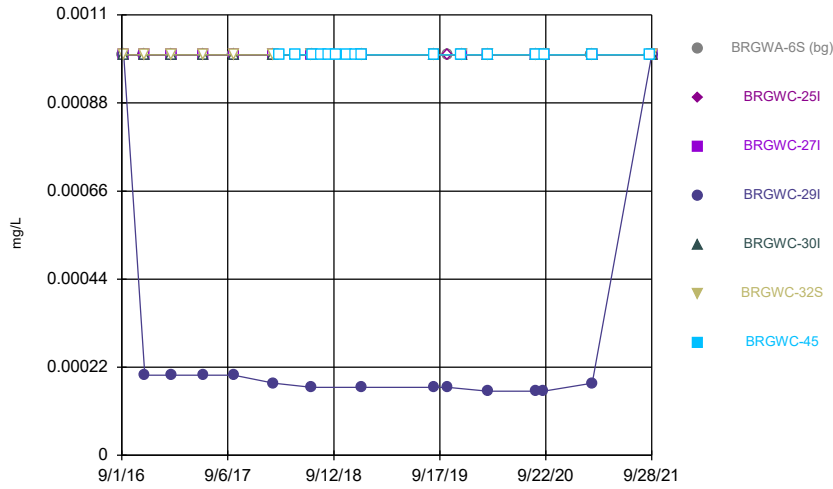
Constituent: Sulfate Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



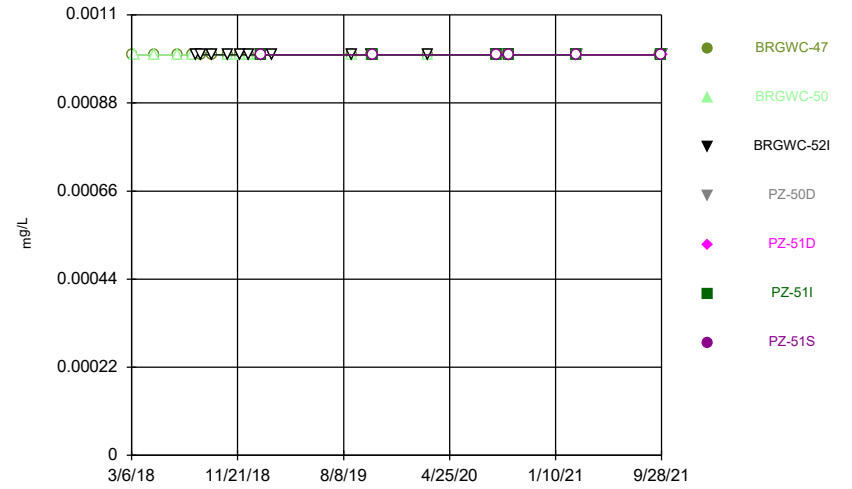
Constituent: Thallium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



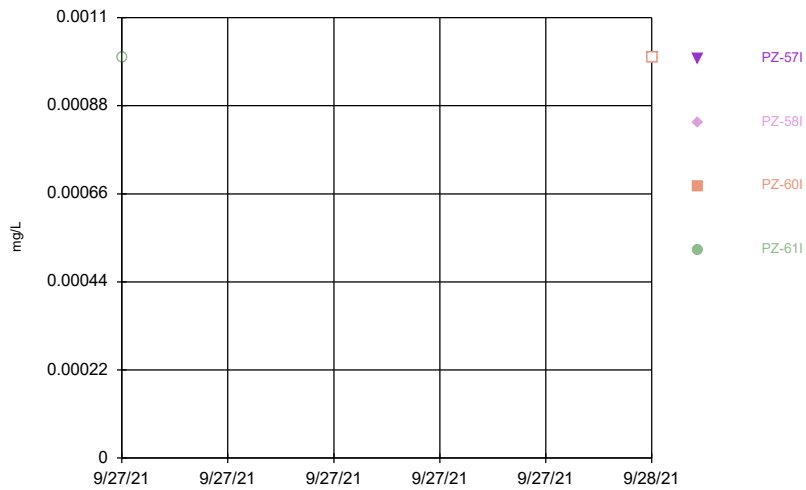
Constituent: Thallium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



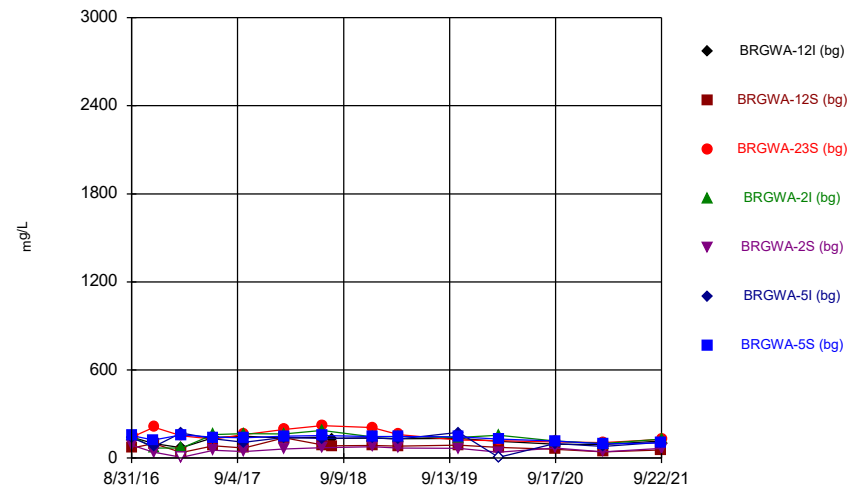
Constituent: Thallium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



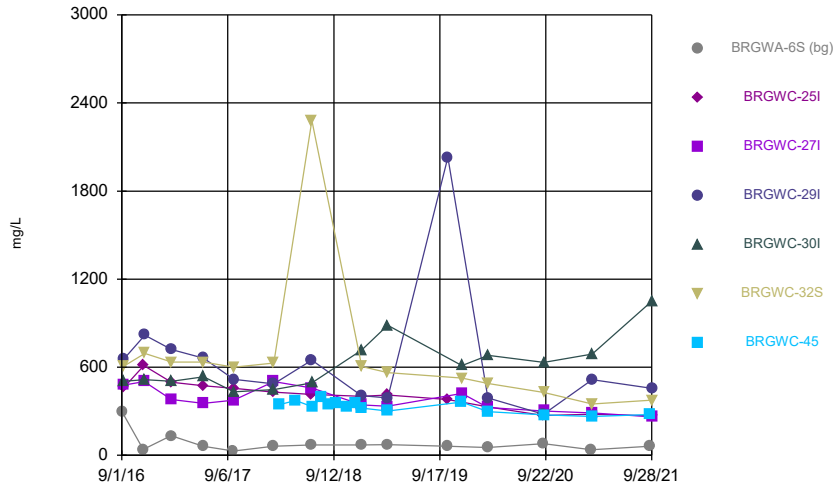
Constituent: Thallium Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



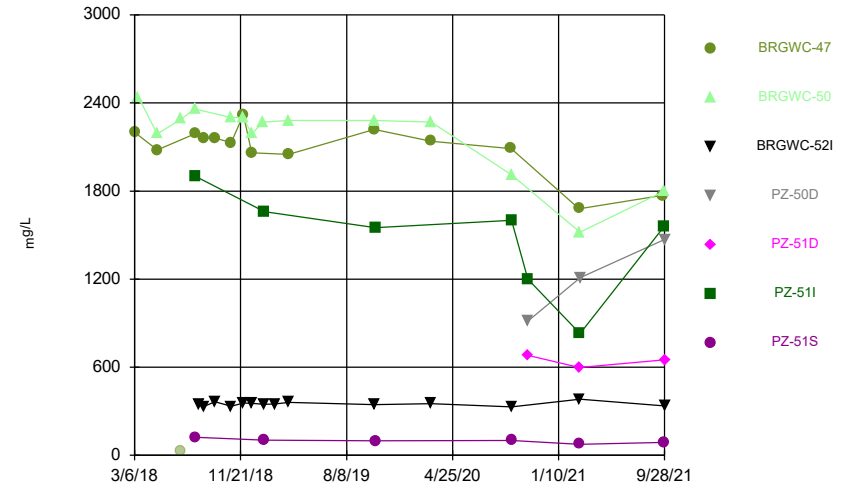
Constituent: Total Dissolved Solids Analysis Run 11/5/2021 6:57 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



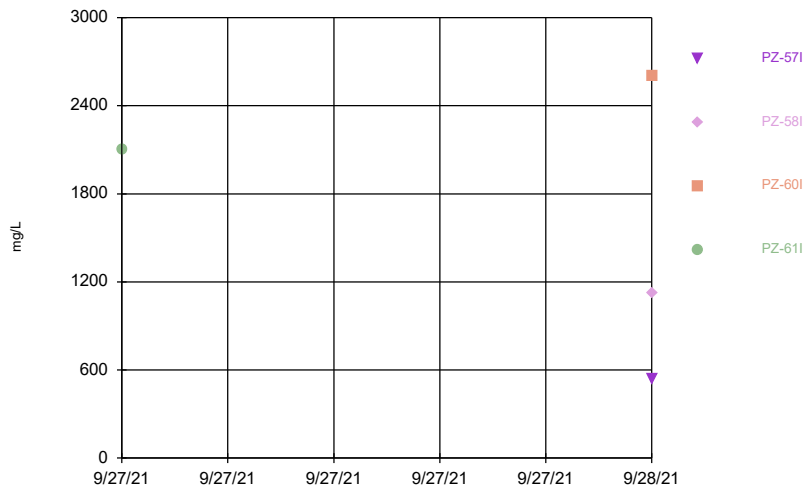
Constituent: Total Dissolved Solids Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



Constituent: Total Dissolved Solids Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



Constituent: Total Dissolved Solids Analysis Run 11/5/2021 6:57 AM View: Descriptive  
 Plant Branch Client: Southern Company Data: Plant Branch AP





# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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			<0.005				
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	



# Time Series

Constituent: Barium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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



# Time Series

Constituent: Barium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	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					
9/27/2021		0.014	0.025				0.029
9/28/2021	0.057			0.022	0.017	0.022	



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	<0.0005	<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		<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)

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
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			<0.0005				
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	



# Time Series

Constituent: Boron (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	





# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	7E-05 (J)	<0.0005		<0.0005					
11/18/2016	9E-05 (J)								
11/21/2016		<0.0005	8E-05 (J)	8E-05 (J)					
2/21/2017	<0.0005								
2/22/2017		<0.0005	<0.0005	0.0001 (J)					
6/13/2017	<0.0005								
6/14/2017		<0.0005	<0.0005	<0.0005					
9/27/2017	<0.0005	<0.0005	<0.0005	<0.0005					
2/14/2018	<0.0005	<0.0005	<0.0005	<0.0005					
3/6/2018					<0.0005	<0.0005			
3/15/2018							0.038		
5/1/2018					<0.0005	<0.0005 (D)	0.011		
6/27/2018	<0.0005	<0.0005		0.00011 (J)		0.00014 (J)			
6/28/2018			<0.0005		<0.0005		0.087		
7/31/2018					<0.0005				
8/1/2018						0.00011 (J)	0.042		
8/10/2018								<0.0005	
8/23/2018					<0.0005	0.00018 (J)		<0.0005	
9/19/2018					<0.0005	0.00015 (J)		<0.0005	
10/29/2018					9.8E-05 (J)	0.00019 (J)	0.083	<0.0005	
11/28/2018					<0.0005	0.00022 (J)	0.031	<0.0005	
12/18/2018		<0.0005	<0.0005						
12/19/2018				<0.0005 (X)		<0.0005	0.042		
12/20/2018	<0.0005				<0.0005 (X)			<0.0005	
1/16/2019							0.028		
1/17/2019								<0.0005	
2/13/2019								<0.0005	
8/27/2019			<0.0005	<0.0005					
8/28/2019	<0.0005	<0.0005			<0.0005	0.00017 (J)			
8/29/2019							0.0071	<0.0005	
10/16/2019		<0.0005				0.00018 (J)	0.014	<0.0005	
10/17/2019	<0.0005		<0.0005	<0.0005	<0.0005				
12/3/2019					0.00011 (J)				
12/4/2019	<0.0005		<0.0005	<0.0005					
3/4/2020	<0.0005	<0.0005				0.00024 (J)	0.013	<0.0005	
3/5/2020			<0.0005	<0.0005	<0.0005				
8/19/2020	<0.0005	<0.0005	<0.0005	<0.0005					
8/20/2020					0.00014 (J)	<0.0005	0.0079	<0.0005	
9/15/2020		<0.0005							
9/16/2020	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005			
9/17/2020							0.021	<0.0005	
10/27/2020									<0.0005
3/2/2021					0.0002 (J)	<0.0005			
3/3/2021	<0.0005	<0.0005	<0.0005						
3/4/2021				<0.0005			0.019	<0.0005	
3/5/2021									<0.0005
9/23/2021					<0.0005	<0.0005			
9/27/2021							0.0095		
9/28/2021	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005	<0.0005

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
8/2/2018			<0.0005				
8/3/2018		0.0015					
1/18/2019			<0.0005				
1/19/2019		0.0016					
10/18/2019		0.00083 (J)	<0.0005				
8/20/2020		0.0019 (J)	<0.0005				
9/17/2020		0.033	<0.0005				
10/27/2020	<0.0005	0.0051					
3/3/2021	<0.0005		<0.0005				
3/4/2021		0.017					
9/27/2021		0.0031	<0.0005				0.00081
9/28/2021	<0.0005			0.00064	0.0042	0.016	



# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	



# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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 (D)	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

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	





# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	0.001 (J)	<0.005		<0.005					
11/18/2016	<0.005								
11/21/2016		<0.005	<0.005	<0.005					
2/21/2017	<0.005								
2/22/2017		<0.005	<0.005	0.0012 (J)					
6/13/2017	<0.005								
6/14/2017		<0.005	<0.005	0.0009 (J)					
9/27/2017	<0.005	<0.005	<0.005	0.0011 (J)					
2/14/2018	<0.005	<0.005	<0.005	<0.005					
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	<0.005	<0.005		<0.005		<0.005			
6/28/2018			<0.005		<0.005		0.0023 (J)		
7/31/2018					<0.005				
8/1/2018						<0.005	0.0046 (J)		
8/10/2018								0.0017 (J)	
8/23/2018					<0.005	<0.005		<0.005	
9/19/2018					<0.005	<0.005		<0.005	
10/29/2018					<0.005	<0.005	<0.005	<0.005	
11/28/2018					<0.005	<0.005	<0.005	<0.005	
12/18/2018		<0.005	<0.005						
12/19/2018				<0.005		0.0018 (J)	<0.005		
12/20/2018	0.003 (J)				<0.005			<0.005	
1/16/2019							<0.005		
1/17/2019								<0.005	
2/13/2019								<0.005	
8/27/2019			0.0051 (J)	0.0019 (J)					
8/28/2019	<0.005	<0.005			<0.005	0.00092 (J)			
8/29/2019							<0.005	<0.005	
10/16/2019		<0.005				<0.005	0.0005 (J)	<0.005	
12/3/2019					<0.005				
12/4/2019	<0.005		<0.005	0.0014 (J)					
3/4/2020	<0.005	0.02				0.00078 (J)	0.00071 (J)	<0.005	
3/5/2020			<0.005	0.0014 (J)	0.00053 (J)				
8/19/2020	<0.005	<0.005	<0.005	0.0021 (J)					
8/20/2020					0.001 (J)	0.00064 (J)	0.00065 (J)	<0.005	
9/15/2020		<0.005							
9/16/2020	<0.005		0.014	0.0025 (J)	0.0014 (J)	<0.005			
9/17/2020							0.00098 (J)	<0.005	
3/2/2021					<0.005	<0.005			
3/3/2021	<0.005	<0.005	<0.005						
3/4/2021				0.002 (J)			0.001 (J)	<0.005	
3/5/2021									<0.005
9/23/2021					<0.005	<0.005			
9/27/2021							<0.005		
9/28/2021	<0.005	<0.005	<0.005	0.0021 (J)				<0.005	<0.005

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
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			<0.005				
1/19/2019		<0.005					
10/18/2019		<0.005	0.00042 (J)				
8/20/2020		<0.005	0.00063 (J)				
9/17/2020		0.00098 (J)	<0.005				
3/3/2021	<0.005		<0.005				
3/4/2021		0.0008 (J)					
9/27/2021		<0.005	<0.005				0.0077
9/28/2021	<0.005			<0.005	<0.005	<0.005	



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	<0.005	0.001 (J)					
2/21/2017	0.0099 (J)								
2/22/2017		0.0136	0.0016 (J)	<0.005					
6/13/2017	0.0094 (J)								
6/14/2017		0.0113	0.0015 (J)	<0.005					
9/27/2017	0.0095 (J)	0.0094 (J)	0.0007 (J)	<0.005					
2/14/2018	0.0112	<0.005	<0.005	<0.005					
3/6/2018					0.0162	<0.005			
3/15/2018							1.3		
5/1/2018					0.015	0.0125 (D)	1.4		
6/27/2018	0.0093 (J)	0.0069 (J)		<0.005		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				<0.005		0.0014 (J)	1.5		
12/20/2018	0.0081 (J)				0.069			<0.005	
1/16/2019							1.4		
1/17/2019								<0.005	
2/13/2019								<0.005	
8/27/2019			0.0014 (J)	<0.005					
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	<0.005	
10/17/2019	0.011 (J)		<0.005	<0.005	0.0098 (J)				
12/3/2019					0.0076				
12/4/2019	0.0086		0.0012 (J)	<0.005					
3/4/2020	0.008	0.007				0.0011 (J)	1.5	<0.005	
3/5/2020			0.0011 (J)	<0.005	0.0091				
8/19/2020	0.0078	0.0065	0.0008 (J)	<0.005					
8/20/2020					0.022	0.00043 (J)	1.4	<0.005	
9/15/2020		0.0064							
9/16/2020	0.008		0.0008 (J)	<0.005	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				<0.005			1.4	<0.005	
3/5/2021									0.0038 (J)
9/23/2021					0.0049 (J)	<0.005			
9/27/2021							1.3		
9/28/2021	0.0047 (J)	0.0069	0.001 (J)	<0.005				<0.005	0.2

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

	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	0.00041 (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	<0.005			0.055	0.39	3.5	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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				0.351 (U)	1 (U)	0.62 (U)	0.603 (U)		
9/1/2016	0.428 (U)	0.566 (U)						1.33	
9/6/2016			0.585 (U)						
9/8/2016									0.862 (U)
11/15/2016							0.645 (U)	0.412 (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)						1.2 (U)
2/20/2017						0.534 (U)	1.36	0.633 (U)	
2/21/2017	1.75 (U)	0.318 (U)	0.595 (U)	1.01 (U)	0.96 (U)				1.31
6/12/2017				0.532 (U)		0.254 (U)	0.566 (U)	0.112 (U)	
6/13/2017		0.163 (U)	0.618 (U)		0.645 (U)				0.738 (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)	0.167 (U)	
9/27/2017									0.583 (U)
2/13/2018				0.176 (U)	1.01 (U)	0.0914 (U)	0.349 (U)	0.347 (U)	
2/14/2018	1.13 (UX)	0.537 (U)	1.2 (U)						1.41 (J+X)
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)	0.903 (U)	0.968 (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)	0.353 (U)	1.13 (U)
8/27/2019	1.31	1.32		1.11	1.47	1.19	1.44	0.65 (U)	0.91 (U)
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)	0.402 (U)	1.06 (U)
3/3/2020	1.29 (U)	1.68		1.18 (U)	0.818 (U)	0.996 (U)	1.5	0.397 (U)	
3/4/2020			1.45						1.34
8/18/2020	0.988 (U)	0.969 (U)	0.784 (U)	0.0861 (U)	1.22 (U)	0.53 (U)	0.581 (U)	0.453 (U)	
8/19/2020									0.467 (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)	0.474 (U)	0.205 (U)
3/1/2021				0.127 (U)				0.215 (U)	
3/2/2021	0.901	0.925	1.12		0.342 (U)	0.409 (U)	0.362 (U)		0.161 (U)





# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S
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)	



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	<0.1	<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		
6/27/2018	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								<0.1	
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	<0.1	<0.1				<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

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	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	0.21	<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	



# Time Series

Constituent: Lead (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	<0.001	0.0004 (J)		<0.001					
11/18/2016	<0.001								
11/21/2016		0.0006 (J)	<0.001	<0.001					
2/21/2017	<0.001								
2/22/2017		0.0005 (J)	<0.001	<0.001					
6/13/2017	<0.001								
6/14/2017		0.0004 (J)	<0.001	<0.001					
9/27/2017	<0.001	0.0006 (J)	<0.001	<0.001					
2/14/2018	<0.001	<0.005 (o)	<0.001	<0.001					
3/6/2018					<0.001	<0.001			
3/15/2018							<0.001		
5/1/2018					<0.001	<0.001 (D)	<0.001		
6/27/2018	<0.001	0.00032 (J)		<0.001		<0.001			
6/28/2018			<0.001		<0.001		0.00054 (J)		
7/31/2018					<0.001				
8/1/2018						<0.001	<0.001		
8/10/2018								<0.001	
8/23/2018					<0.001	<0.001		<0.001	
9/19/2018					<0.001	<0.001		<0.001	
10/29/2018					<0.001	<0.001	0.0003 (J)	<0.001	
11/28/2018					<0.001	<0.001	<0.001	<0.001	
12/18/2018		0.00038 (J)	<0.001						
12/19/2018				<0.001		<0.001	<0.001		
12/20/2018	<0.001				<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	0.00027 (J)			<0.001	<0.001			
8/29/2019							4.9E-05 (J)	<0.001	
10/16/2019		0.00027 (J)				<0.001	8.5E-05 (J)	<0.001	
12/3/2019					<0.001				
12/4/2019	6.3E-05 (J)		<0.001	<0.001					
3/4/2020	<0.001	0.0003 (J)				0.00012 (J)	0.0001 (J)	<0.001	
3/5/2020			<0.001	<0.001	0.00026 (J)				
8/19/2020	<0.001	0.00025 (J)	<0.001	<0.001					
8/20/2020					0.00021 (J)	4.8E-05 (J)	6.7E-05 (J)	<0.001	
9/15/2020		0.00029 (J)							
9/16/2020	<0.001		0.00011 (J)	<0.001	5.3E-05 (J)	6.6E-05 (J)			
9/17/2020							0.00015 (J)	<0.001	
3/2/2021					<0.001	<0.001			
3/3/2021	<0.001	0.00033 (J)	<0.001						
3/4/2021				<0.001			0.00016 (J)	4.2E-05 (J)	
3/5/2021									5.6E-05 (J)
9/23/2021					<0.001	<0.001			
9/27/2021							<0.001		
9/28/2021	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
1/18/2019			<0.001				
1/19/2019		<0.001					
10/18/2019		<0.001	<0.001				
8/20/2020		<0.001	<0.001				
9/17/2020		0.00036 (J)	<0.001				
3/3/2021	0.00013 (J)		<0.001				
3/4/2021		0.00017 (J)					
9/27/2021		<0.001	<0.001				0.0019
9/28/2021	<0.001			<0.001	<0.001	<0.001	





# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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)		<0.03					
11/18/2016	<0.03								
11/21/2016		0.0039 (J)	0.0108 (J)	<0.03					
2/21/2017	<0.03								
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 (D)	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								<0.03	
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)

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	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)	<0.03				
8/20/2020		0.019 (J)	<0.03				
9/17/2020		0.021 (J)	<0.03				
3/3/2021	0.0093 (J)		<0.03				
3/4/2021		0.026 (J)					
9/27/2021		0.02 (J)	<0.03				0.0095 (J)
9/28/2021	0.0096 (J)			0.018 (J)	0.041	0.1	



# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	<0.01	<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	<0.01					
6/13/2017	<0.01								
6/14/2017		<0.01	<0.01	<0.01					
9/27/2017	<0.01	<0.01	<0.01	<0.01					
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)	0.0022 (J)		
6/27/2018	<0.01	<0.01		<0.01		<0.01			
6/28/2018			<0.01		<0.01		<0.01		
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	<0.01	0.0065 (J)	
11/28/2018					<0.01	<0.01	<0.01	0.0027 (J)	
12/18/2018		<0.01	<0.01						
12/19/2018				<0.01		<0.01	<0.01		
12/20/2018	<0.01				<0.01			<0.01	
1/16/2019							<0.01		
1/17/2019								<0.01	
2/13/2019								<0.01	
8/27/2019			<0.01	<0.01					
8/28/2019	<0.01	<0.01			<0.01	<0.01			
8/29/2019							<0.01	<0.01	
10/16/2019		<0.01				<0.01	<0.01	<0.01	
12/3/2019					<0.01				
12/4/2019	<0.01		<0.01	<0.01					
8/19/2020	<0.01	<0.01	0.00078 (J)	<0.01					
8/20/2020					0.00076 (J)	<0.01	<0.01	0.0012 (J)	
9/15/2020		<0.01							
9/16/2020	<0.01		0.0022 (J)	<0.01	<0.01	<0.01			
9/17/2020							<0.01	0.0007 (J)	
3/2/2021					<0.01	<0.01			
3/3/2021	<0.01	<0.01	<0.01						
3/4/2021				<0.01			<0.01	0.001 (J)	
3/5/2021									0.0017 (J)
9/23/2021					<0.01	<0.01			
9/27/2021							<0.01		
9/28/2021	<0.01	<0.01	0.001 (J)	<0.01				<0.01	0.0021 (J)

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
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			<0.01				
1/19/2019		<0.01					
10/18/2019		<0.01	<0.01				
8/20/2020		<0.01	<0.01				
9/17/2020		<0.01	<0.01				
3/3/2021	0.0068 (J)		<0.01				
3/4/2021		<0.01					
9/27/2021		<0.01	<0.01				<0.01
9/28/2021	0.0029 (J)			<0.01	<0.01	<0.01	





# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	



# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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)		<0.005					
11/18/2016	0.0047 (J)								
11/21/2016		0.0058 (J)	<0.005	<0.005					
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)	<0.005					
9/27/2017	0.004 (J)	0.0068 (J)	0.0034 (J)	0.0019 (J)					
2/14/2018	<0.005	<0.005	<0.005	<0.005					
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

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	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	<0.005		<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)	



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
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	



# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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	<0.001	<0.001		<0.001					
11/18/2016	<0.001								
11/21/2016		0.0002 (J)	<0.001	<0.001					
2/21/2017	<0.001								
2/22/2017		0.0002 (J)	<0.001	<0.001					
6/13/2017	<0.001								
6/14/2017		0.0002 (J)	<0.001	<0.001					
9/27/2017	<0.001	0.0002 (J)	<0.001	<0.001					
2/14/2018	<0.001	0.00018 (J)	<0.001	<0.001					
3/6/2018					<0.001	<0.001			
3/15/2018							<0.001		
5/1/2018					<0.001	<0.001 (D)	<0.001		
6/27/2018	<0.001	0.00017 (J)		<0.001		<0.001			
6/28/2018			<0.001		<0.001		<0.001		
7/31/2018					<0.001				
8/1/2018						<0.001	<0.001		
8/10/2018								<0.001	
8/23/2018					<0.001	<0.001		<0.001	
9/19/2018					<0.001	<0.001		<0.001	
10/29/2018					<0.001	<0.001	<0.001	<0.001	
11/28/2018					<0.001	<0.001	<0.001	<0.001	
12/18/2018		0.00017 (J)	<0.001						
12/19/2018				<0.001		<0.001	<0.001		
12/20/2018	<0.001				<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	0.00017 (J)			<0.001	<0.001			
8/29/2019							<0.001	<0.001	
10/16/2019		0.00017 (J)				<0.001	<0.001	<0.001	
12/3/2019					<0.001				
12/4/2019	<0.001		<0.001	<0.001					
3/4/2020	<0.001	0.00016 (J)				<0.001	<0.001	<0.001	
3/5/2020			<0.001	<0.001	<0.001				
8/19/2020	<0.001	0.00016 (J)	<0.001	<0.001					
8/20/2020					<0.001	<0.001	<0.001	<0.001	
9/15/2020		0.00016 (J)							
9/16/2020	<0.001		<0.001	<0.001	<0.001	<0.001			
9/17/2020							<0.001	<0.001	
3/2/2021					<0.001	<0.001			
3/3/2021	<0.001	0.00018 (J)	<0.001						
3/4/2021				<0.001			<0.001	<0.001	
3/5/2021									<0.001
9/23/2021					<0.001	<0.001			
9/27/2021							<0.001		
9/28/2021	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
1/18/2019			<0.001				
1/19/2019		<0.001					
10/18/2019		<0.001	<0.001				
8/20/2020		<0.001	<0.001				
9/17/2020		<0.001	<0.001				
3/3/2021	<0.001		<0.001				
3/4/2021		<0.001					
9/27/2021		<0.001	<0.001				<0.001
9/28/2021	<0.001			<0.001	<0.001	<0.001	



# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive

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

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2021 7:02 AM View: Descriptive  
Plant Branch Client: Southern Company Data: Plant Branch AP

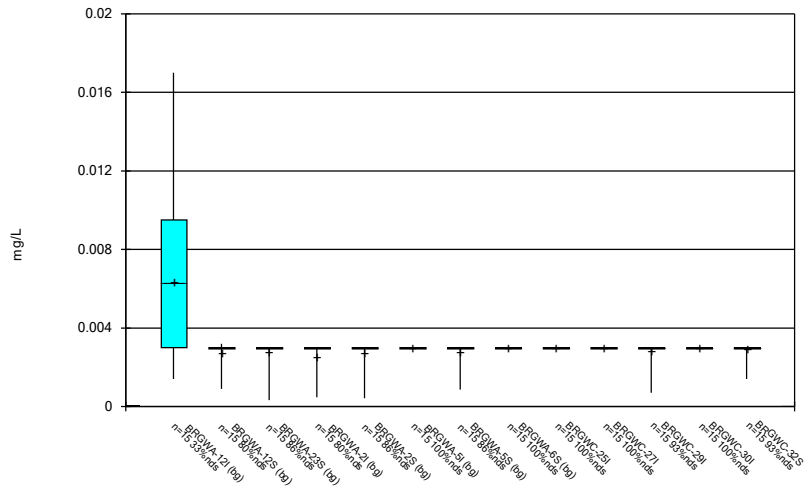
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	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
8/2/2018			123				
8/3/2018		1900					
1/18/2019			103				
1/19/2019		1660					
10/18/2019		1550	99				
9/17/2020		1600	101				
10/27/2020	680	1200					
3/3/2021	598		76				
3/4/2021		830					
9/27/2021		1560	88				2100
9/28/2021	650			542	1120	2600	

FIGURE B.

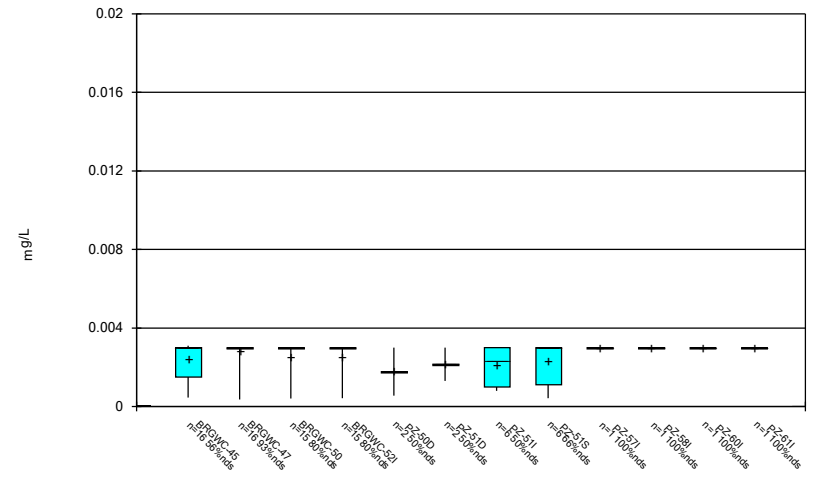


Box & Whiskers Plot



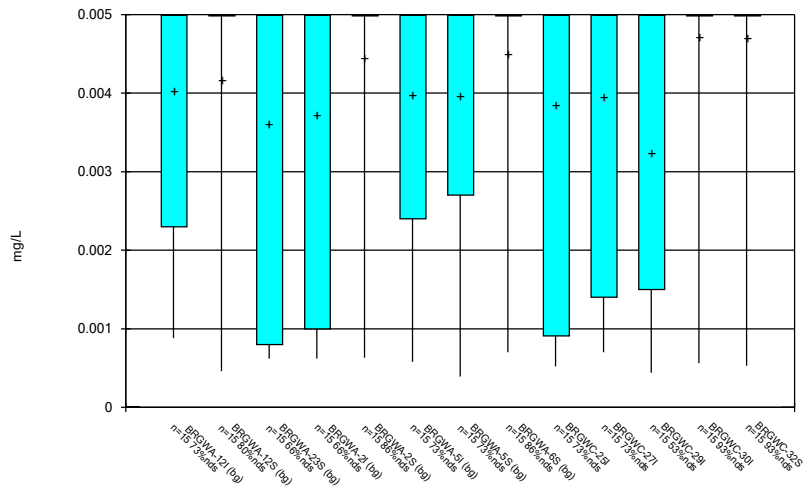
Constituent: Antimony Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



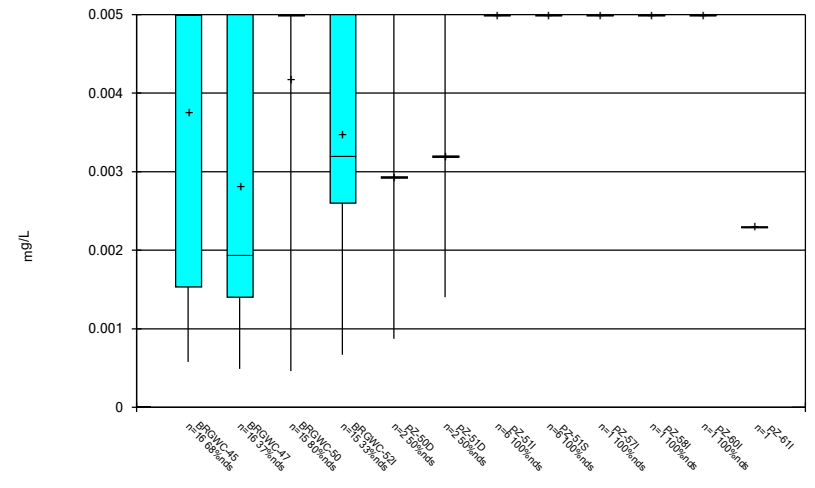
Constituent: Antimony Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



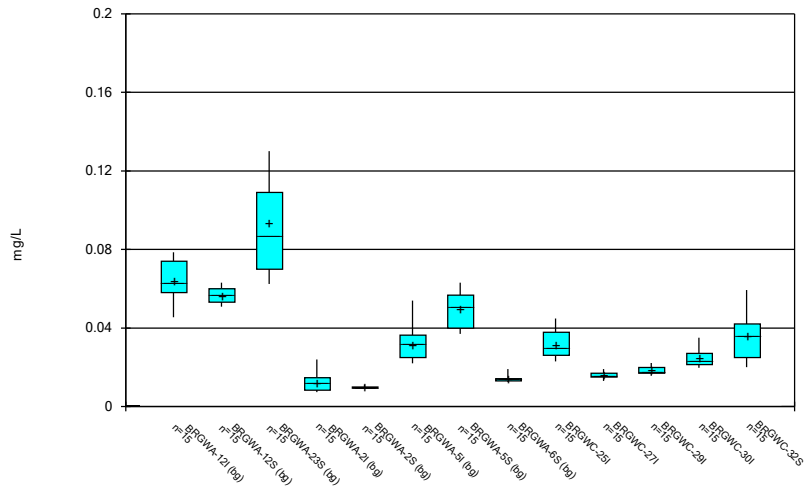
Constituent: Arsenic Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



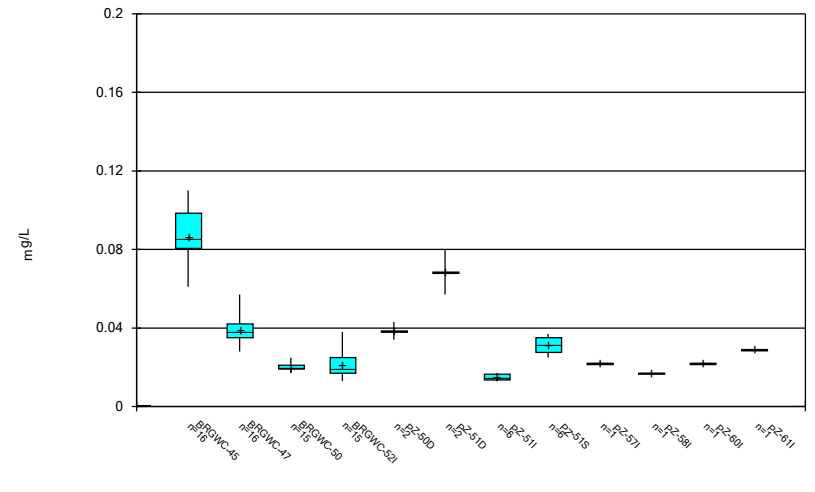
Constituent: Arsenic Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



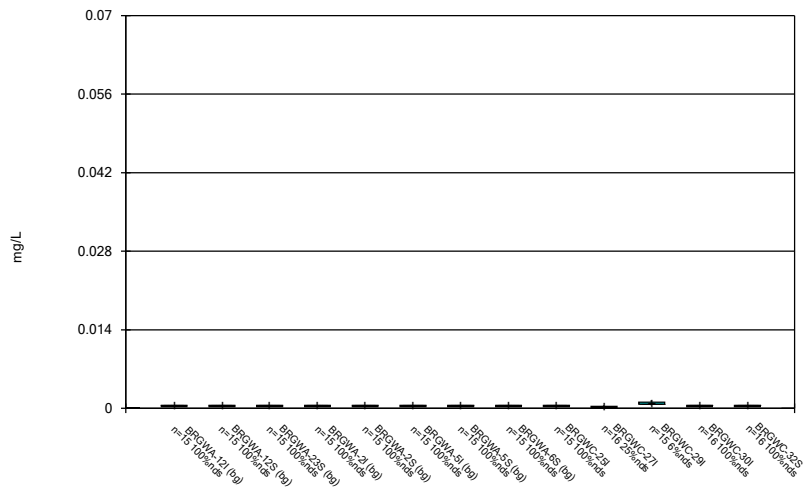
Constituent: Barium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



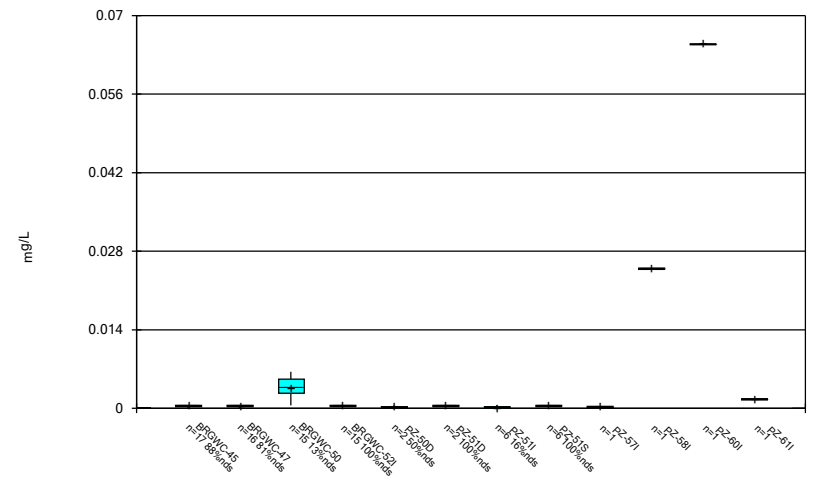
Constituent: Barium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



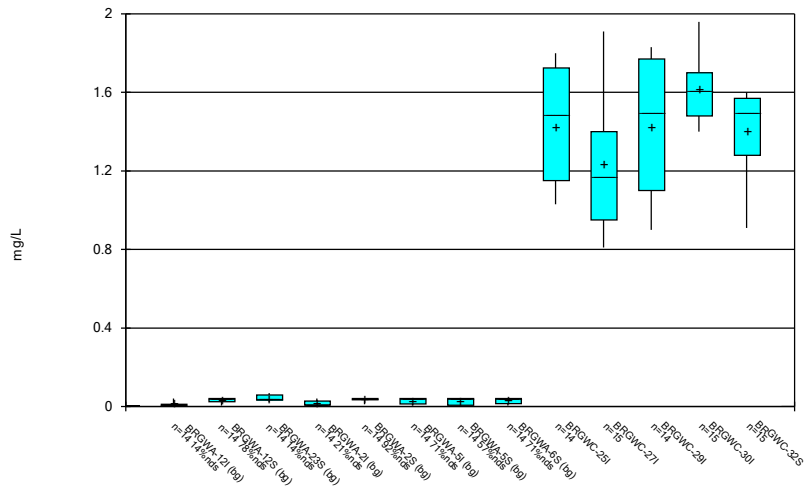
Constituent: Beryllium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



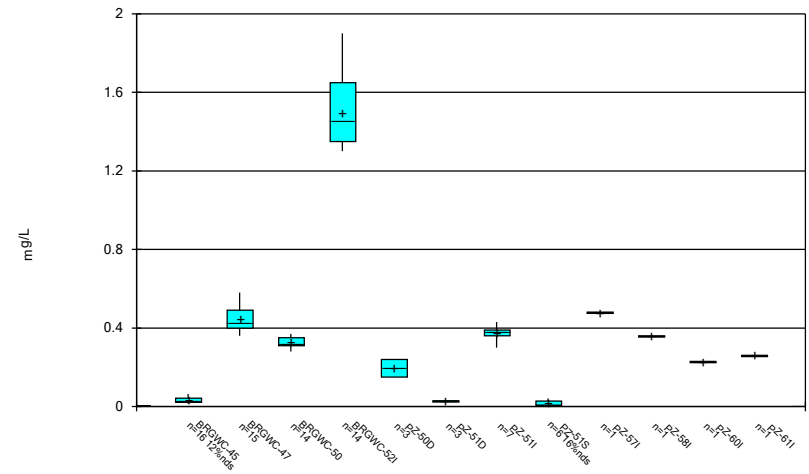
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



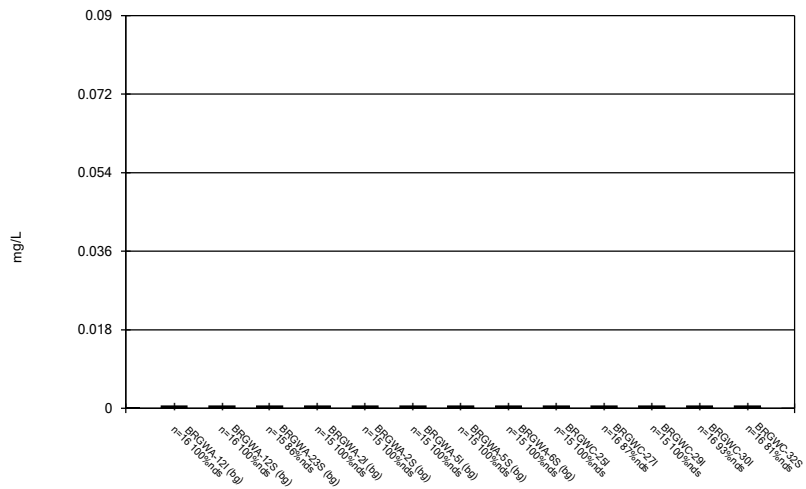
Constituent: Boron Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



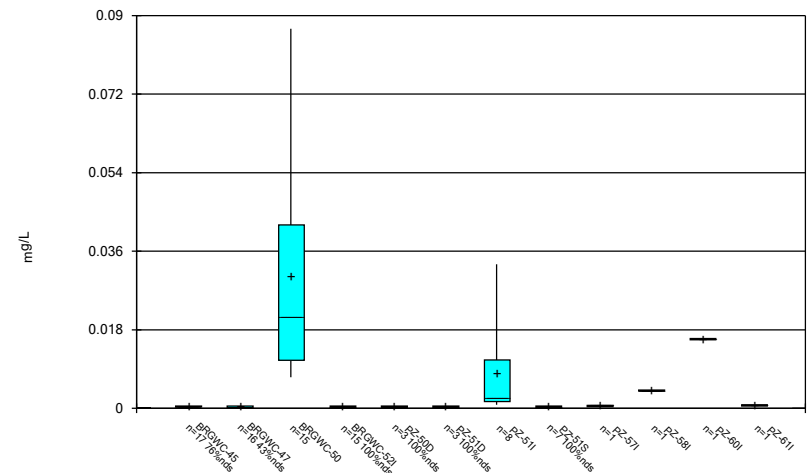
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Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



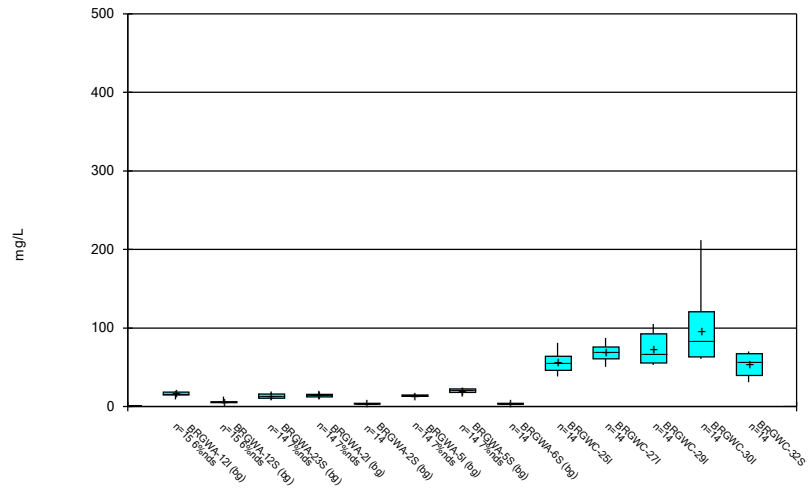
Constituent: Cadmium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



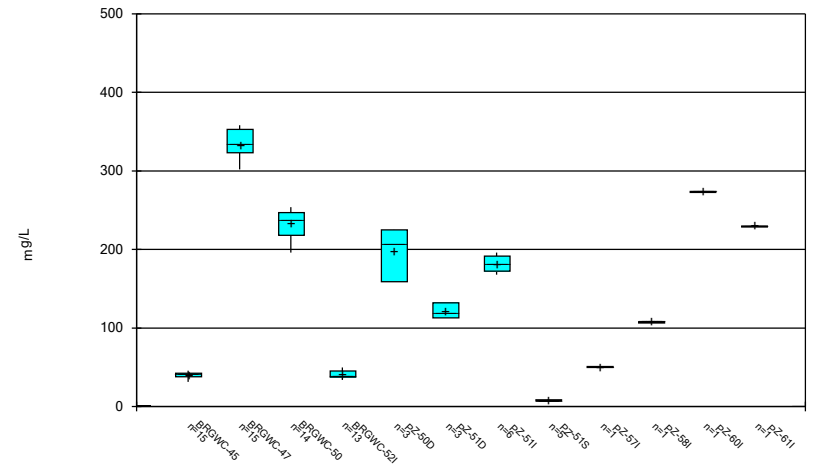
Constituent: Cadmium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



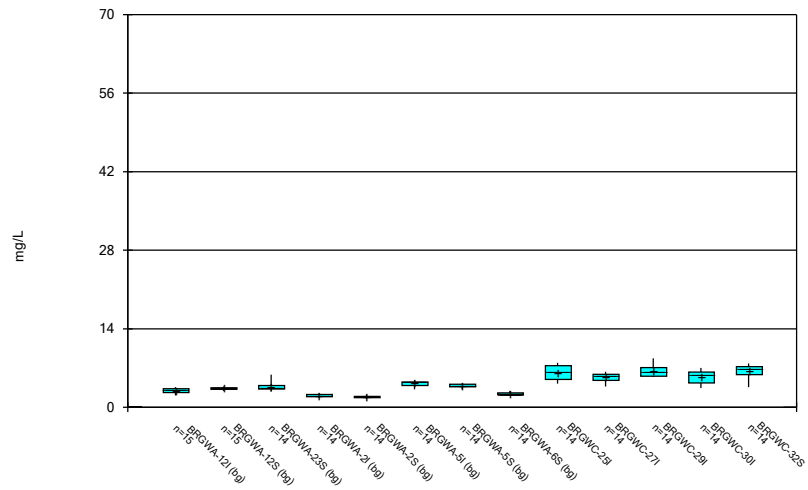
Constituent: Calcium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



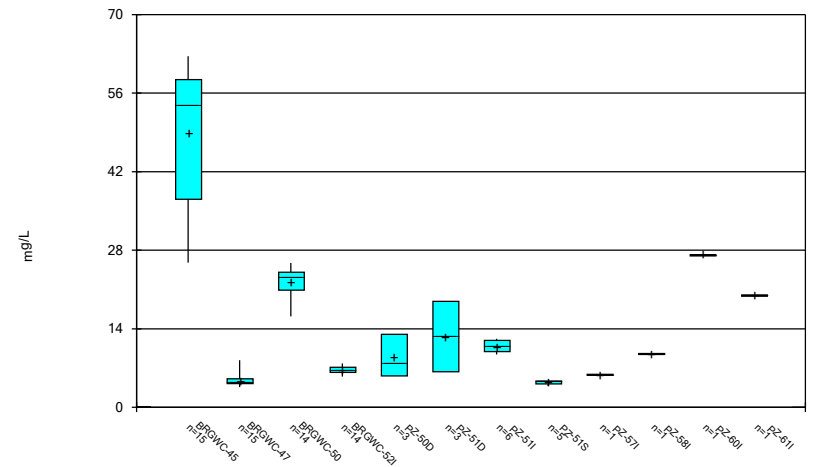
Constituent: Calcium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



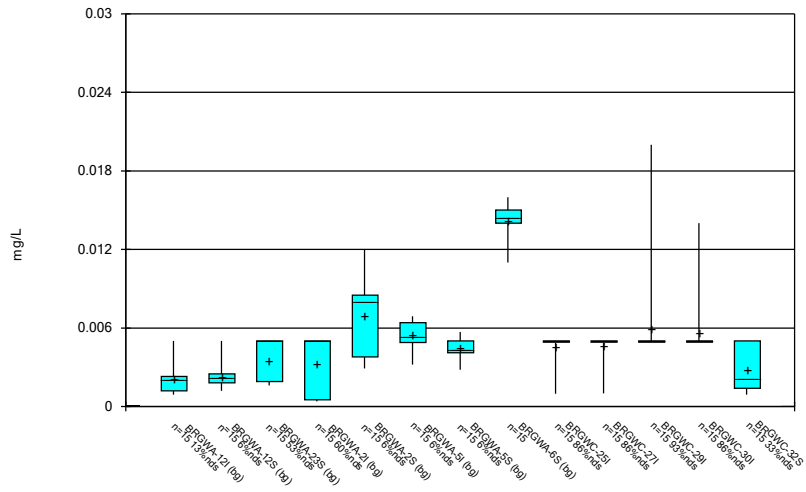
Constituent: Chloride Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



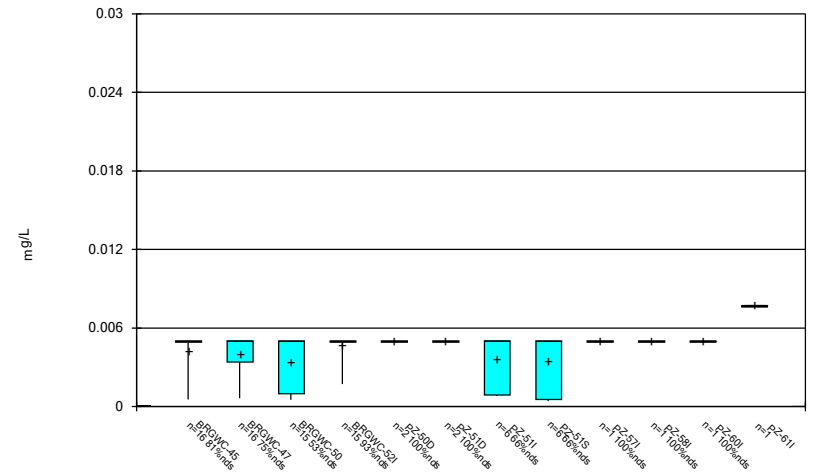
Constituent: Chloride Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



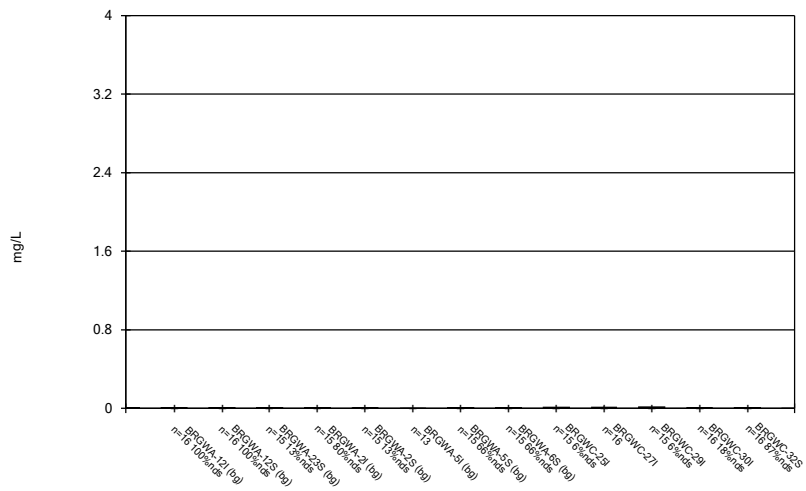
Constituent: Chromium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



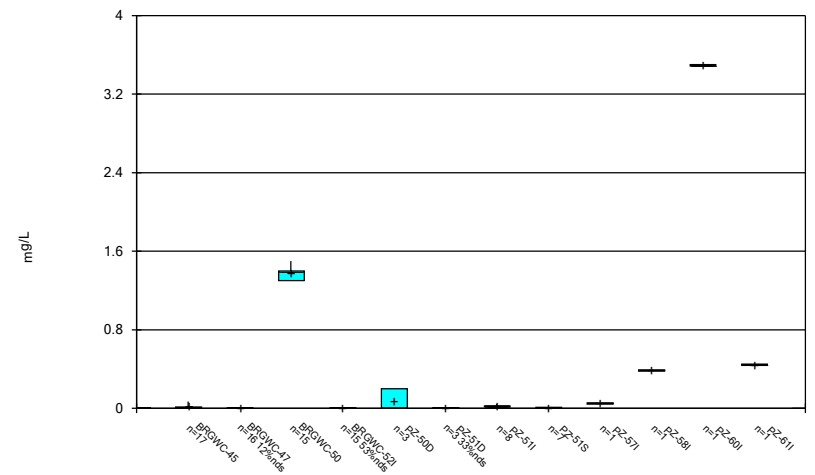
Constituent: Chromium Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



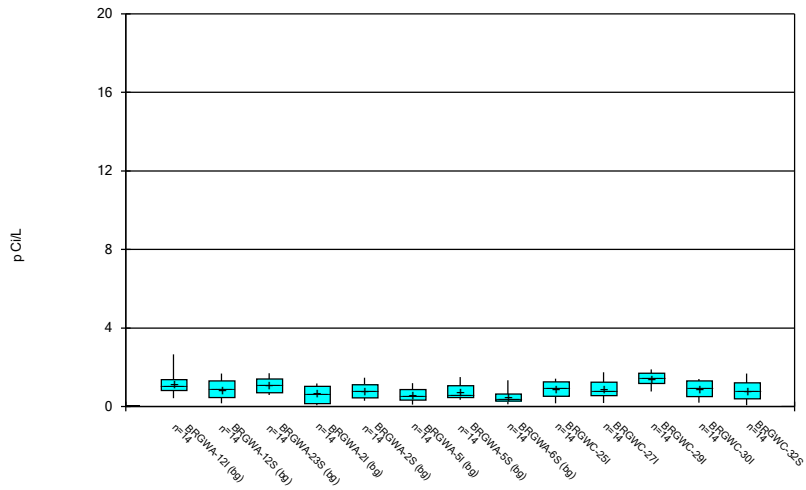
Constituent: Cobalt Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



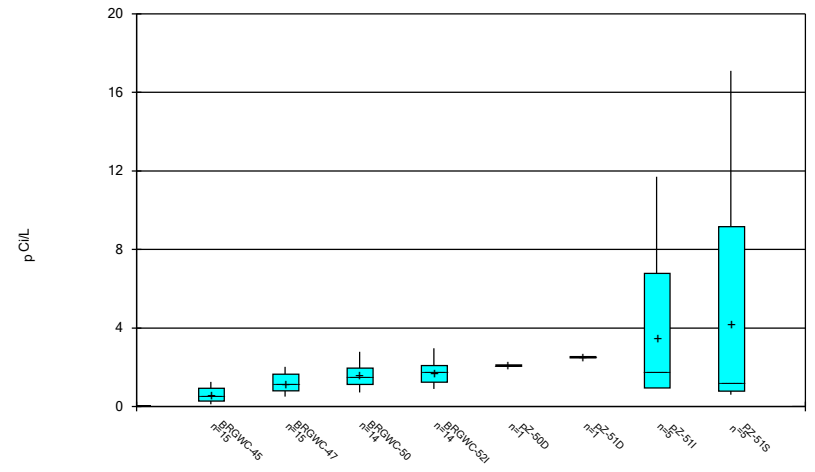
Constituent: Cobalt Analysis Run 11/5/2021 7:06 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



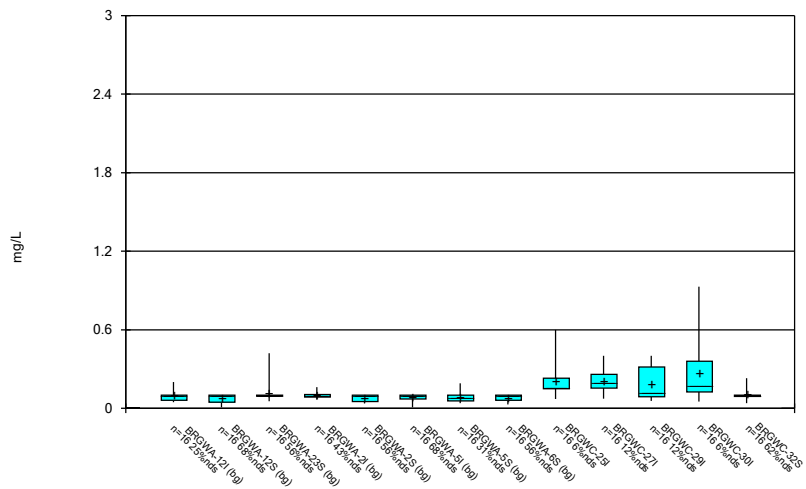
Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



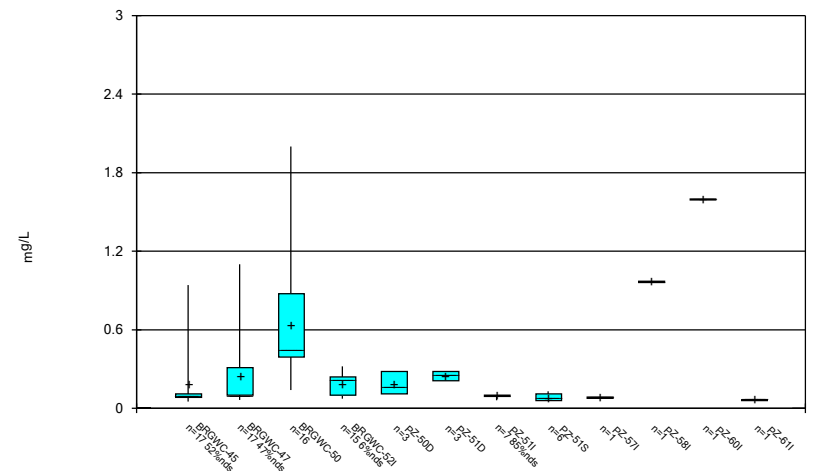
Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



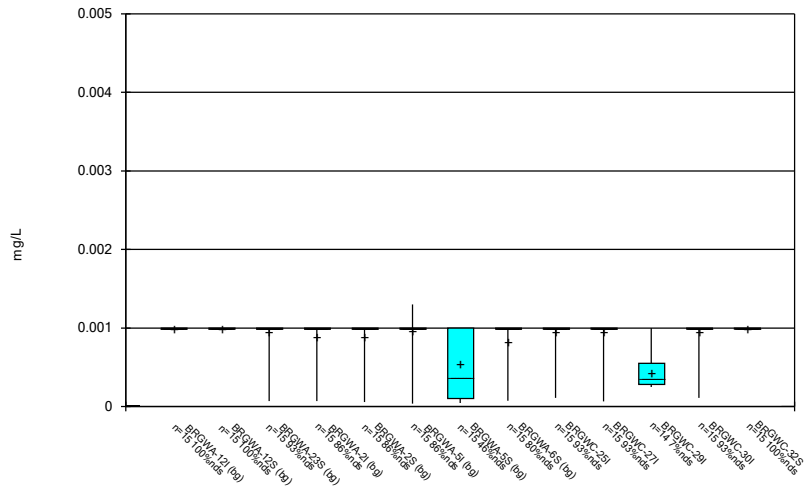
Constituent: Fluoride Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



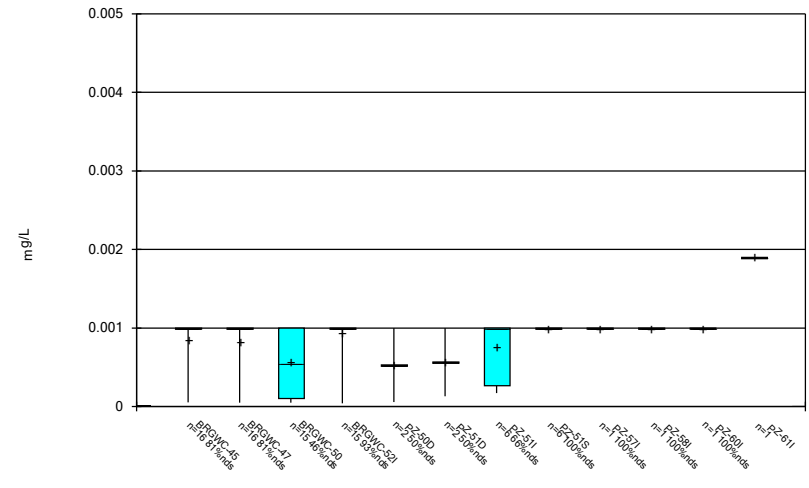
Constituent: Fluoride Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



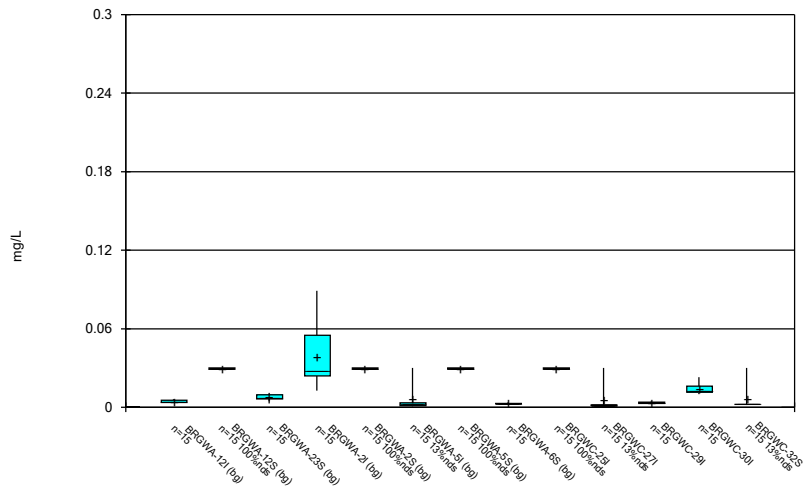
Constituent: Lead Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



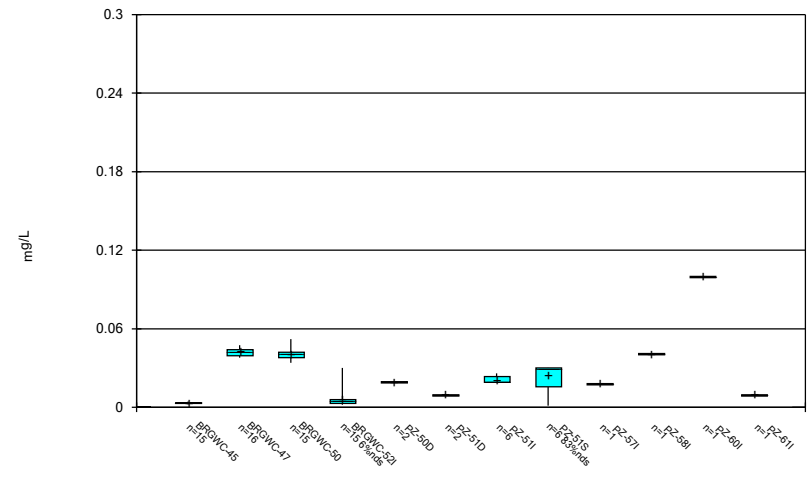
Constituent: Lead Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



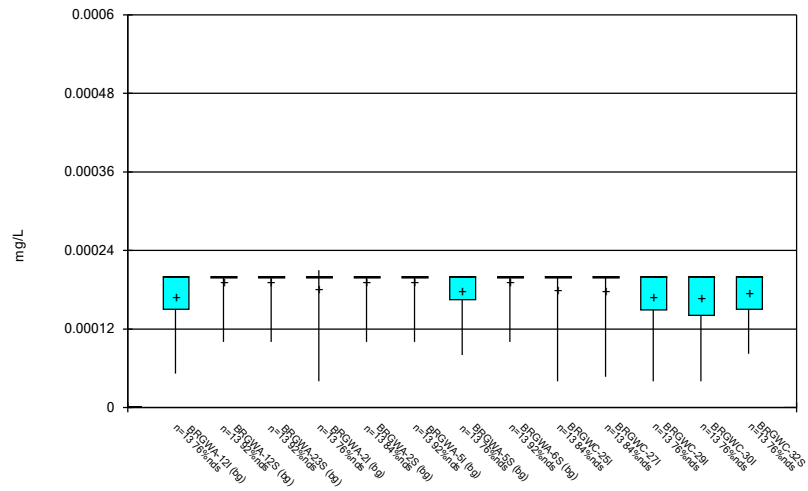
Constituent: Lithium Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



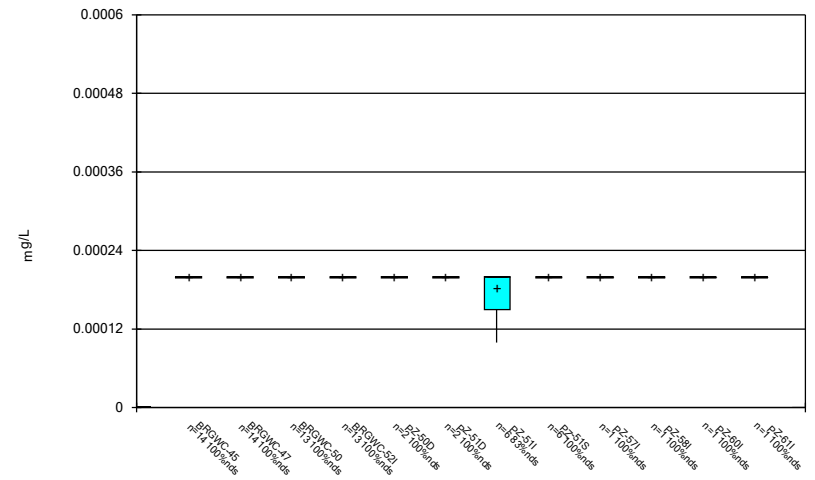
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



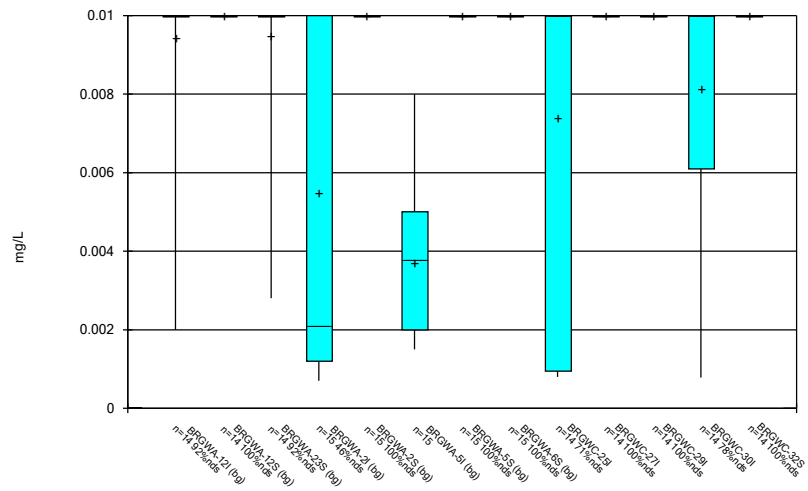
Constituent: Mercury Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



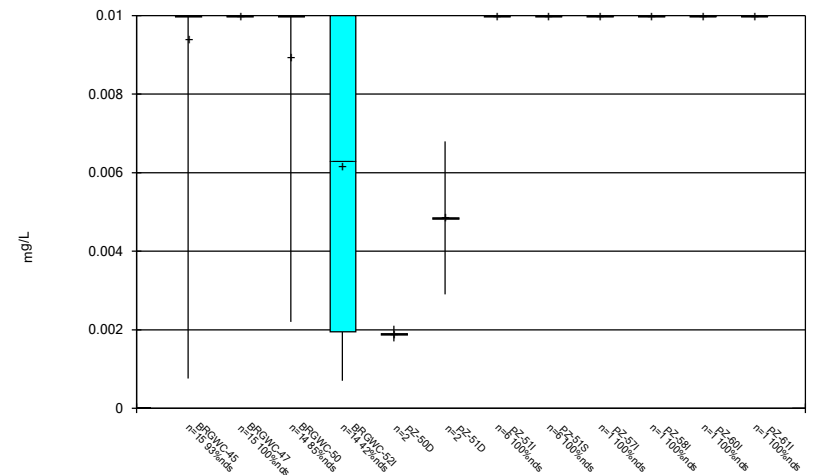
Constituent: Mercury Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

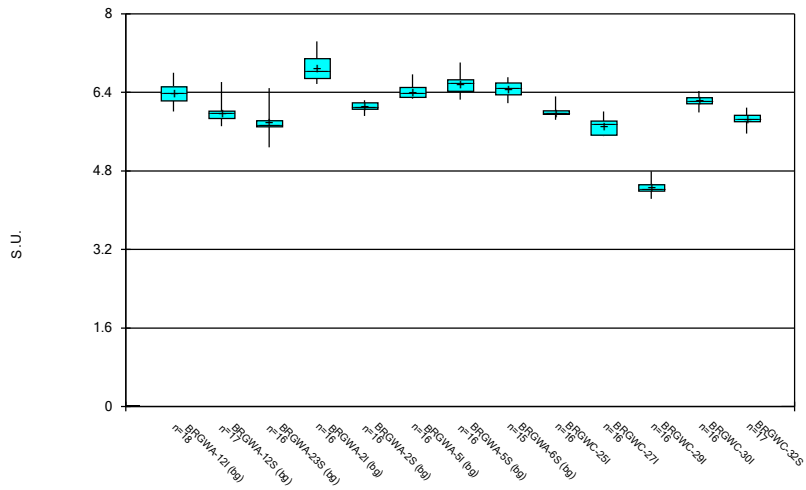
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
Plant Branch Client: Southern Company Data: Plant Branch AP

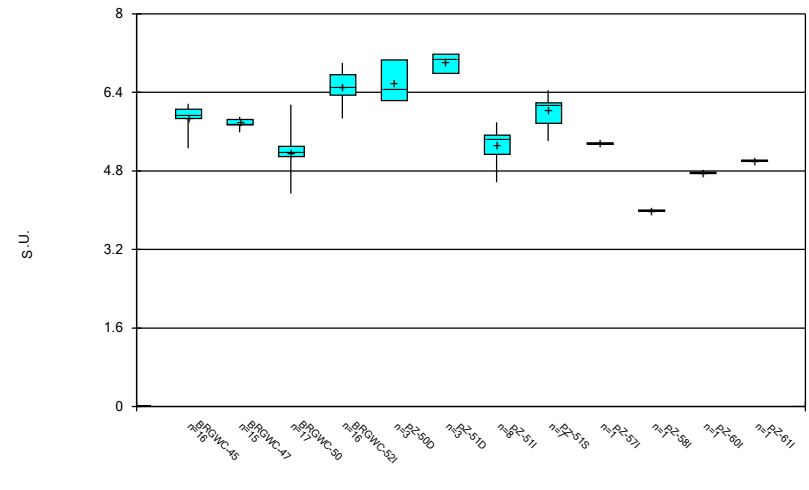


Box & Whiskers Plot



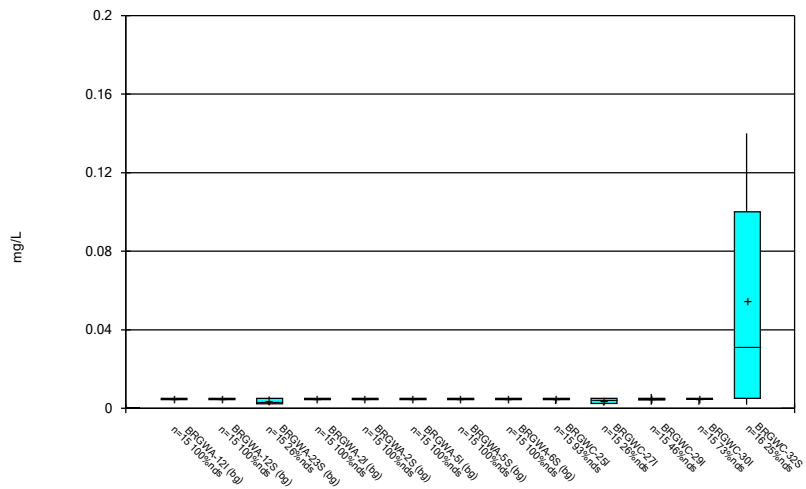
Constituent: pH, Field Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



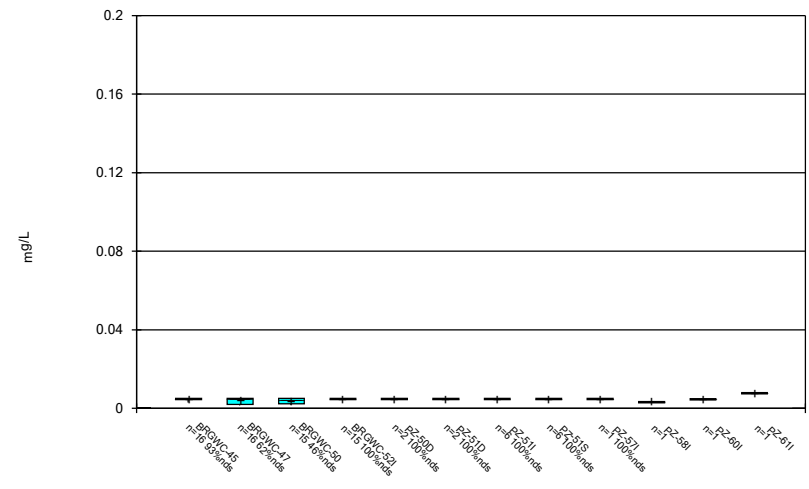
Constituent: pH, Field Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Selenium Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

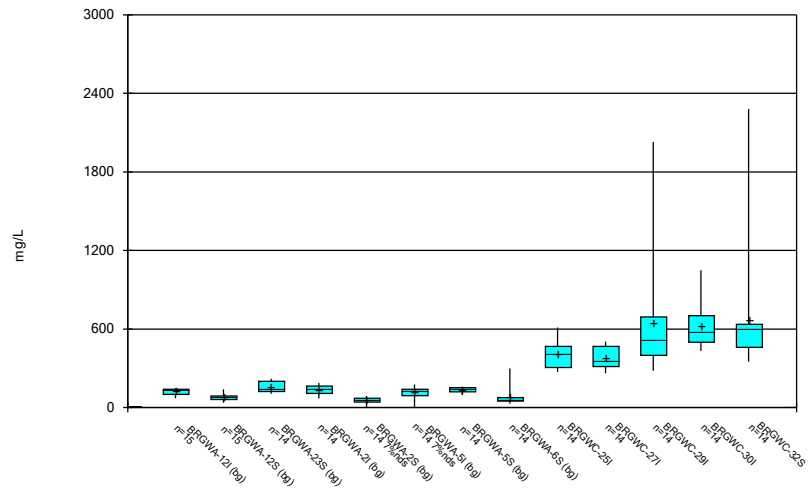
Box & Whiskers Plot



Constituent: Selenium Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

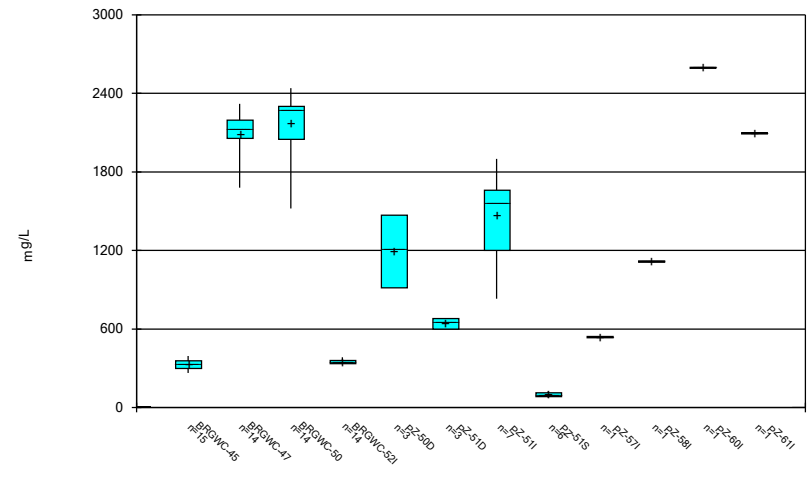


Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/5/2021 7:07 AM View: 100% NDs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE C.

# Outlier Summary

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/5/2021, 7:05 AM

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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			<0.001 (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.

# Interwell Prediction Limits - Significant Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/5/2021, 6:40 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-25I	0.068	n/a	9/28/2021	1.1	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	9/28/2021	0.95	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	9/28/2021	0.9	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	9/28/2021	1.7	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	9/28/2021	0.91	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	9/23/2021	0.47	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	9/27/2021	0.32	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	9/28/2021	1.4	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	9/28/2021	38.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	9/28/2021	50.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	9/28/2021	59.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	9/28/2021	212	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	9/28/2021	33.9	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	9/23/2021	32	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	9/23/2021	336	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	9/27/2021	196	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	9/28/2021	39.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	9/23/2021	29.3	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	9/27/2021	16.2	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	9/27/2021	0.43	Yes	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.057	5.592	9/28/2021	4.23	Yes	130	6.325	0.3803	0	None	No	0.0004179	Param Inter 1 of 2	
pH, Field (S.U.)	BRGWC-50	7.057	5.592	9/27/2021	5.05	Yes	130	6.325	0.3803	0	None	No	0.0004179	Param Inter 1 of 2	
Sulfate (mg/L)	BRGWC-25I	89	n/a	9/28/2021	112	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	9/28/2021	137	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	9/28/2021	250	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	9/28/2021	612	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	9/28/2021	189	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-45	89	n/a	9/23/2021	97.5	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-47	89	n/a	9/23/2021	1240	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-50	89	n/a	9/27/2021	1180	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-52I	89	n/a	9/28/2021	132	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-29I	299	n/a	9/28/2021	457	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-30I	299	n/a	9/28/2021	1050	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-32S	299	n/a	9/28/2021	375	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-47	299	n/a	9/23/2021	1770	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-50	299	n/a	9/27/2021	1800	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-52I	299	n/a	9/28/2021	336	Yes	114	n/a	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/5/2021, 6:40 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-25I	0.068	n/a	9/28/2021	1.1	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-27I	0.068	n/a	9/28/2021	0.95	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-29I	0.068	n/a	9/28/2021	0.9	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-30I	0.068	n/a	9/28/2021	1.7	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-32S	0.068	n/a	9/28/2021	0.91	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-45	0.068	n/a	9/23/2021	0.029J	No	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-47	0.068	n/a	9/23/2021	0.47	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-50	0.068	n/a	9/27/2021	0.32	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-52I	0.068	n/a	9/28/2021	1.4	Yes	112	n/a	n/a	n/a	52.68	n/a	n/a	0.0001579	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-25I	24	n/a	9/28/2021	38.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-27I	24	n/a	9/28/2021	50.4	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-29I	24	n/a	9/28/2021	59.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-30I	24	n/a	9/28/2021	212	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-32S	24	n/a	9/28/2021	33.9	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-45	24	n/a	9/23/2021	32	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-47	24	n/a	9/23/2021	336	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-50	24	n/a	9/27/2021	196	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-52I	24	n/a	9/28/2021	39.5	Yes	114	n/a	n/a	n/a	5.263	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-25I	5.8	n/a	9/28/2021	4.2	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-27I	5.8	n/a	9/28/2021	3.7	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-29I	5.8	n/a	9/28/2021	5.4	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-30I	5.8	n/a	9/28/2021	3.4	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-32S	5.8	n/a	9/28/2021	3.6	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-45	5.8	n/a	9/23/2021	29.3	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-47	5.8	n/a	9/23/2021	4.3	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-50	5.8	n/a	9/27/2021	16.2	Yes	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-52I	5.8	n/a	9/28/2021	5.5	No	114	n/a	n/a	n/a	0	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-25I	0.42	n/a	9/28/2021	0.15	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-27I	0.42	n/a	9/28/2021	0.16	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-29I	0.42	n/a	9/28/2021	0.081J	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-30I	0.42	n/a	9/28/2021	0.11	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-32S	0.42	n/a	9/28/2021	0.1ND	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-45	0.42	n/a	9/23/2021	0.06J	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-47	0.42	n/a	9/23/2021	0.1ND	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-50	0.42	n/a	9/27/2021	0.43	Yes	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-52I	0.42	n/a	9/28/2021	0.12	No	128	n/a	n/a	n/a	50.78	n/a	n/a	0.0001206	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-25I	7.057	5.592	9/28/2021	5.97	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-27I	7.057	5.592	9/28/2021	5.82	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-29I	7.057	5.592	9/28/2021	4.23	Yes	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-30I	7.057	5.592	9/28/2021	6.33	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-32S	7.057	5.592	9/28/2021	5.82	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-45	7.057	5.592	9/23/2021	5.95	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-47	7.057	5.592	9/23/2021	5.74	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-50	7.057	5.592	9/27/2021	5.05	Yes	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-52I	7.057	5.592	9/28/2021	6.81	No	130	6.325	0.3803	0	None	No	No	0.0004179	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-25I	89	n/a	9/28/2021	112	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-27I	89	n/a	9/28/2021	137	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-29I	89	n/a	9/28/2021	250	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-30I	89	n/a	9/28/2021	612	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-32S	89	n/a	9/28/2021	189	Yes	114	n/a	n/a	n/a	13.16	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2



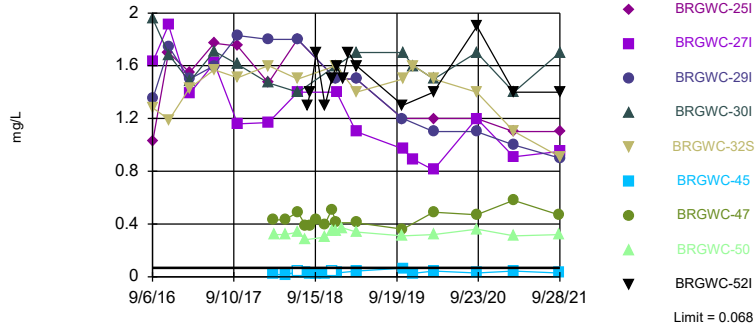
# Interwell Prediction Limits - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/5/2021, 6:40 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.NBg	Mean	Std.Dev.	%NDs	ND Adj.	Transform	Alpha	Method
<b>Sulfate (mg/L)</b>	<b>BRGWC-45</b>	<b>89</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>97.5</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>13.16</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-47</b>	<b>89</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>1240</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>13.16</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-50</b>	<b>89</b>	<b>n/a</b>	<b>9/27/2021</b>	<b>1180</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>13.16</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>BRGWC-52I</b>	<b>89</b>	<b>n/a</b>	<b>9/28/2021</b>	<b>132</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>13.16</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
Total Dissolved Solids (mg/L)	BRGWC-25I	299	n/a	9/28/2021	270	No	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-27I	299	n/a	9/28/2021	262	No	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-29I</b>	<b>299</b>	<b>n/a</b>	<b>9/28/2021</b>	<b>457</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>1.754</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-30I</b>	<b>299</b>	<b>n/a</b>	<b>9/28/2021</b>	<b>1050</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>1.754</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>299</b>	<b>n/a</b>	<b>9/28/2021</b>	<b>375</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>1.754</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
Total Dissolved Solids (mg/L)	BRGWC-45	299	n/a	9/23/2021	277	No	114	n/a	n/a	1.754	n/a	n/a	0.0001521	NP Inter (normality) 1 of 2
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-47</b>	<b>299</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>1770</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>1.754</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>299</b>	<b>n/a</b>	<b>9/27/2021</b>	<b>1800</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>1.754</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-52I</b>	<b>299</b>	<b>n/a</b>	<b>9/28/2021</b>	<b>336</b>	<b>Yes</b>	<b>114</b>	<b>n/a</b>	<b>n/a</b>	<b>1.754</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001521</b>	<b>NP Inter (normality) 1 of 2</b>

Exceeds Limit: BRGWC-25I, BRGWC-27I,  
BRGWC-29I, BRGWC-30I, BRGWC-32S,  
BRGWC-47, BRGWC-50, BRGWC-52I

Prediction Limit  
Interwell Non-parametric

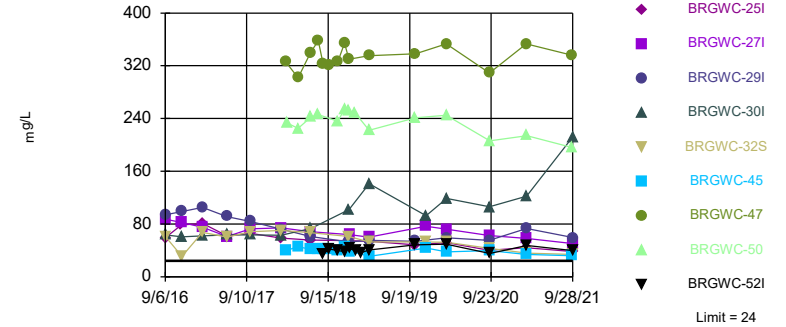


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 112 background values. 52.68% NDs. Annual per-constituent alpha = 0.002838. Individual comparison alpha = 0.0001579 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 11/5/2021 6:37 AM View: PLs Interwell  
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

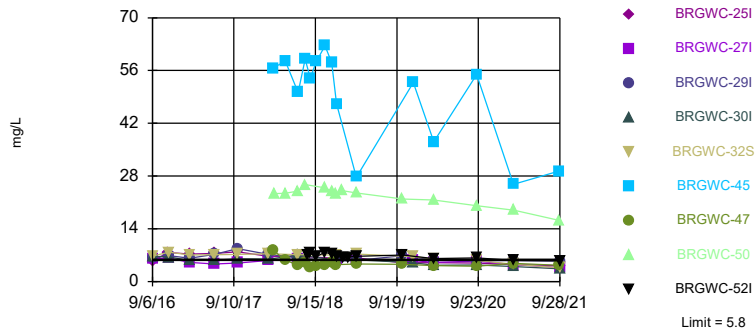


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 5.263% NDs. Annual per-constituent alpha = 0.002734. Individual comparison alpha = 0.0001521 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 11/5/2021 6:37 AM View: PLs Interwell  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-45, BRGWC-50

Prediction Limit  
Interwell Non-parametric

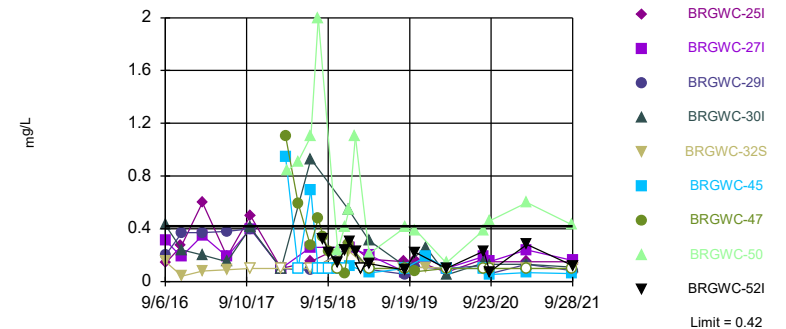


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. Annual per-constituent alpha = 0.002734. Individual comparison alpha = 0.0001521 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 11/5/2021 6:37 AM View: PLs Interwell  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-50

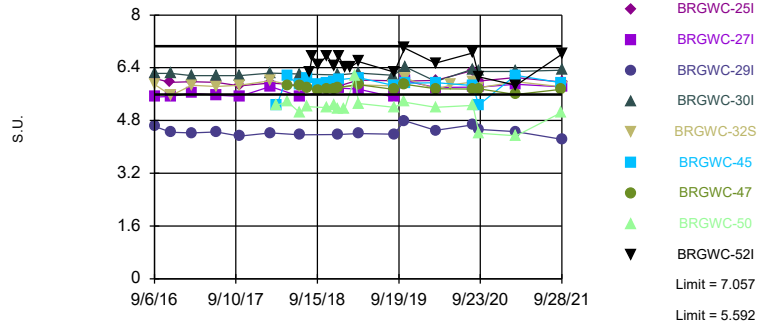
Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 128 background values. 50.78% NDs. Annual per-constituent alpha = 0.002169. Individual comparison alpha = 0.0001206 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 11/5/2021 6:37 AM View: PLs Interwell  
Plant Branch Client: Southern Company Data: Plant Branch AP

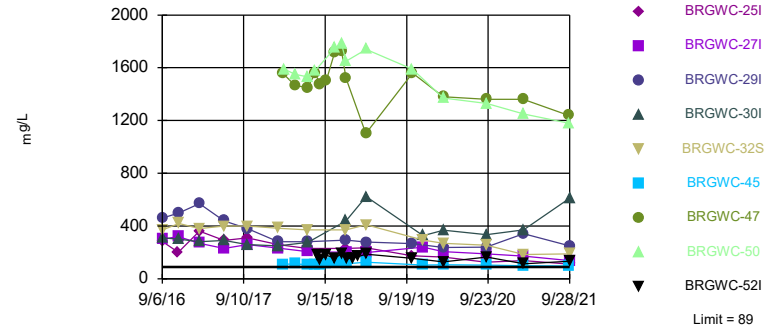
Exceeds Limits: BRGWC-291, BRGWC-50  
 Prediction Limit  
 Interwell Parametric



Background Data Summary: Mean=6.325, Std. Dev.=0.3803, n=130. Normality test: Chi Squared @alpha = 0.01, calculated = 5.538, critical = 14.07. Kappa = 1.926 (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 11/5/2021 6:37 AM View: PLs Interwell  
 Plant Branch Client: Southern Company Data: Plant Branch AP

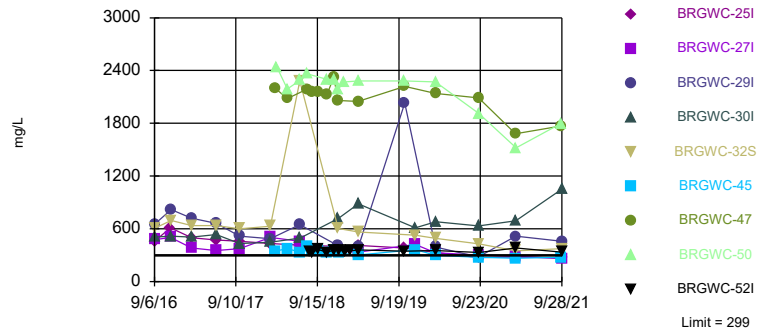
Exceeds Limit: BRGWC-251, BRGWC-271, BRGWC-291, BRGWC-301, BRGWC-32S, BRGWC-45, BRGWC-47, BRGWC-50, ...  
 Prediction Limit  
 Interwell Non-parametric



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 114 background values. 13.16% NDs. Annual per-constituent alpha = 0.002734. Individual comparison alpha = 0.0001521 (1 of 2). Comparing 9 points to limit.

Constituent: Sulfate Analysis Run 11/5/2021 6:37 AM View: PLs Interwell  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: 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 the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 1.754% NDs. Annual per-constituent alpha = 0.002734. Individual comparison alpha = 0.0001521 (1 of 2). Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 11/5/2021 6:37 AM View: PLs Interwell  
 Plant Branch Client: Southern Company Data: Plant Branch AP

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

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)	BRGWA-23S (bg)	BRGWC-30I
8/31/2016	<0.04	<0.04	<0.04	0.0072 (J)					
9/1/2016					0.0093 (J)	<0.04	<0.04		
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			<0.04	0.0088 (J)	0.0071 (J)		<0.04	0.0245 (J)	
2/22/2017									1.48
6/12/2017	<0.04	<0.04		0.0133 (J)		<0.04			
6/13/2017			<0.04				<0.04	<0.04	
6/14/2017					0.0078 (J)				1.71
9/26/2017	<0.04	<0.04	<0.04	0.0093 (J)	<0.04	<0.04	<0.04	<0.04	
9/27/2017									1.61
2/13/2018	<0.04	<0.04	<0.04	0.0141 (J)		<0.04			
2/14/2018					0.0068 (J)		<0.04	0.0314 (J)	1.47
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	0.0056 (J)	0.0042 (J)	<0.04	0.012 (J)	0.008 (J)	0.0041 (J)	<0.04	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)	<0.04	<0.04	0.0086 (J)	0.0083 (J)	<0.04	0.0053 (J)	0.055	1.6
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	<0.04	<0.04	<0.04	0.00565 (JD)	0.008 (J)	<0.04	<0.04	0.068	
3/20/2019									1.7
10/15/2019	0.006 (J)	<0.04	<0.04	0.0067 (J)	0.006 (J)	0.01 (J)	<0.04	0.022 (J)	
10/16/2019									
10/17/2019									1.7
12/3/2019									
12/4/2019									1.6
3/3/2020	<0.04	<0.04	<0.04	0.0082 (J)	0.01 (J)	<0.04	0.0065 (J)		
3/4/2020								0.044 (J)	
3/5/2020									1.5
9/15/2020	<0.04	<0.04	<0.04	<0.04	0.0071 (J)	<0.04	<0.04	0.033 (J)	
9/16/2020									1.7
9/17/2020									
3/1/2021				<0.04		<0.04			





# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-25I	BRGWC-47	BRGWC-45	BRGWC-50	BRGWC-52I
3/2/2021				1.1	0.58	0.044		
3/3/2021	0.91		1					
3/4/2021		1.1					0.31	1.4
9/21/2021								
9/22/2021								
9/23/2021					0.47	0.029 (J)		
9/27/2021							0.32	
9/28/2021	0.95	0.91	0.9	1.1				1.4

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	19.6	13.5	4.09	12.6					
9/1/2016					3.3	4.61	8.98		
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		4.17	15.4		
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		5	17.4		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	3.15	4.49	19.3		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)	3.3	6.4	15.5 (J)		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	19.8 (J)	16.4 (J)	3.8	14.5 (J)	3.5	5.5	18.7 (J)	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)	3.6	5.9	15.9 (J)		13.5 (J)
3/20/2019								141	
10/15/2019	20	14.4	3.7	15.1	3.5	6.2	15.9		8.6
10/16/2019									
12/3/2019									
12/4/2019								92.6	
3/3/2020	23.2	14.9	4	20	5	6.8	19.4		
3/4/2020									11.5
3/5/2020								119	
9/15/2020	16.8	12.7	3.9	14.1	3.7	5.7	14.5		10.7
9/16/2020								106	
9/17/2020									
3/1/2021				15.4	4.2				
3/2/2021	16.8	13.2	4			5.4	11.7		11.6





# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

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	87.2	93.9	60.5	59.4				
11/15/2016								
11/16/2016								
11/17/2016				78.4				
11/18/2016	82.4							
11/21/2016		99.1	31.1					
2/20/2017								
2/21/2017	75.1			80.9				
2/22/2017		105	67.3					
6/12/2017								
6/13/2017	61			62				
6/14/2017		91.3	60.2					
9/26/2017								
9/27/2017	72.6	84	68.4	65.8				
2/13/2018								
2/14/2018	74.1	72.1	70.2	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	61.1	67.1			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		55.4	52.8	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 11/5/2021 6:40 AM View: PLs Interwell  
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	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	59.5	33.9	38.4				39.5

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	3.6	4.4	2	2.3					
9/1/2016					2.5	3.5	3.3		
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	2.3	3.3	3.3		3.5
9/27/2017								6	
2/13/2018	4.1	4.7	1.7	2.1	2.3				
2/14/2018						3.5	3.1	5.9	3.8
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	4.1	4.5	2.2	2.4	2.6	3.4	3.4		3.8
6/27/2018									
6/28/2018								7 (J-X)	
7/31/2018						2.9	2.6		
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	2.3	2.9	2.8	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)	2.6	3.5	3.2		3.8
3/20/2019								5.8	
10/15/2019	3.7	4.2	1.9	2.2	2.4	3.4	3.1		3.5
10/16/2019									
12/3/2019									
12/4/2019								5	
3/3/2020	3.6	3.9	1.9	1.9	2.9	3.2	2.6		
3/4/2020									3.3
3/5/2020								4.3	
9/15/2020	3.7	3.7	1.7	1.9	2.3	3.5	2.4		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			3.7	2.6		3.5



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

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 (D)	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 11/5/2021 6:40 AM View: PLs Interwell  
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







# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-32S	BRGWC-25I	BRGWC-27I	BRGWC-29I	BRGWC-45	BRGWC-47	BRGWC-50	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	0.15 (J)	0.14 (J)	0.31	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		0.6	0.35					
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	0.5	0.4	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	<0.1		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					<0.1	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	<0.1	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		0.07 (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	<0.1	0.17	0.19	0.12				

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-32S	BRGWC-25I	BRGWC-27I	BRGWC-29I	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			0.24	0.13				
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	<0.1	0.15	0.16	0.081 (J)				0.12





# Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-25I	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-50	BRGWC-45	BRGWC-47	BRGWC-52I
8/31/2016								
9/1/2016								
9/6/2016								
9/8/2016	6.07	5.51	5.89	4.62				
11/15/2016								
11/16/2016	5.96							
11/17/2016								
11/18/2016		5.53						
11/21/2016			5.56	4.44				
2/20/2017								
2/21/2017	5.98	5.63						
2/22/2017			5.87	4.42				
6/12/2017								
6/13/2017	5.96	5.57						
6/14/2017			5.83	4.45				
9/26/2017								
9/27/2017	5.85	5.53	5.87	4.33				
2/13/2018								
2/14/2018	5.94	5.83	6.01	4.42				
3/15/2018					5.26	5.26		
5/1/2018					5.38	6.14	5.85	
6/26/2018	5.87							
6/27/2018		5.53	5.83	4.37			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	5.84			4.38				
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	6.03		5.88	4.4	5.32	6.1		6.59
8/27/2019	6.01		5.85					
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	6.02	5.8		4.5	5.2		5.76	6.54
3/5/2020			5.74			5.95		
5/12/2020			5.88					
8/18/2020								
8/19/2020	6.32	5.81	5.97	4.67				

# Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-25I	BRGWC-27I	BRGWC-32S	BRGWC-29I	BRGWC-50	BRGWC-45	BRGWC-47	BRGWC-52I
8/20/2020					5.26	5.86	5.75	6.85
9/15/2020	6			4.53				
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	5.97	5.82	5.82	4.23				6.81

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	0.81 (J)	2.7	0.38 (J)	7.5					
9/1/2016					0.6 (J)	1.7	2.7		
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		1.2	3.6		
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		1.1	3		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	0.53 (J)	1.3	2.5		89
9/27/2017								260	
2/13/2018	<1	6.6	<1	4.7 (J)	<1				
2/14/2018						<1	2.1 (J)	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	0.54 (J)	0.84 (J)	2		84.2
6/27/2018									
6/28/2018								276	
7/31/2018						0.63 (J)	1.9		
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	0.39 (J)	0.66 (J)	2.1	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)	0.68 (J)	0.75 (J)	2.2		65
3/20/2019								623	
10/15/2019	0.68 (J)	3.8	0.47 (J)	5.2	0.48 (J)	0.61 (J)	1.9		30
10/16/2019									
12/3/2019									
12/4/2019								327	
3/3/2020	0.71 (J)	2.8	0.93 (J)	7.1	2.5	0.51 (J)	1.8		
3/4/2020									38.6
3/5/2020								369	
9/15/2020	<1	1.7	<1	5.9	<1	<1	1.7		41.5
9/16/2020								334	
9/17/2020									
3/1/2021				4.7	0.74 (J)				
3/2/2021	<1	2.2	<1			0.51 (J)	1.7		54





# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

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 11/5/2021 6:40 AM View: PLs Interwell  
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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-2I (bg)	BRGWA-6S (bg)	BRGWA-12S (bg)	BRGWA-12I (bg)	BRGWC-30I	BRGWA-23S (bg)
8/31/2016	154	138	88	151					
9/1/2016					299	69	142		
9/6/2016								505	146
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		37	71		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	29	68	149		160
9/27/2017								432	
2/13/2018	150	141	63	165	61				
2/14/2018						138	137	448	194
3/6/2018									
3/15/2018									
5/1/2018									
6/26/2018	154	133	71	188	71	90	142		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	147	138 (X)	78 (X)	145 (X)	70 (X)	85	135	715	208
12/19/2018									
12/20/2018									
1/16/2019									
1/17/2019									
2/13/2019									
3/19/2019	146	130	68	146.5 (D)	72	82 (JX)	132 (JX)		161 (JX)
3/20/2019								885	
10/15/2019	144	175	66	140	63	89	134		124
10/16/2019									
12/3/2019									
12/4/2019								612	
3/3/2020	130	<10	41	155	54	72	115		
3/4/2020									118
3/5/2020								681	
9/15/2020	116	100	69	116	79	60	95		109
9/16/2020								634	
9/17/2020									
3/1/2021				98	39				
3/2/2021	96	80	43			43	93		105



# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell  
 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	478	654	607	460				
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	518	601	457				
2/13/2018								
2/14/2018	503 (JX)	487	628	431				
3/6/2018					346	2200		
3/15/2018							2440	
5/1/2018					374	2080 (D)	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					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		401				
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	564	410.5 (D)	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	391		330		2140	2270	351
3/5/2020			489		297			
9/15/2020		281		272				
9/16/2020	301		428		275	2090		
9/17/2020							1910	329
3/1/2021								
3/2/2021				280	264	1680		

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2021 6:40 AM View: PLs Interwell  
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	288	515						
3/4/2021			350				1520	383
9/21/2021								
9/22/2021								
9/23/2021					277	1770		
9/27/2021							1800	
9/28/2021	262	457	375	270				336

FIGURE E.



# Appendix III Trend Test Summary - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/9/2021, 6:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWC-27I	-0.1605	-64	-53	Yes	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-29I	-0.1613	-50	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.177	51	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-25I	-6.149	-75	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-27I	-5.366	-55	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-30I	15.72	68	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-12I (bg)	-0.2227	-65	-53	Yes	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-50	-2.006	-51	-48	Yes	14	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-23S (bg)	-0.05938	-60	-58	Yes	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-2I (bg)	-0.1251	-70	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12I (bg)	-0.2564	-84	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-12S (bg)	-0.1826	-68	-53	Yes	15	13.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-25I	-41.43	-62	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-27I	-27.24	-70	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-29I	-51.5	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-32S	-41.84	-55	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-32S	-57.27	-64	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-50	-157.8	-51	-48	Yes	14	0	n/a	n/a	0.01	NP

# Appendix III Trend Test Summary - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/9/2021, 6:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-12I (bg)	-0.0003611	-12	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-12S (bg)	0	2	48	No	14	78.57	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-23S (bg)	0.001292	10	48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2I (bg)	0.002384	20	48	No	14	21.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	6	48	No	14	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	1	48	No	14	57.14	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	14	48	No	14	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-25I	-0.1154	-38	-48	No	14	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-27I</b>	<b>-0.1605</b>	<b>-64</b>	<b>-53</b>	<b>Yes</b>	<b>15</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>-0.1613</b>	<b>-50</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-30I	-0.004574	-15	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-32S	-0.01337	-14	-53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-47	0.02383	21	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-50	0	8	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-52I	0	9	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12I (bg)	0.199	10	53	No	15	6.667	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-12S (bg)	0.2536	26	53	No	15	6.667	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-23S (bg)	-1.151	-37	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	0.8266	46	48	No	14	7.143	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	0	1	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	-0.07521	-6	-48	No	14	7.143	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.4646	-20	-48	No	14	7.143	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWA-6S (bg)</b>	<b>0.177</b>	<b>51</b>	<b>48</b>	<b>Yes</b>	<b>14</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>-6.149</b>	<b>-75</b>	<b>-48</b>	<b>Yes</b>	<b>14</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>-5.366</b>	<b>-55</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-29I	-9.731	-47	-48	No	14	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-30I</b>	<b>15.72</b>	<b>68</b>	<b>48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-32S	-6.126	-43	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-45	-2.868	-44	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-47	5.19	21	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-50	-9.359	-25	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-52I	2.783	16	43	No	13	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2227</b>	<b>-65</b>	<b>-53</b>	<b>Yes</b>	<b>15</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	11	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-23S (bg)	-0.23	-42	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2I (bg)	-0.06183	-31	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-2S (bg)	-0.02852	-22	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5I (bg)	-0.2053	-44	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-5S (bg)	-0.06983	-25	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWA-6S (bg)	0	-12	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-45	-7.683	-47	-53	No	15	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BRGWC-50</b>	<b>-2.006</b>	<b>-51</b>	<b>-48</b>	<b>Yes</b>	<b>14</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)	-0.01393	-38	-58	No	16	25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-12S (bg)	0	49	58	No	16	68.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-23S (bg)	0	-27	-58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	0	-19	-58	No	16	43.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	35	58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	44	58	No	16	68.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	-0.007283	-34	-58	No	16	31.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0.003585	41	58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-50	-0.1283	-29	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12I (bg)	-0.0587	-42	-68	No	18	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-12S (bg)	-0.01934	-29	-63	No	17	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U.)</b>	<b>BRGWA-23S (bg)</b>	<b>-0.05938</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>

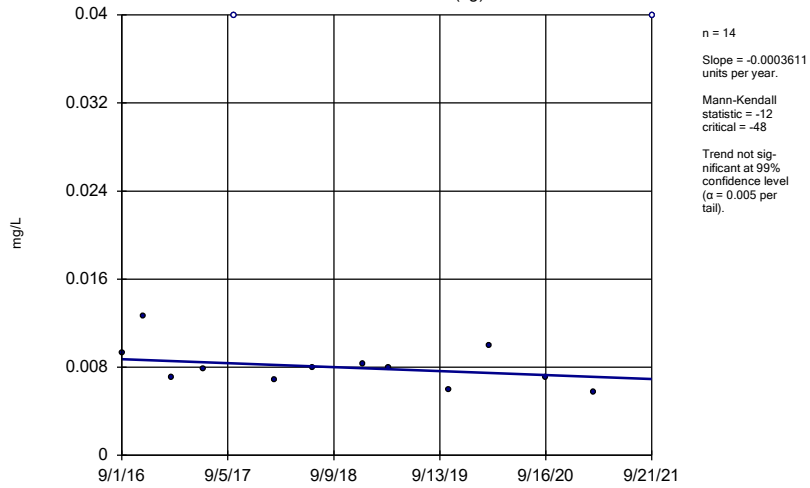
# Appendix III Trend Test Summary - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/9/2021, 6:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>pH, Field (S.U.)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.1251</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>
pH, Field (S.U.)	BRGWA-2S (bg)	-0.02883	-43	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5I (bg)	-0.02729	-28	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-5S (bg)	-0.0589	-55	-58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWA-6S (bg)	-0.006594	-6	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-29I	0.003679	3	58	No	16	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-50	-0.06992	-32	-63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWA-12I (bg)</b>	<b>-0.2564</b>	<b>-84</b>	<b>-53</b>	<b>Yes</b>	<b>15</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>-0.1826</b>	<b>-68</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>13.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWA-23S (bg)	-2.575	-19	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2I (bg)	-0.2487	-28	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-2S (bg)	0	3	48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5I (bg)	-0.3219	-27	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-5S (bg)	-0.08437	-40	-48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWA-6S (bg)	-0.01226	-14	-48	No	14	21.43	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-25I</b>	<b>-41.43</b>	<b>-62</b>	<b>-48</b>	<b>Yes</b>	<b>14</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>-27.24</b>	<b>-70</b>	<b>-48</b>	<b>Yes</b>	<b>14</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>-51.5</b>	<b>-59</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-30I	24.89	35	48	No	14	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>BRGWC-32S</b>	<b>-41.84</b>	<b>-55</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	BRGWC-45	-3.548	-38	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-47	-66.18	-33	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-50	-115.1	-31	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-52I	-14.1	-30	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12I (bg)	-5.087	-40	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-12S (bg)	-6.547	-29	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-23S (bg)	-11.77	-35	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2I (bg)	-4.927	-15	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-2S (bg)	0.8314	7	48	No	14	7.143	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5I (bg)	-7.713	-21	-48	No	14	7.143	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-5S (bg)	-7.968	-46	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWA-6S (bg)	-2.774	-10	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-29I	-74.57	-44	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-30I	62.57	45	48	No	14	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-32S</b>	<b>-57.27</b>	<b>-64</b>	<b>-48</b>	<b>Yes</b>	<b>14</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	-107.8	-38	-48	No	14	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids (mg/L)</b>	<b>BRGWC-50</b>	<b>-157.8</b>	<b>-51</b>	<b>-48</b>	<b>Yes</b>	<b>14</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	0.9481	3	48	No	14	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

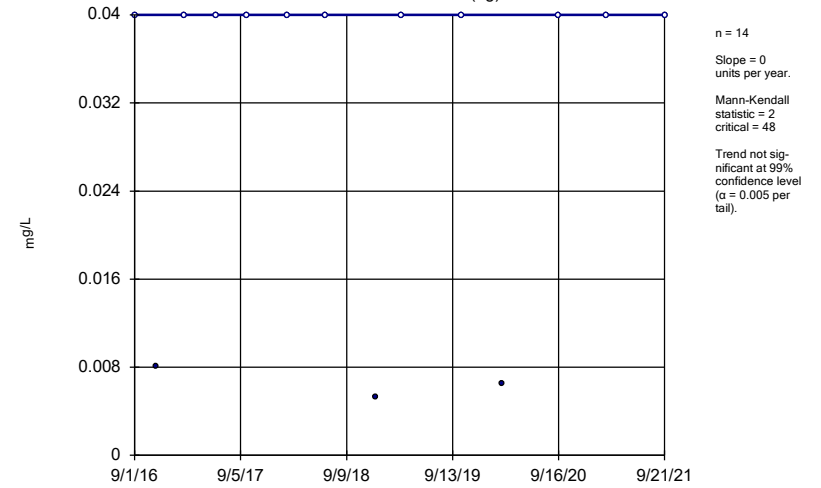
BRGWA-12I (bg)



Constituent: Boron Analysis Run 11/9/2021 6:34 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

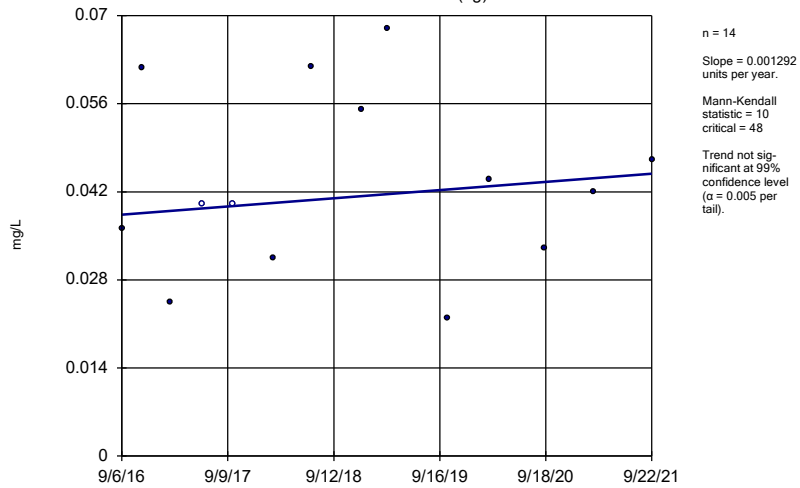
BRGWA-12S (bg)



Constituent: Boron Analysis Run 11/9/2021 6:34 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

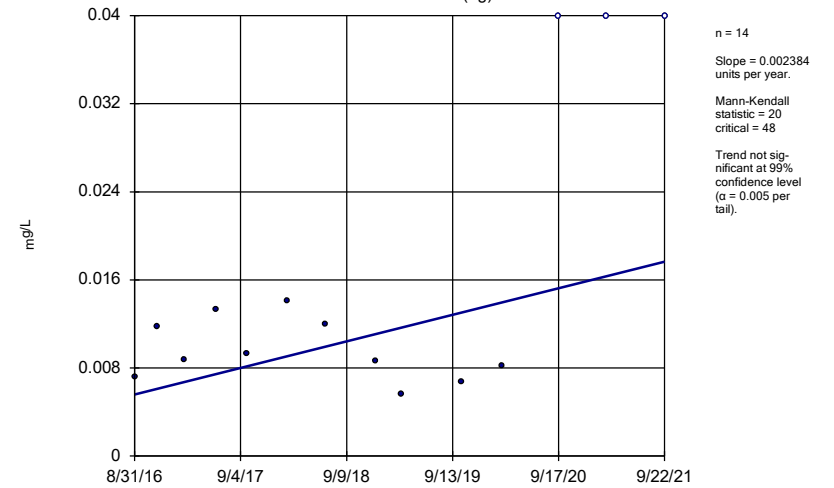
BRGWA-23S (bg)



Constituent: Boron Analysis Run 11/9/2021 6:34 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

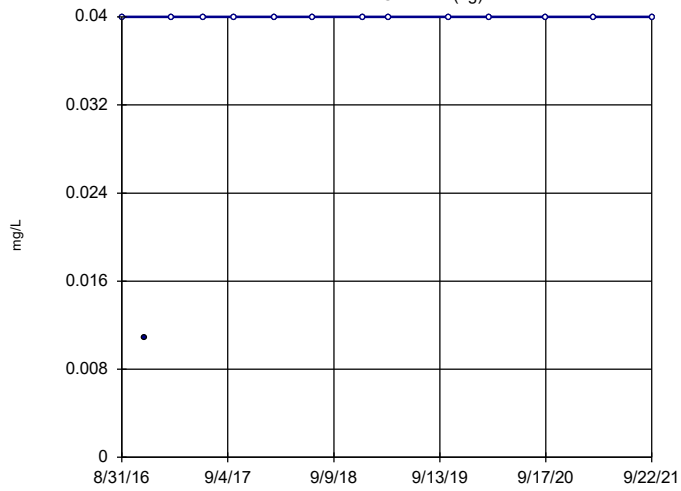
BRGWA-2I (bg)



Constituent: Boron Analysis Run 11/9/2021 6:34 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

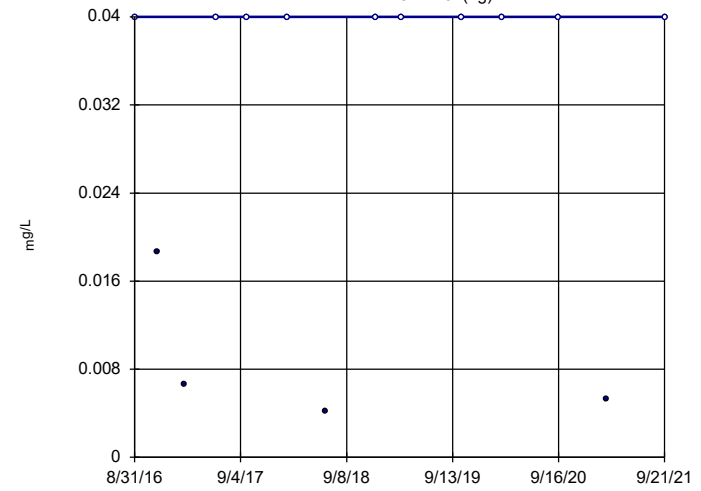
BRGWA-2S (bg)



Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

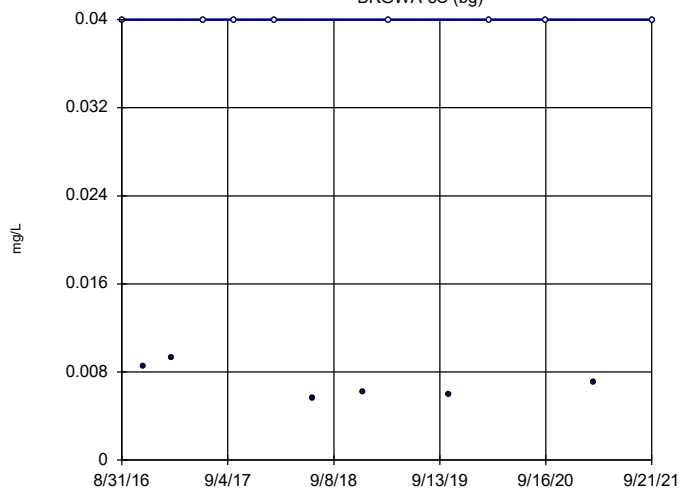
BRGWA-5I (bg)



Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

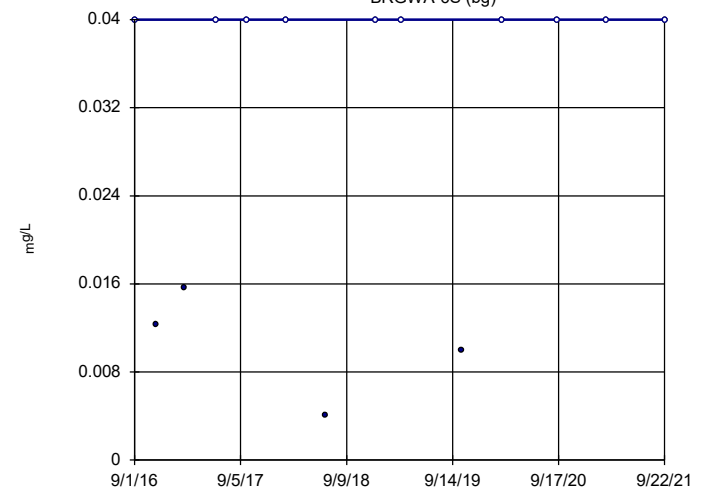
BRGWA-5S (bg)



Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

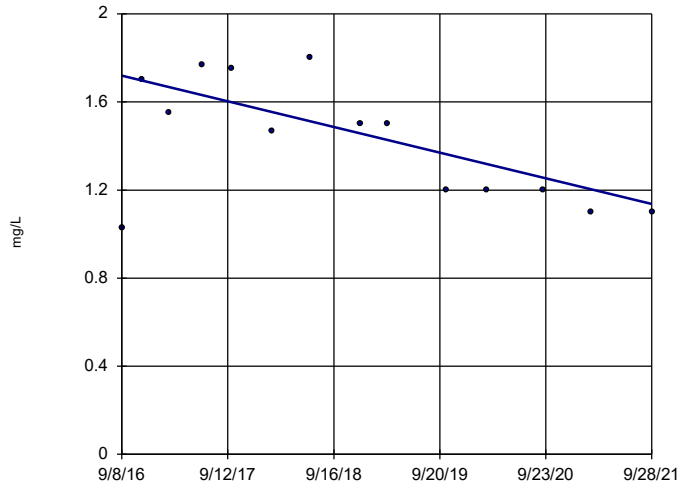
BRGWA-6S (bg)



Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-25I

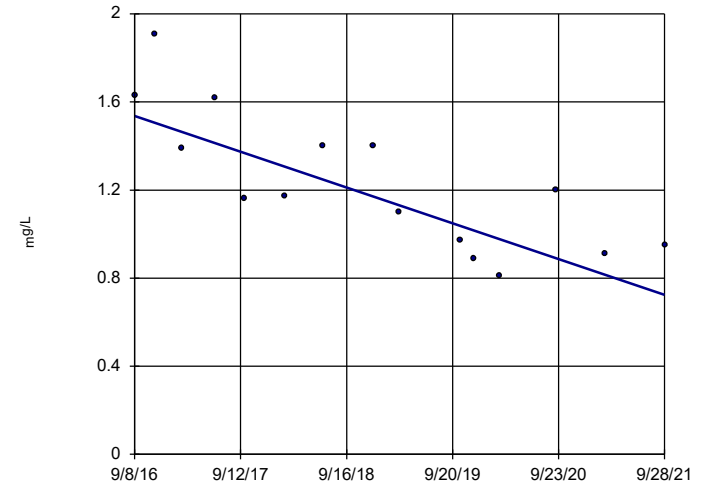


n = 14  
 Slope = -0.1154  
 units per year.  
 Mann-Kendall  
 statistic = -38  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-27I

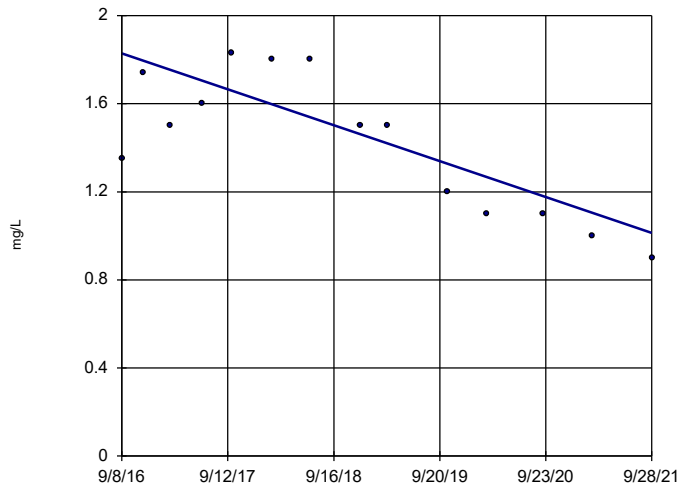


n = 15  
 Slope = -0.1605  
 units per year.  
 Mann-Kendall  
 statistic = -64  
 critical = -53  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-29I

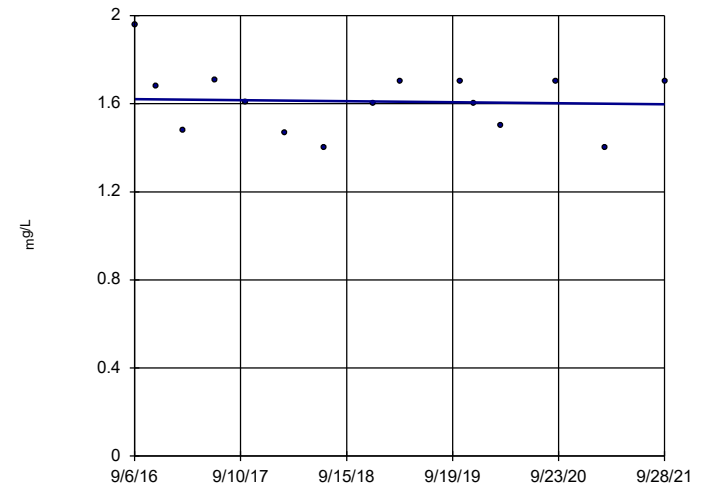


n = 14  
 Slope = -0.1613  
 units per year.  
 Mann-Kendall  
 statistic = -50  
 critical = -48  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

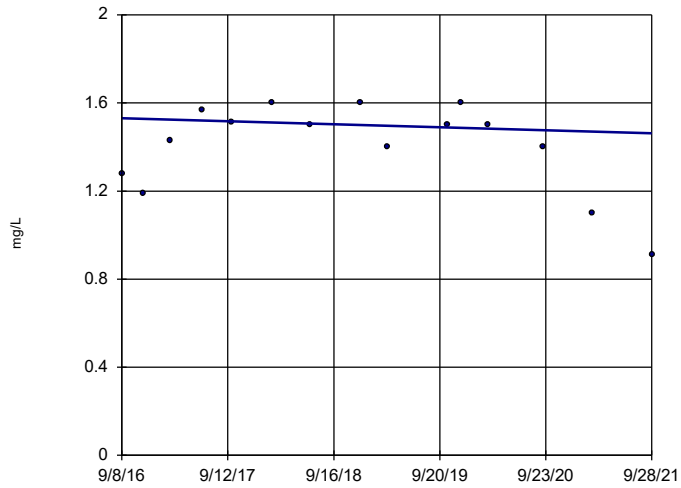
BRGWC-30I



n = 15  
 Slope = -0.004574  
 units per year.  
 Mann-Kendall  
 statistic = -15  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

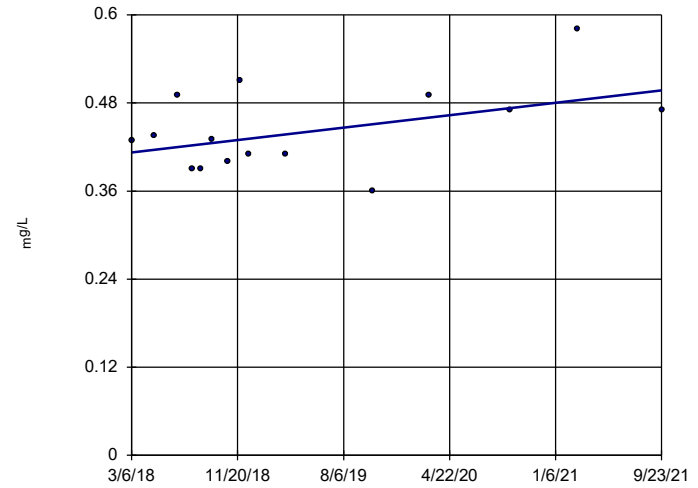
Sen's Slope Estimator  
BRGWC-32S



n = 15  
Slope = -0.01337 units per year.  
Mann-Kendall statistic = -14  
critical = -53  
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

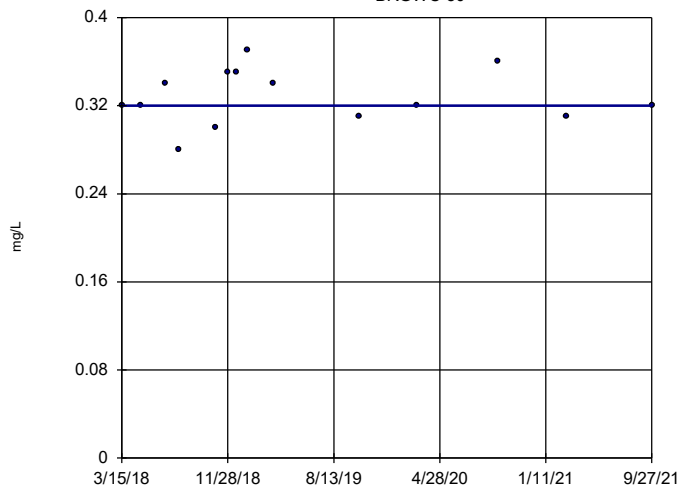
Sen's Slope Estimator  
BRGWC-47



n = 15  
Slope = 0.02383 units per year.  
Mann-Kendall statistic = 21  
critical = 53  
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

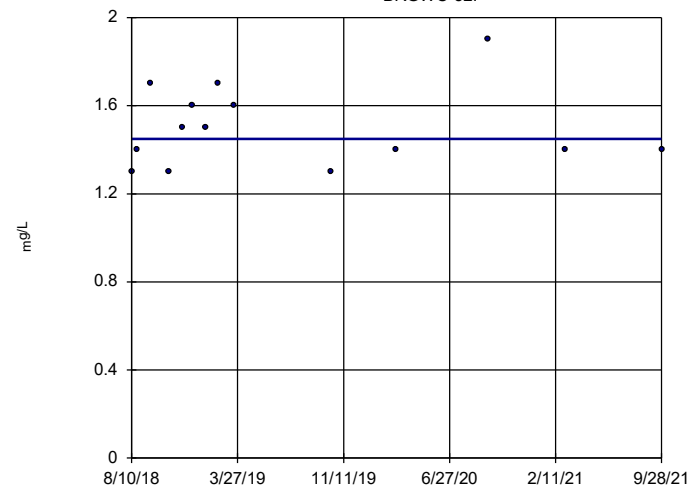
Sen's Slope Estimator  
BRGWC-50



n = 14  
Slope = 0 units per year.  
Mann-Kendall statistic = 8  
critical = 48  
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-52I

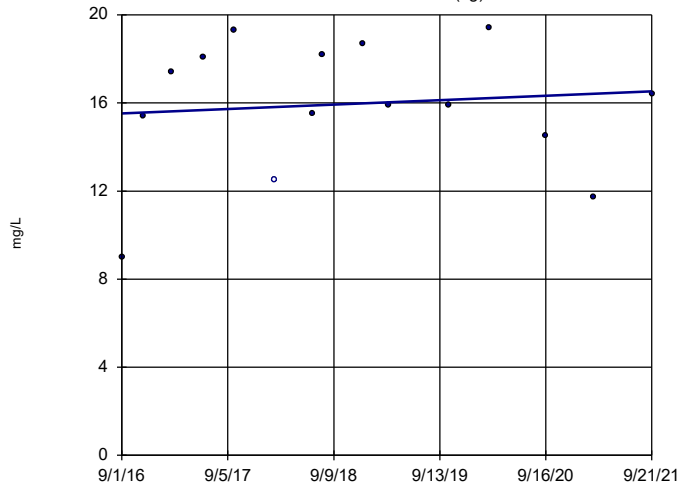


n = 14  
Slope = 0 units per year.  
Mann-Kendall statistic = 9  
critical = 48  
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLS  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12I (bg)

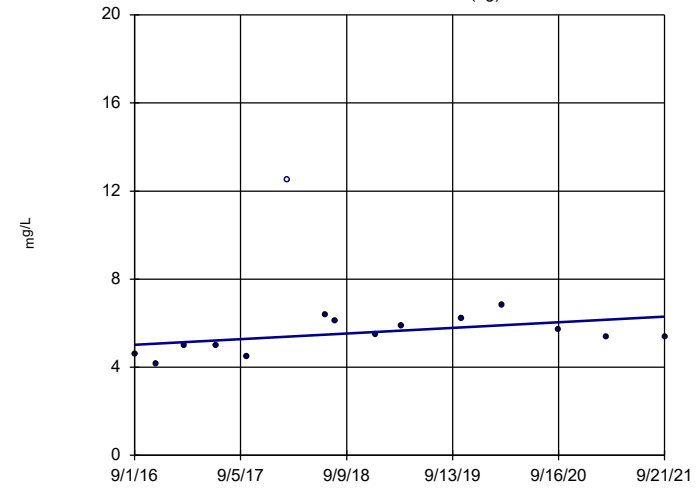


n = 15  
 Slope = 0.199  
 units per year.  
 Mann-Kendall  
 statistic = 10  
 critical = 53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

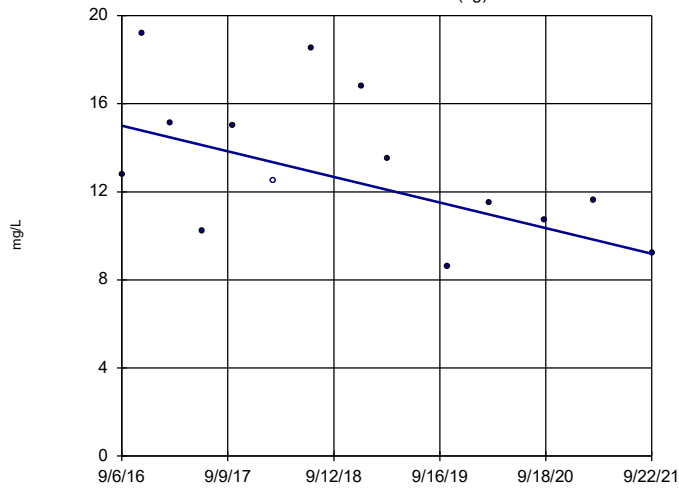


n = 15  
 Slope = 0.2536  
 units per year.  
 Mann-Kendall  
 statistic = 26  
 critical = 53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

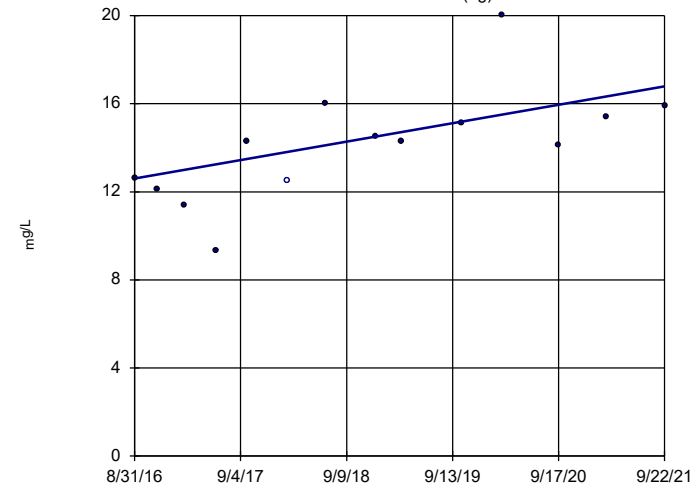


n = 14  
 Slope = -1.151  
 units per year.  
 Mann-Kendall  
 statistic = -37  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)



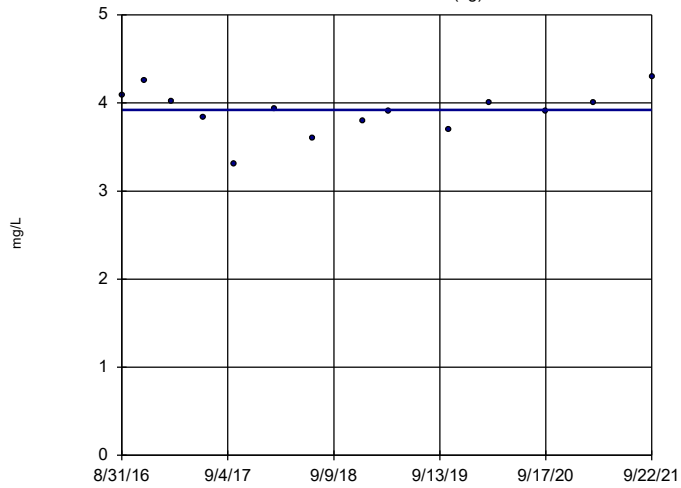
n = 14  
 Slope = 0.8266  
 units per year.  
 Mann-Kendall  
 statistic = 46  
 critical = 48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWA-2S (bg)



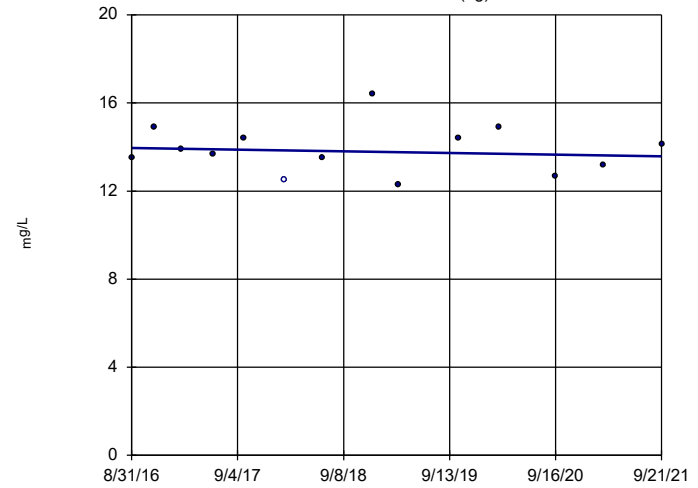
n = 14  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 1  
 critical = 48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-5I (bg)



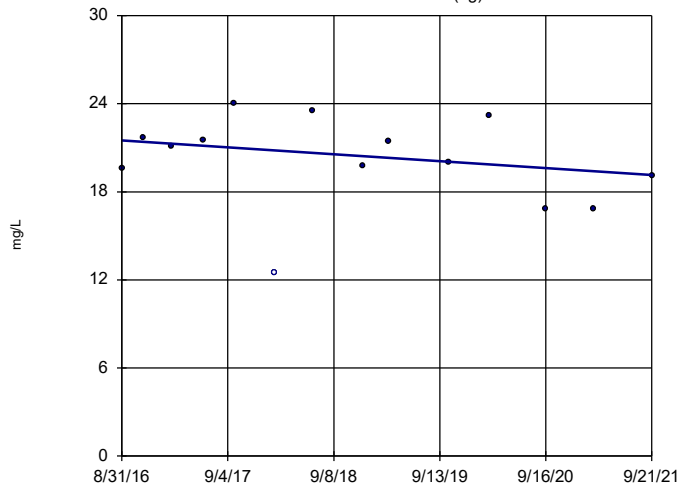
n = 14  
 Slope = -0.07521  
 units per year.  
 Mann-Kendall  
 statistic = -6  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-5S (bg)

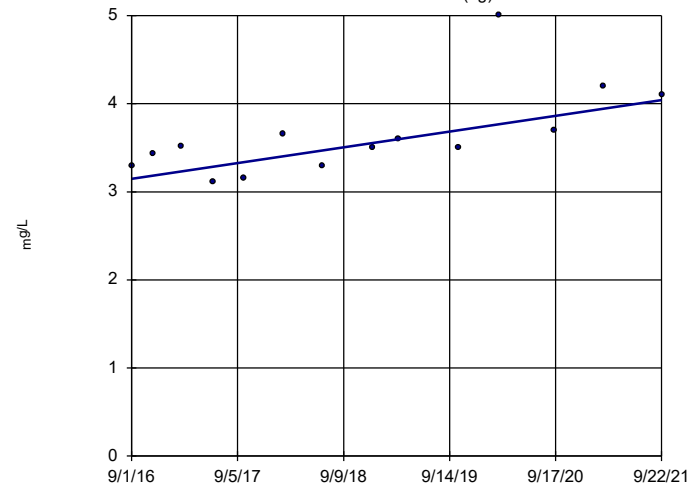


n = 14  
 Slope = -0.4646  
 units per year.  
 Mann-Kendall  
 statistic = -20  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

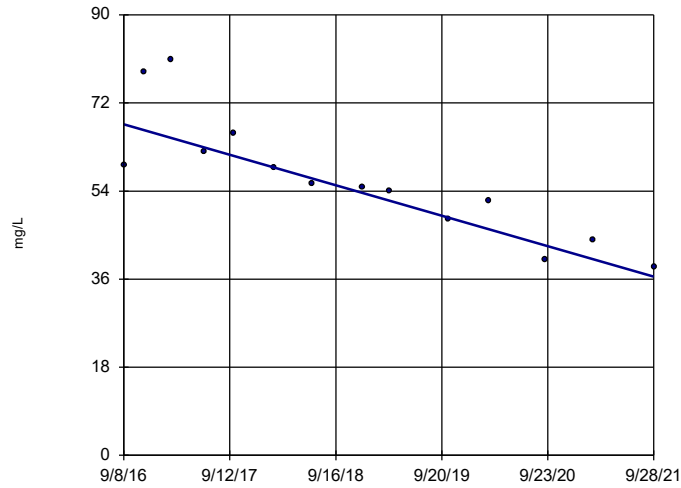


n = 14  
 Slope = 0.177  
 units per year.  
 Mann-Kendall  
 statistic = 51  
 critical = 48  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-25I

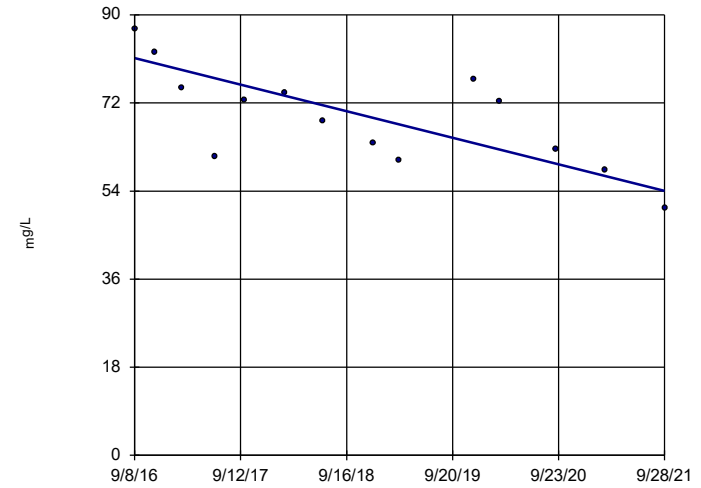


n = 14  
 Slope = -6.149  
 units per year.  
 Mann-Kendall  
 statistic = -75  
 critical = -48  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-27I

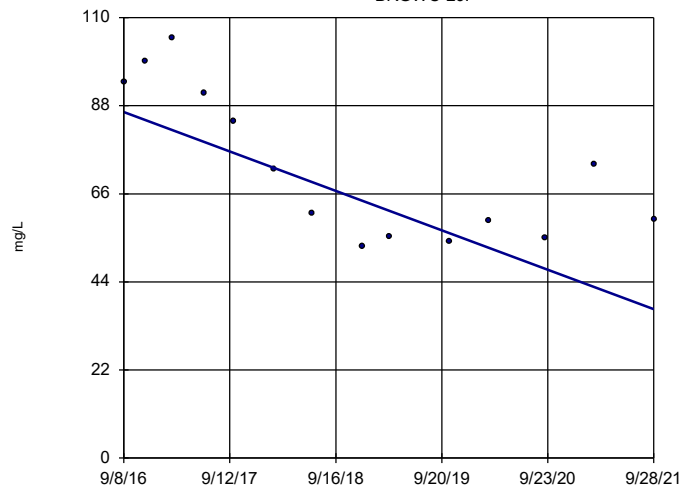


n = 14  
 Slope = -5.366  
 units per year.  
 Mann-Kendall  
 statistic = -55  
 critical = -48  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-29I

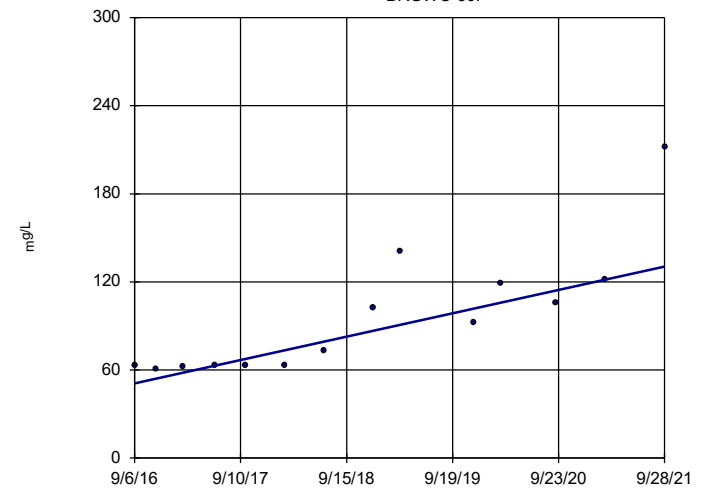


n = 14  
 Slope = -9.731  
 units per year.  
 Mann-Kendall  
 statistic = -47  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

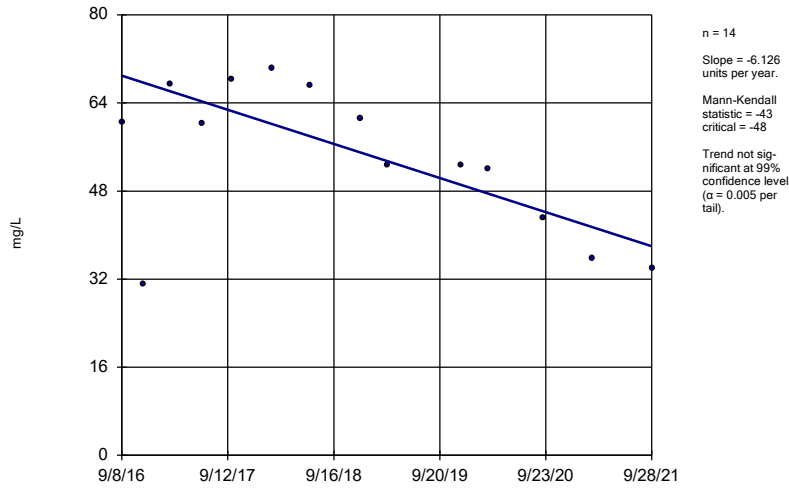
BRGWC-30I



n = 14  
 Slope = 15.72  
 units per year.  
 Mann-Kendall  
 statistic = 68  
 critical = 48  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

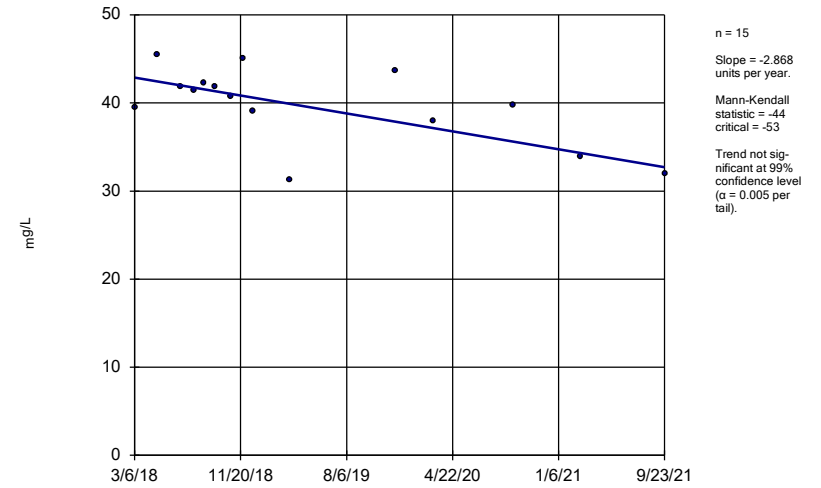
Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-32S



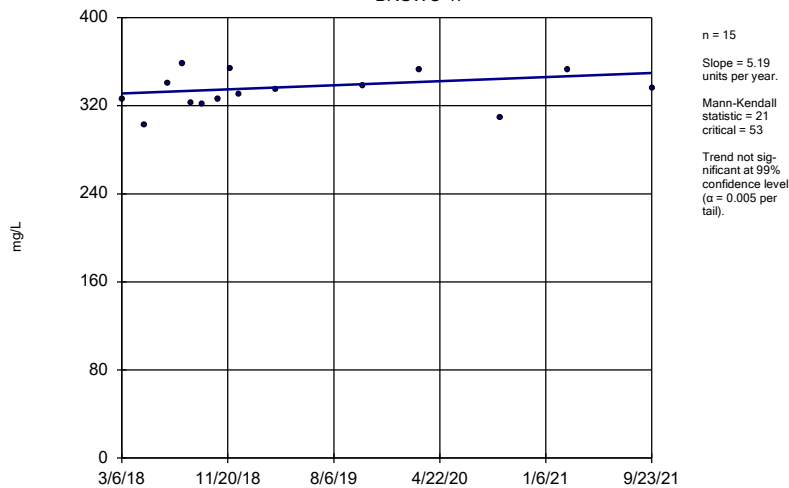
Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-45



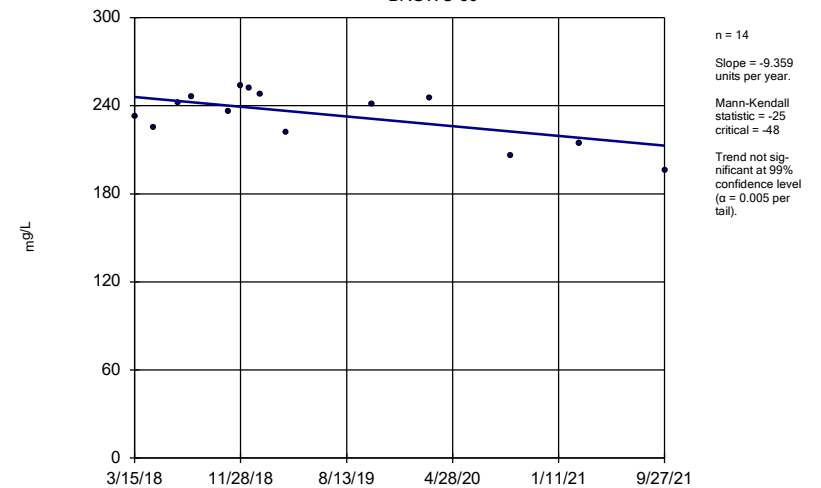
Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-47



Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

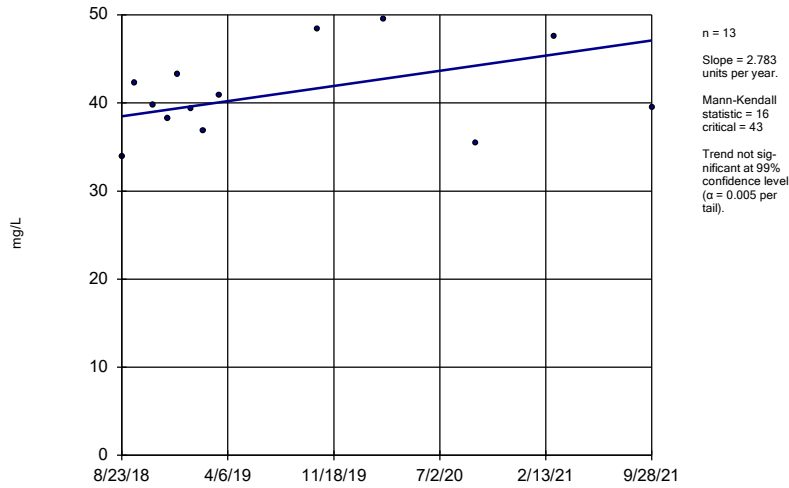
Sen's Slope Estimator  
BRGWC-50



Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

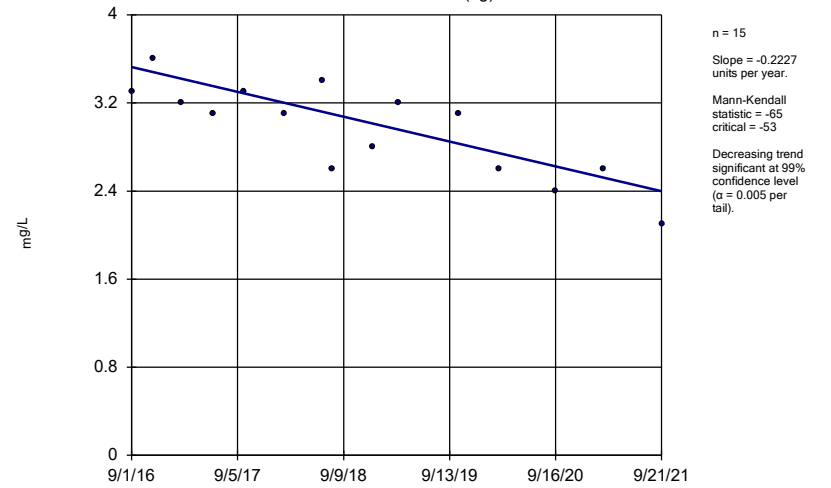
BRGWC-52I



Constituent: Calcium Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

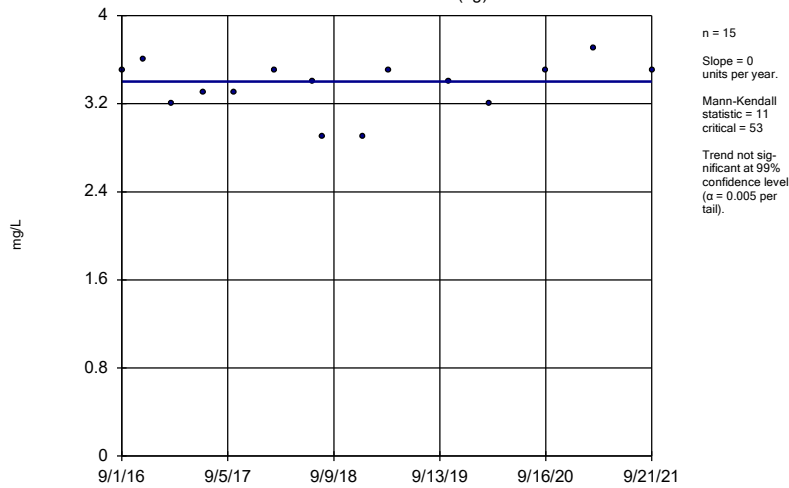
BRGWA-12I (bg)



Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

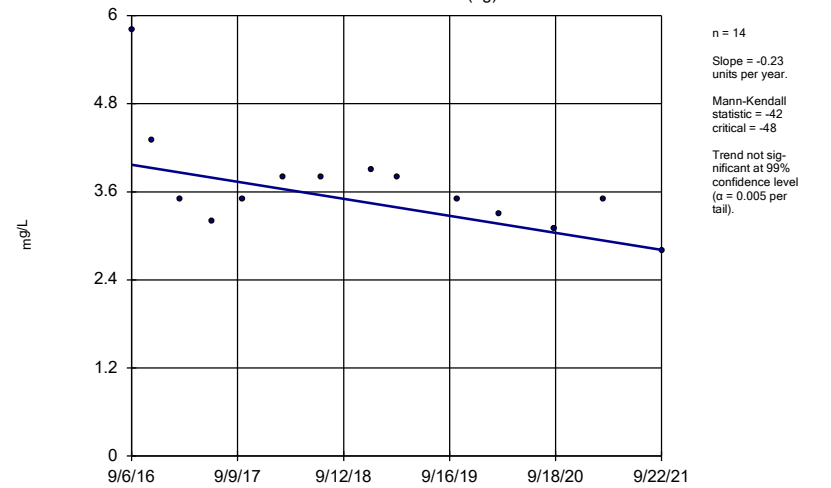
BRGWA-12S (bg)



Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

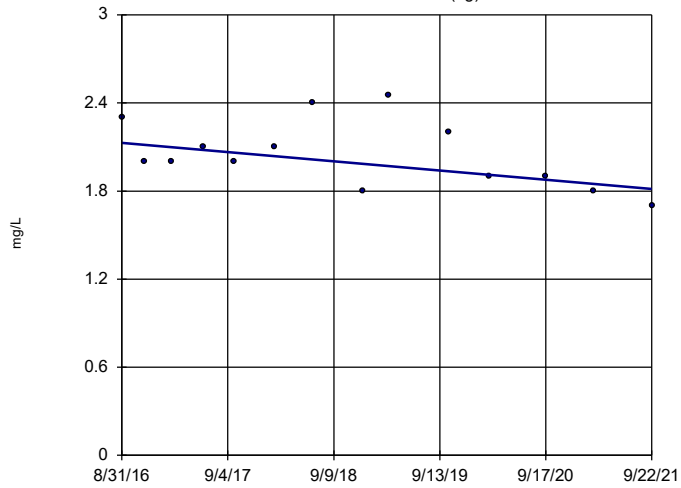
BRGWA-23S (bg)



Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

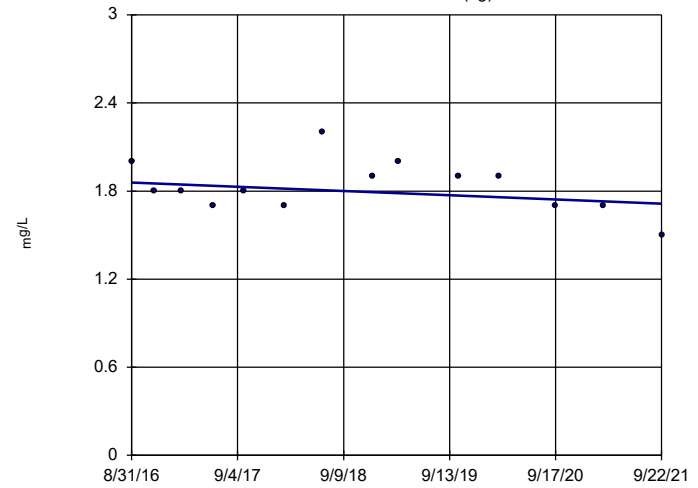


n = 14  
 Slope = -0.06183  
 units per year.  
 Mann-Kendall  
 statistic = -31  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

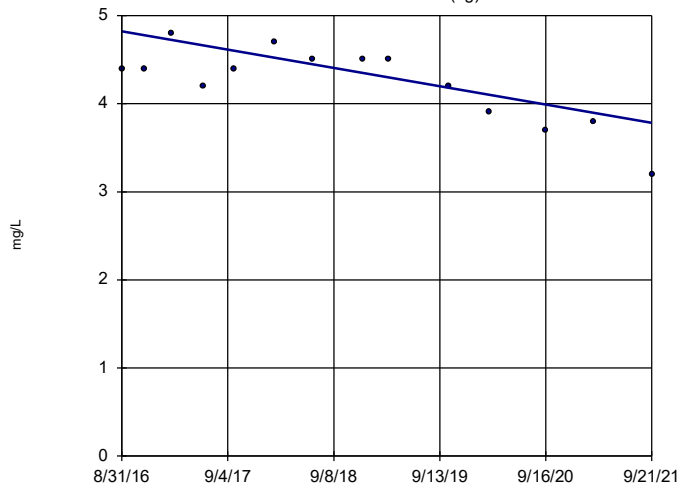


n = 14  
 Slope = -0.02852  
 units per year.  
 Mann-Kendall  
 statistic = -22  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

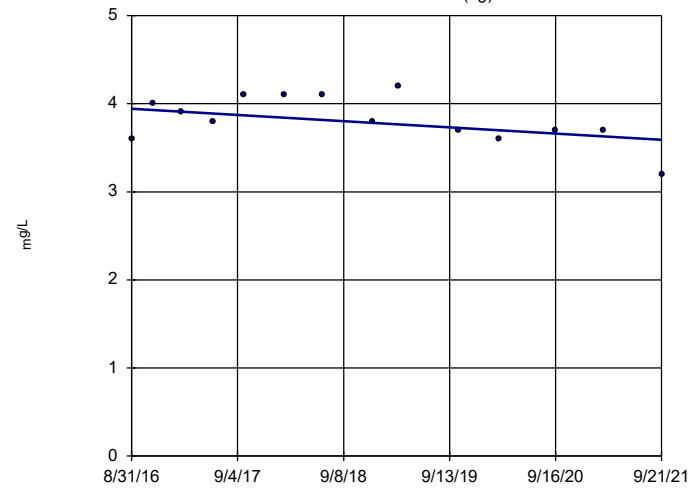


n = 14  
 Slope = -0.2053  
 units per year.  
 Mann-Kendall  
 statistic = -44  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

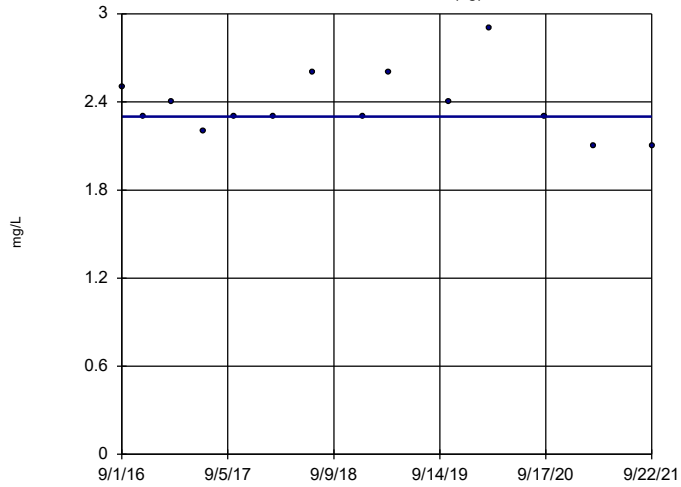


n = 14  
 Slope = -0.06983  
 units per year.  
 Mann-Kendall  
 statistic = -25  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

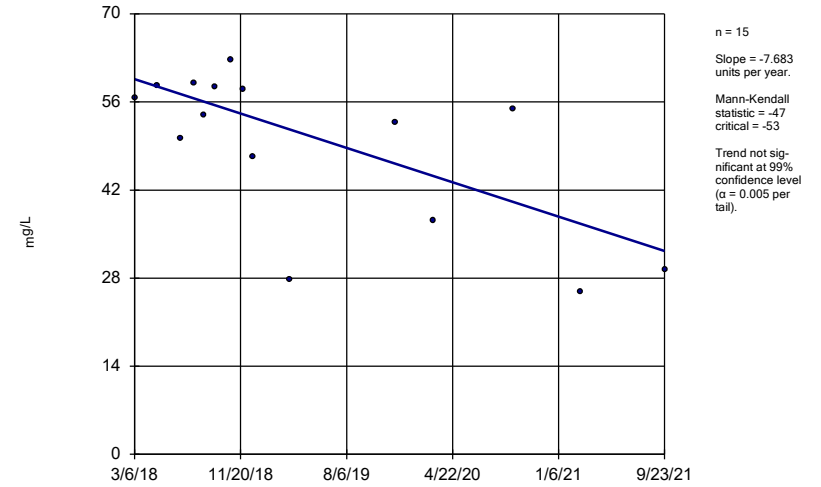
BRGWA-6S (bg)



Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

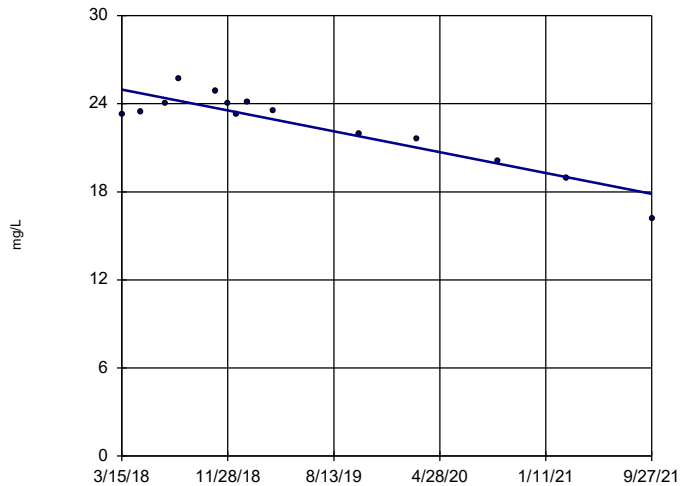
BRGWC-45



Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

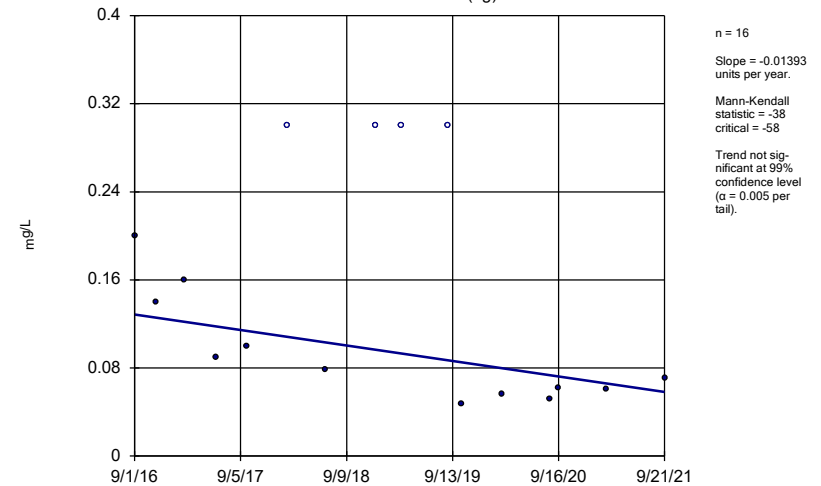
BRGWC-50



Constituent: Chloride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

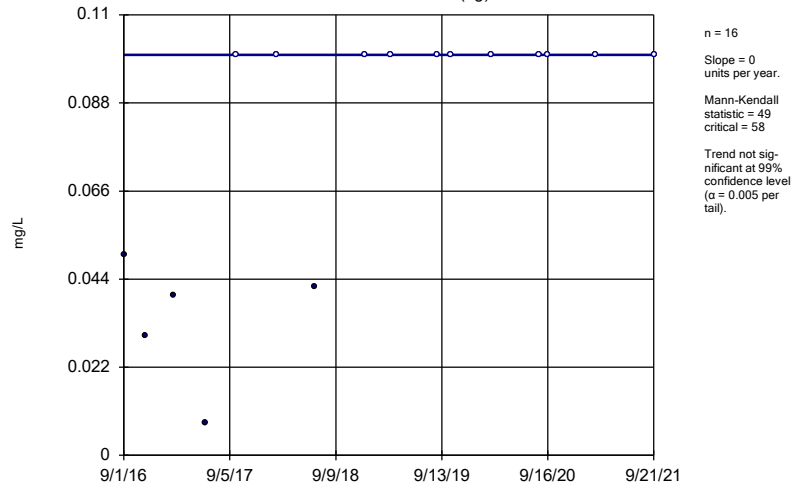
BRGWA-12I (bg)



Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

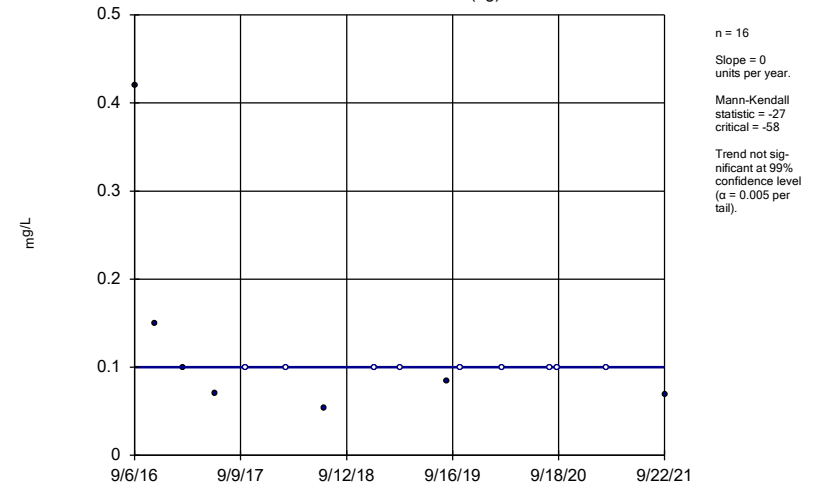
BRGWA-12S (bg)



Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

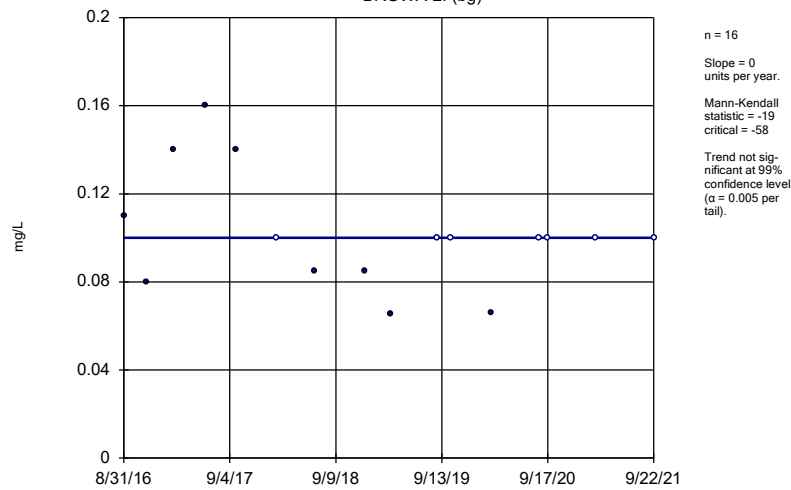
BRGWA-23S (bg)



Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

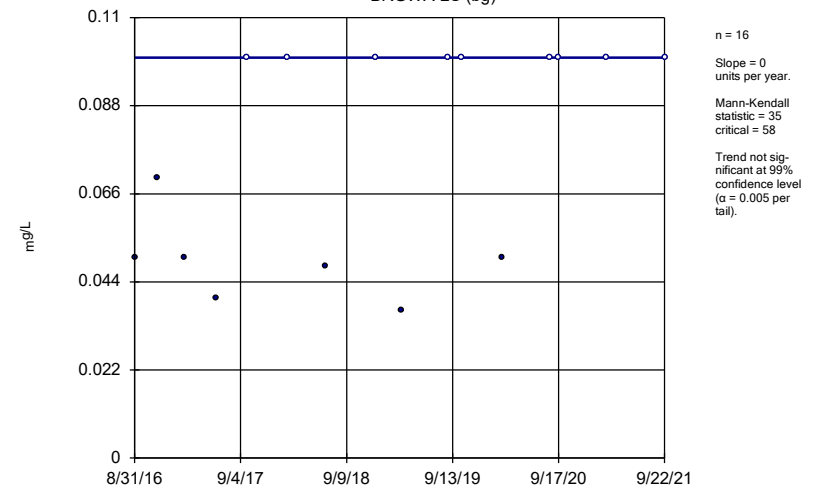
BRGWA-2I (bg)



Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

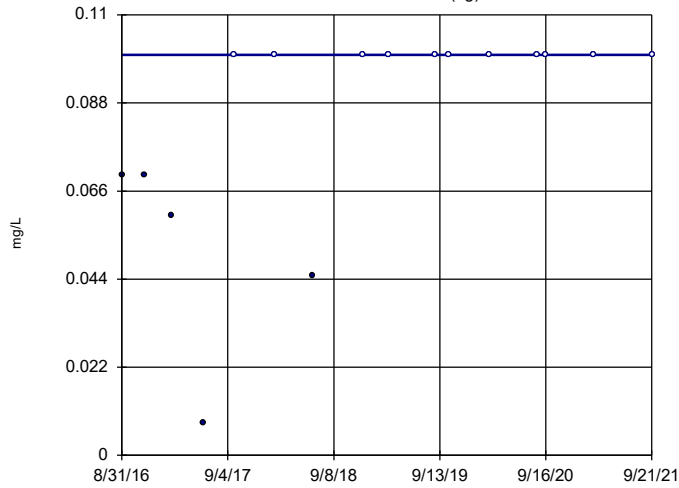
BRGWA-2S (bg)



Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

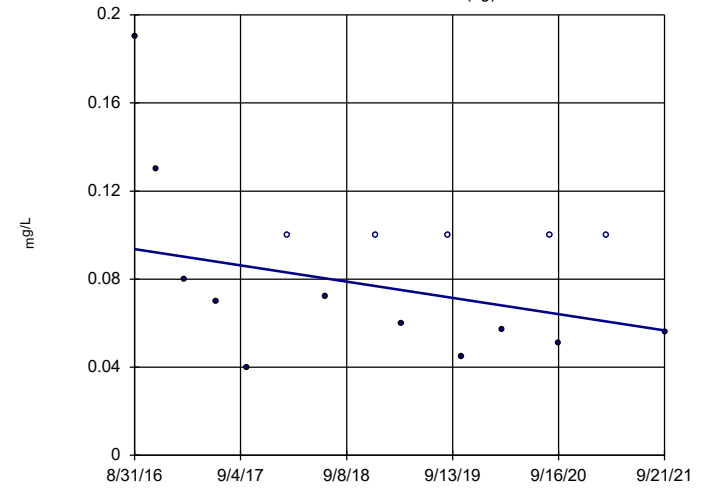


n = 16  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 44  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

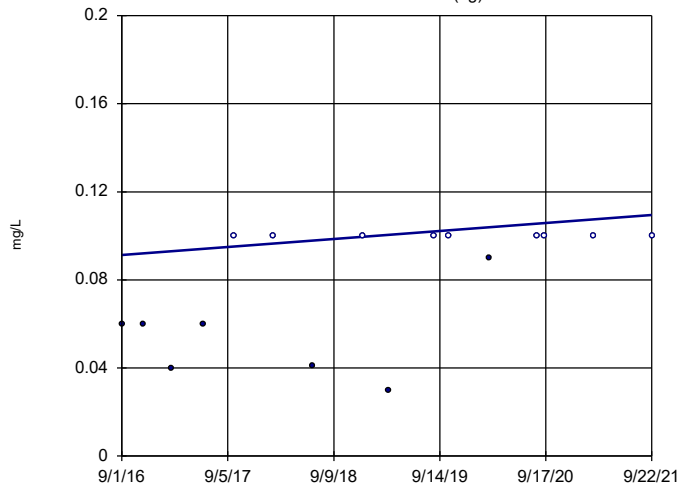


n = 16  
Slope = -0.007283  
units per year.  
Mann-Kendall  
statistic = -34  
critical = -58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

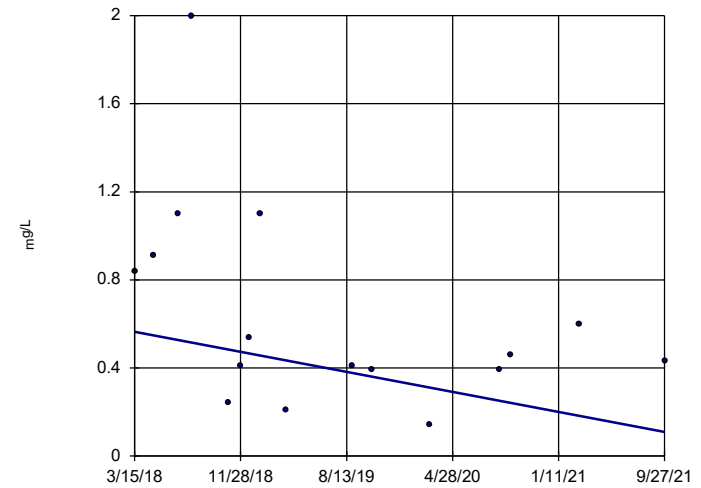


n = 16  
Slope = 0.003585  
units per year.  
Mann-Kendall  
statistic = 41  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50



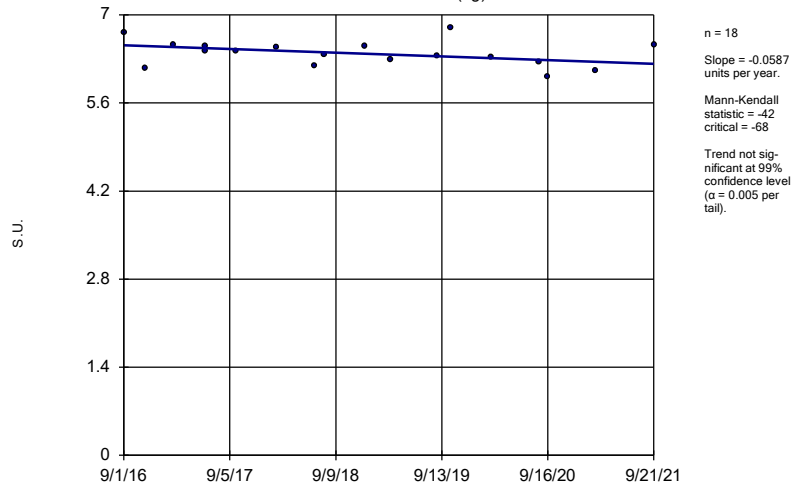
n = 16  
Slope = -0.1283  
units per year.  
Mann-Kendall  
statistic = -29  
critical = -58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

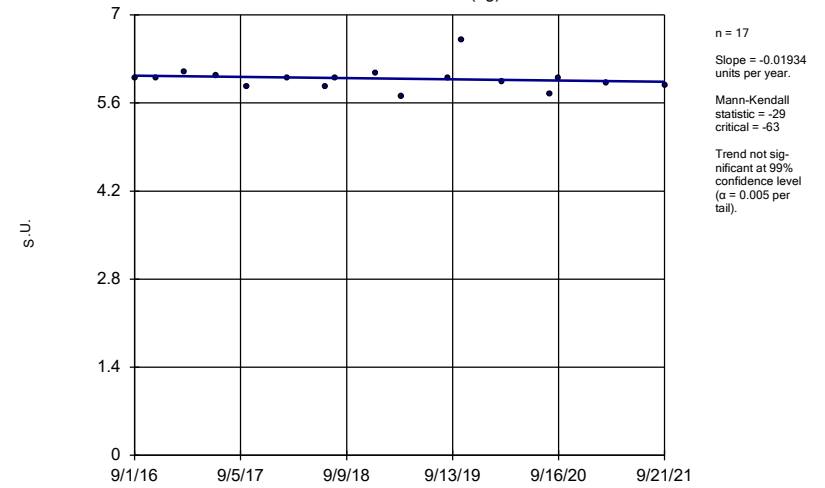
BRGWA-12I (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

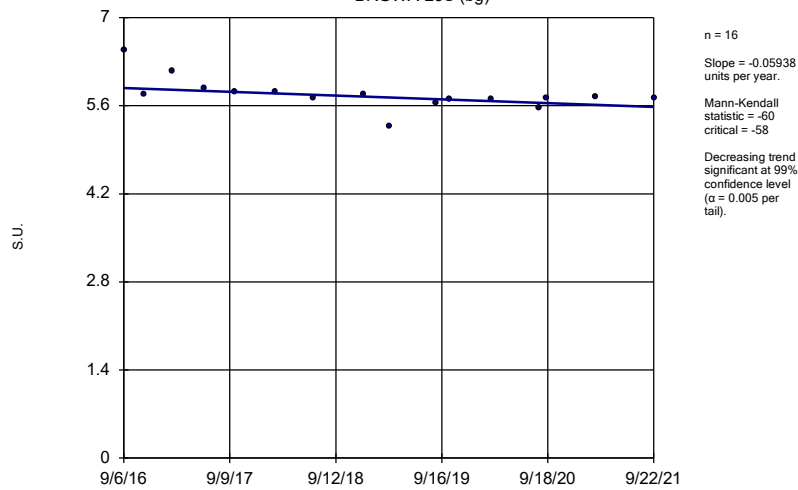
BRGWA-12S (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

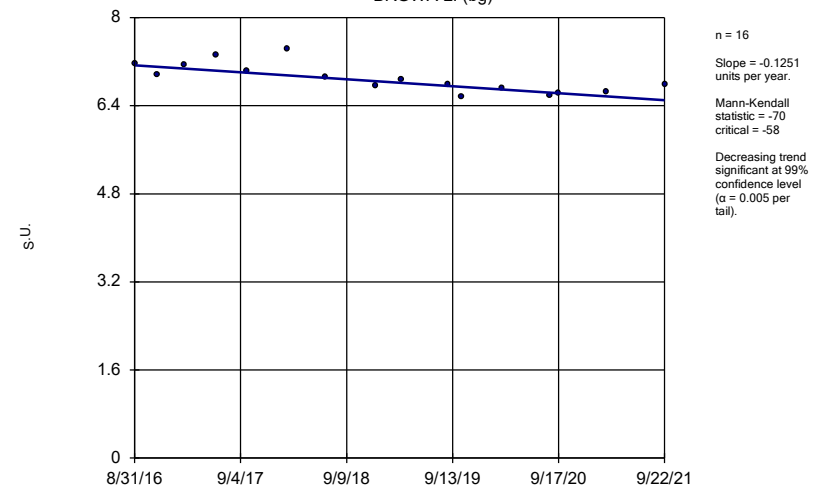
BRGWA-23S (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

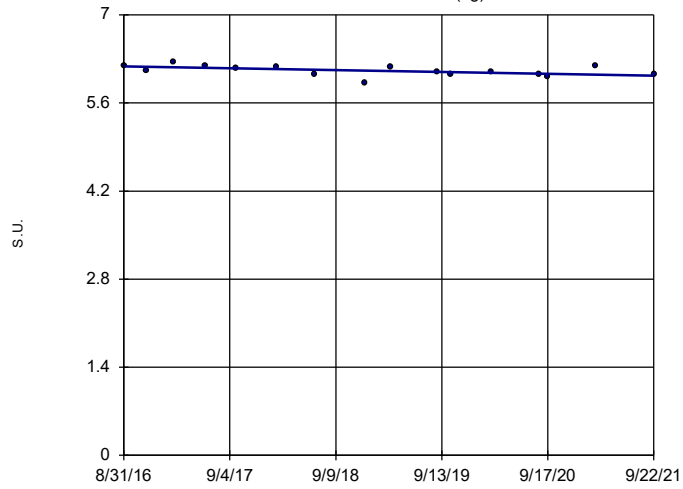
BRGWA-2I (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:35 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

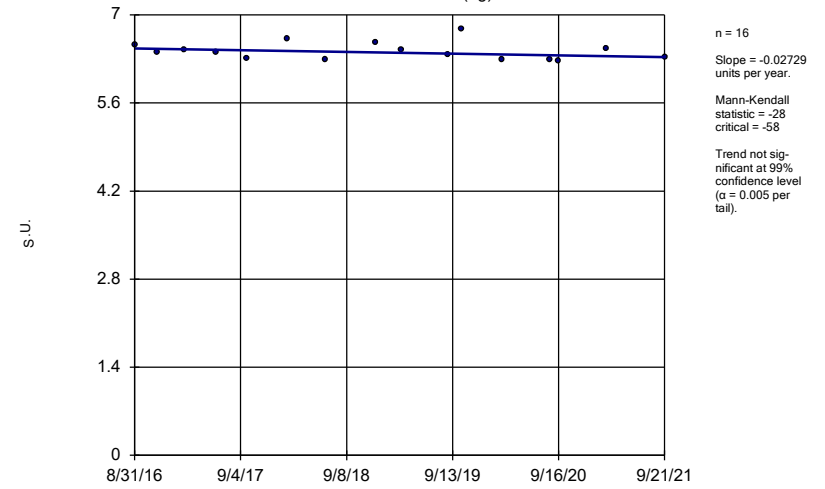
BRGWA-2S (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

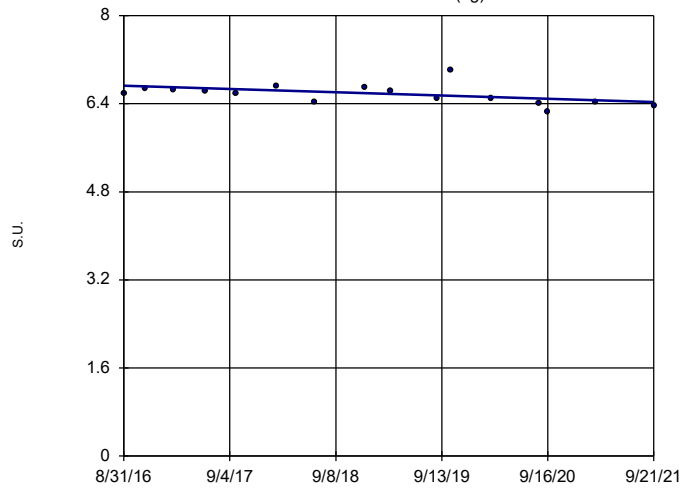
BRGWA-5I (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

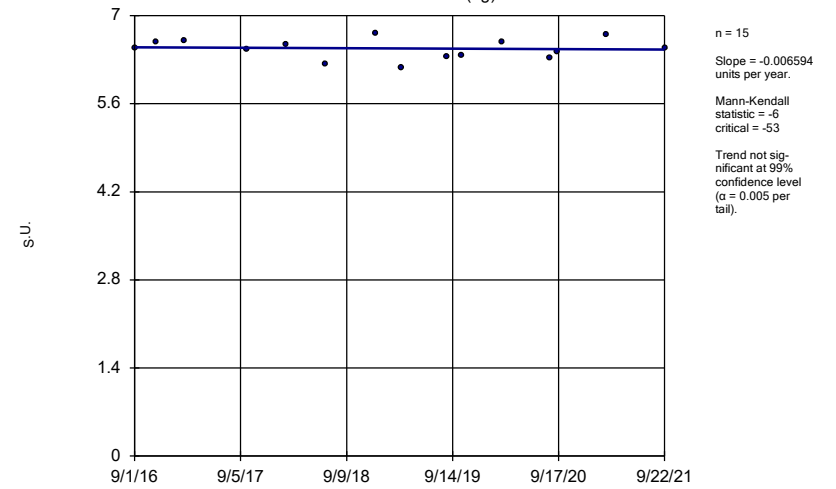
BRGWA-5S (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

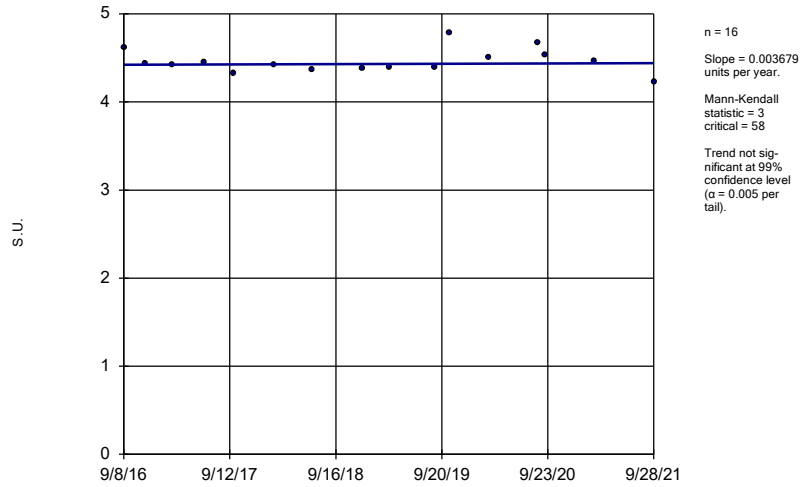
BRGWA-6S (bg)



Constituent: pH, Field Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

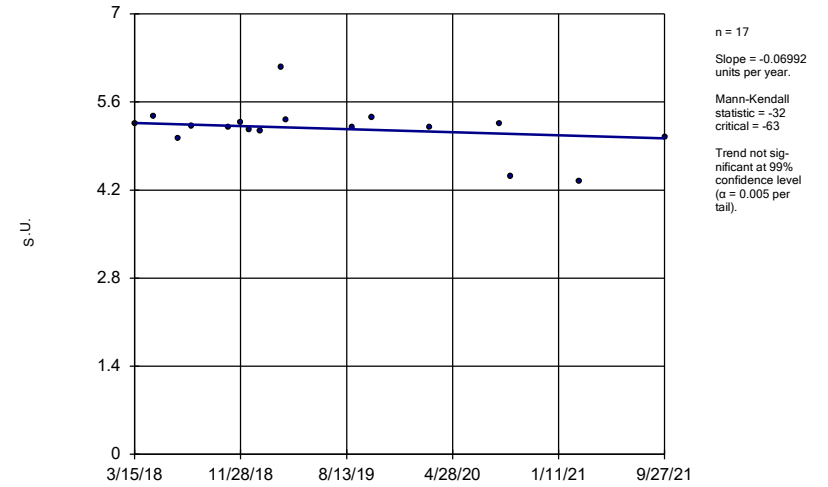
BRGWC-29I



Constituent: pH, Field Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

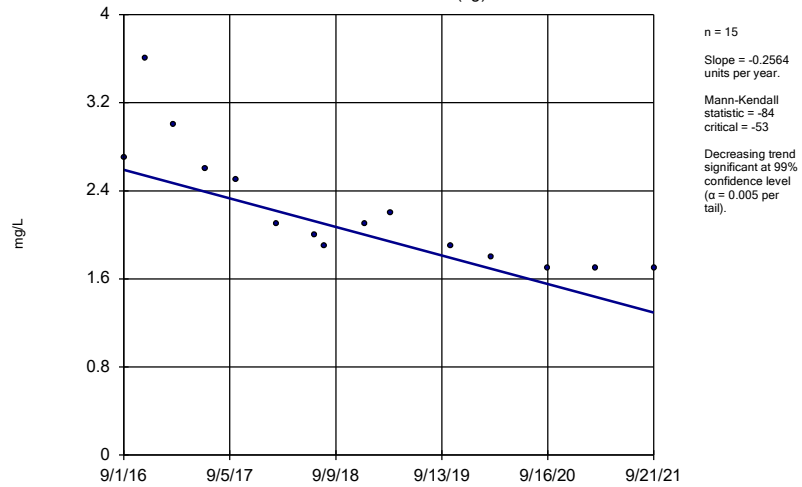
BRGWC-50



Constituent: pH, Field Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

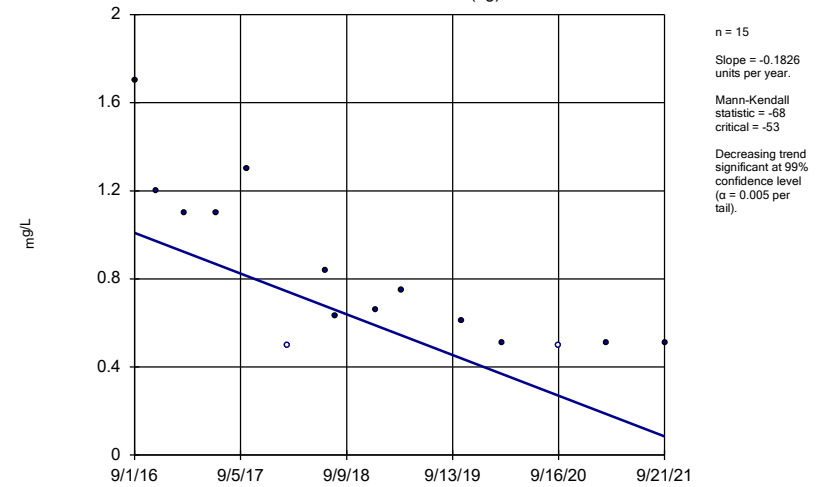
BRGWA-12I (bg)



Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

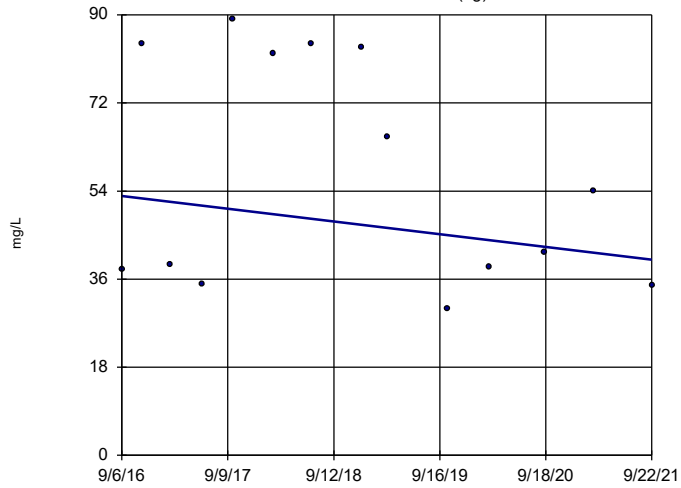
BRGWA-12S (bg)



Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

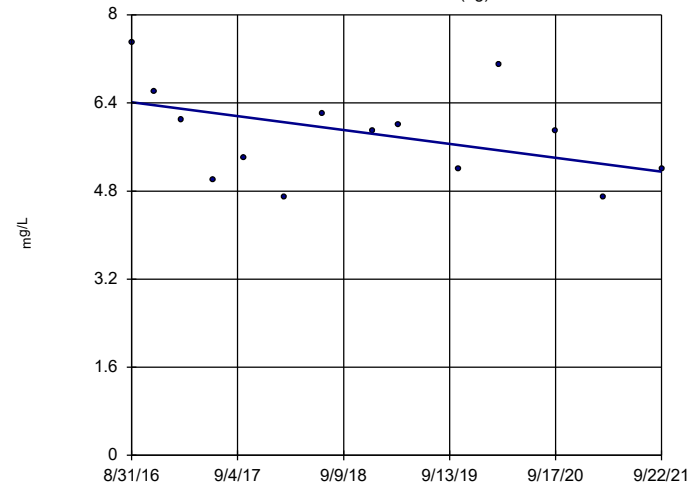


n = 14  
 Slope = -2.575  
 units per year.  
 Mann-Kendall  
 statistic = -19  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

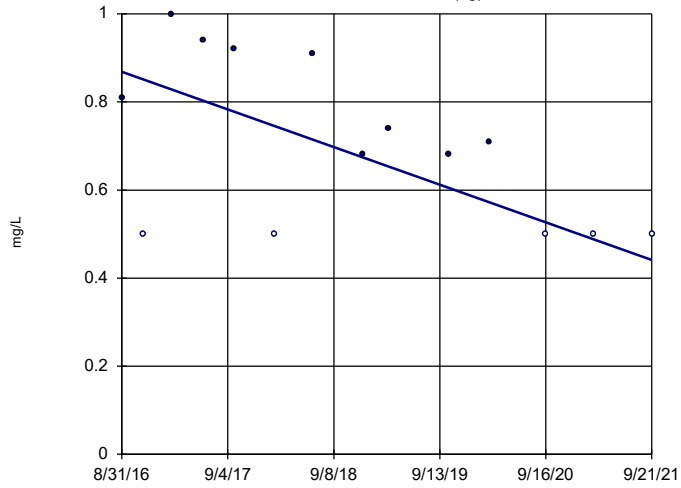
### Sen's Slope Estimator

BRGWA-2I (bg)



### Sen's Slope Estimator

BRGWA-5S (bg)

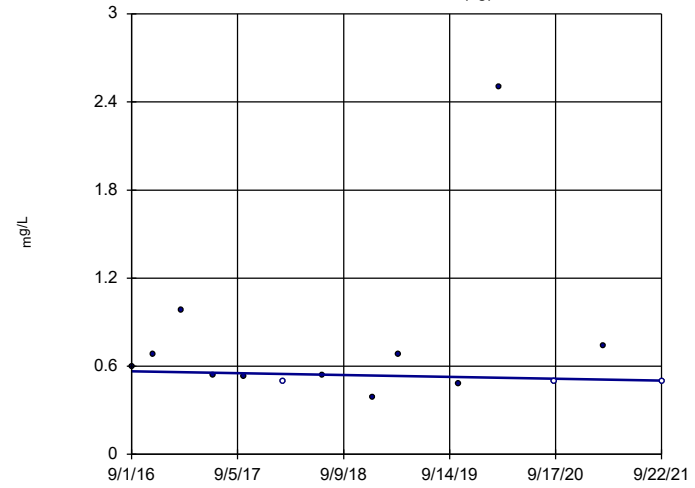


n = 14  
 Slope = -0.08437  
 units per year.  
 Mann-Kendall  
 statistic = -40  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

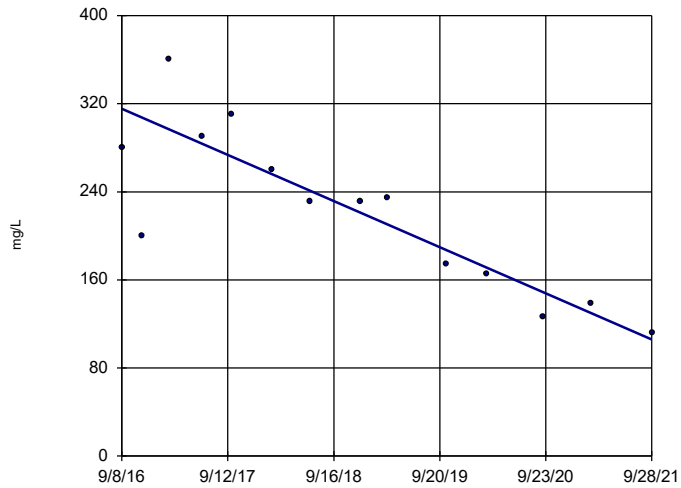


n = 14  
 Slope = -0.01226  
 units per year.  
 Mann-Kendall  
 statistic = -14  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-25I

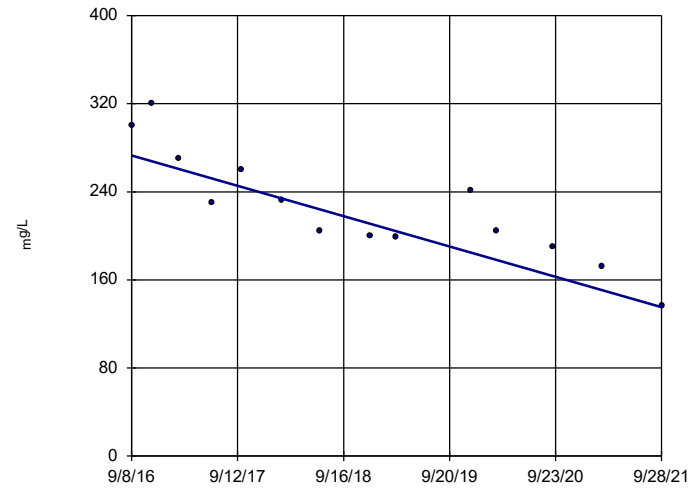


n = 14  
 Slope = -41.43  
 units per year.  
 Mann-Kendall  
 statistic = -62  
 critical = -48  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-27I



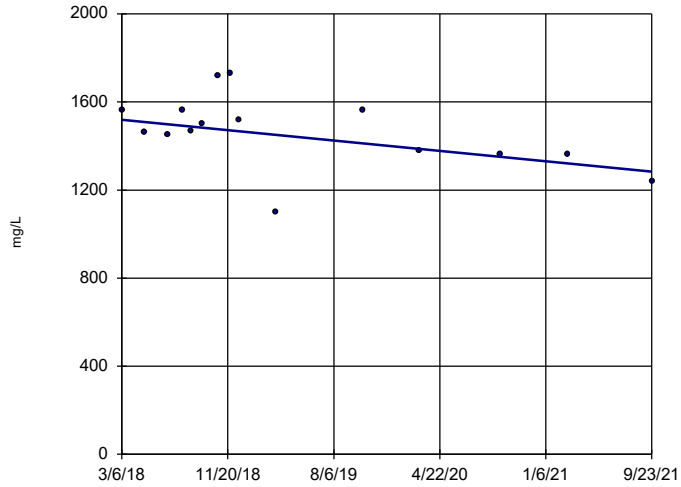
n = 14  
 Slope = -27.24  
 units per year.  
 Mann-Kendall  
 statistic = -70  
 critical = -48  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWC-47

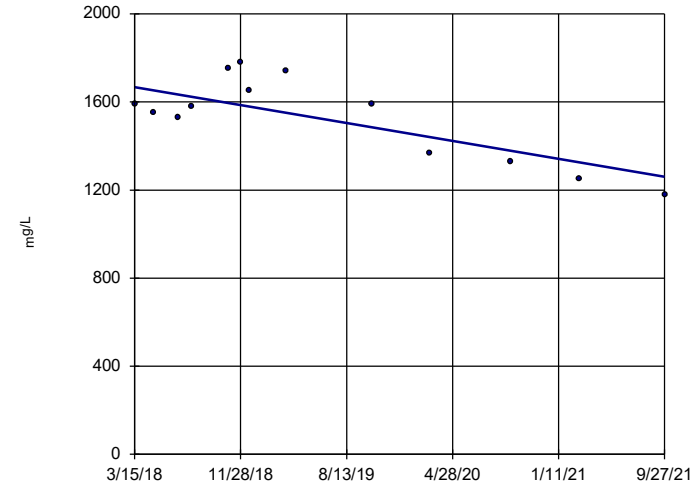


n = 15  
 Slope = -66.18 units per year.  
 Mann-Kendall statistic = -33  
 critical = -53  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50

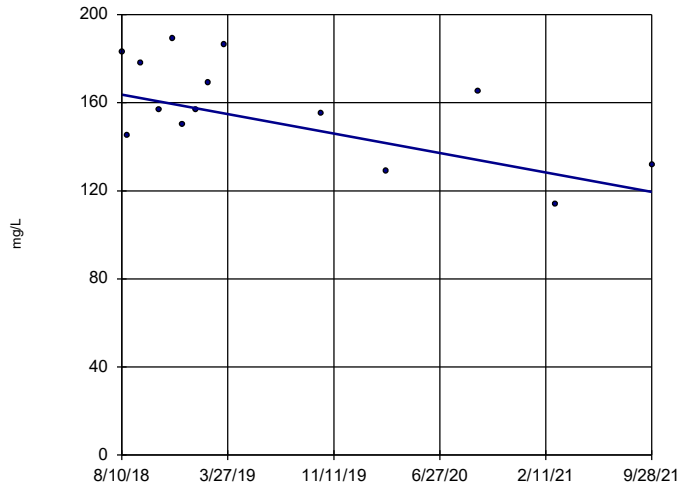


n = 13  
 Slope = -115.1 units per year.  
 Mann-Kendall statistic = -31  
 critical = -43  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-52I

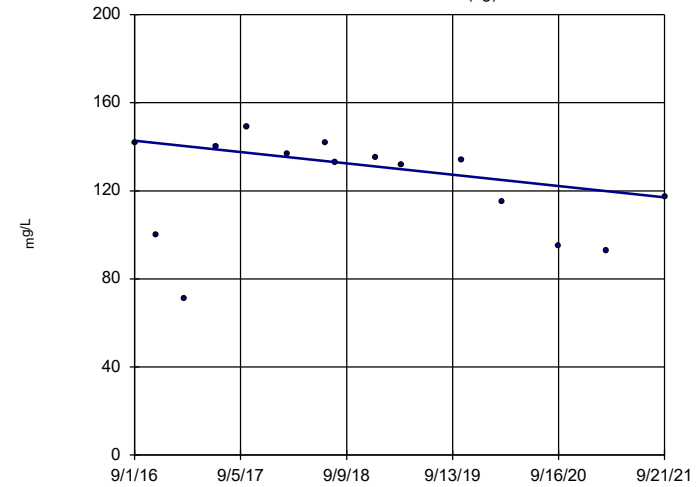


n = 14  
 Slope = -14.1 units per year.  
 Mann-Kendall statistic = -30  
 critical = -48  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12I (bg)

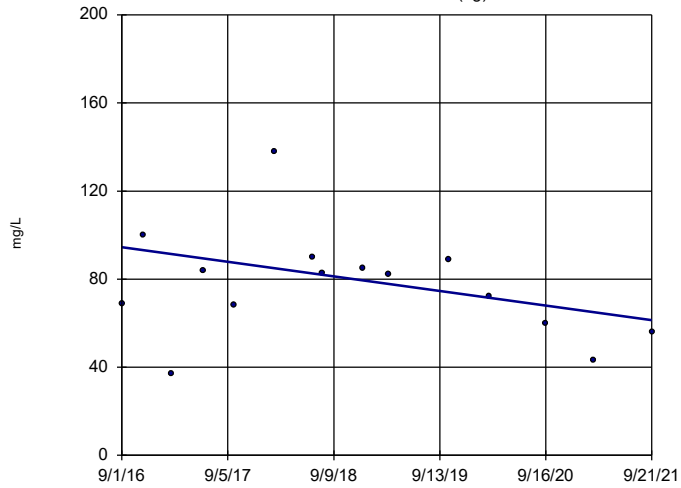


n = 15  
 Slope = -5.087 units per year.  
 Mann-Kendall statistic = -40  
 critical = -53  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLs  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

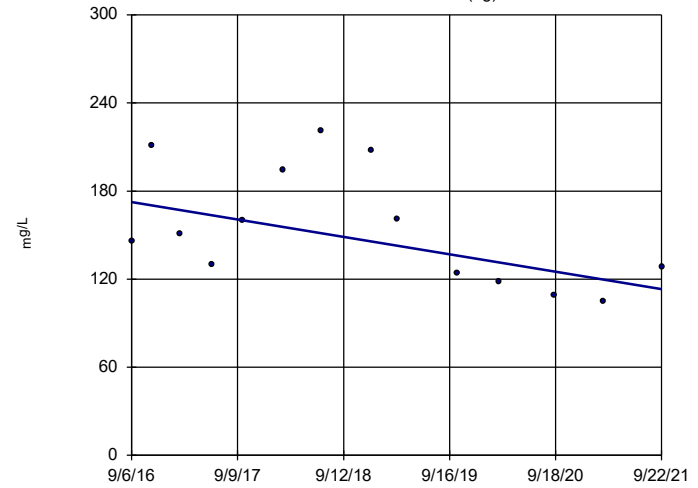


n = 15  
 Slope = -6.547  
 units per year.  
 Mann-Kendall  
 statistic = -29  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

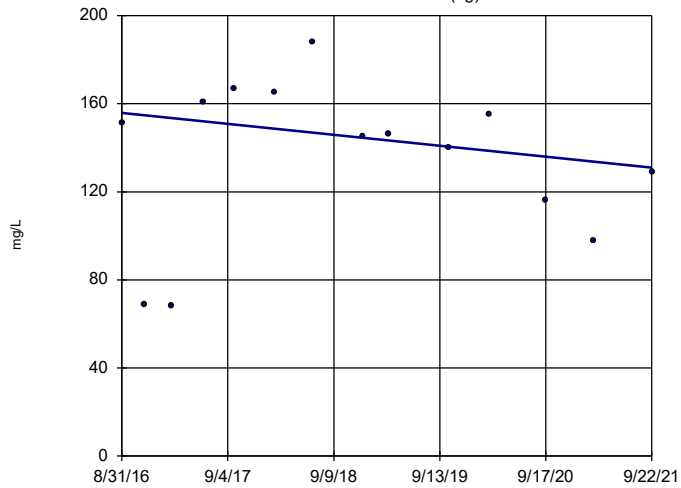


n = 14  
 Slope = -11.77  
 units per year.  
 Mann-Kendall  
 statistic = -35  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)



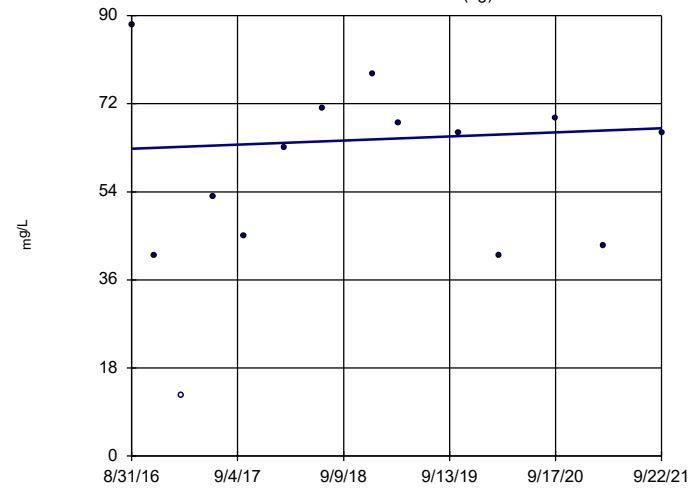
n = 14  
 Slope = -4.927  
 units per year.  
 Mann-Kendall  
 statistic = -15  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-2S (bg)



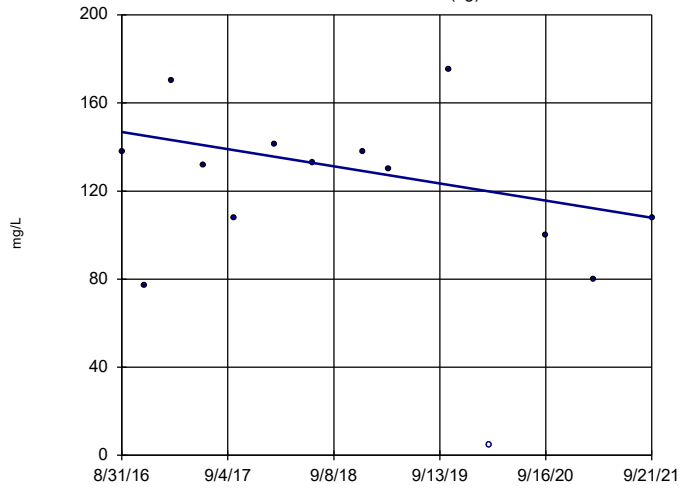
n = 14  
 Slope = 0.8314  
 units per year.  
 Mann-Kendall  
 statistic = 7  
 critical = 48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWA-5I (bg)

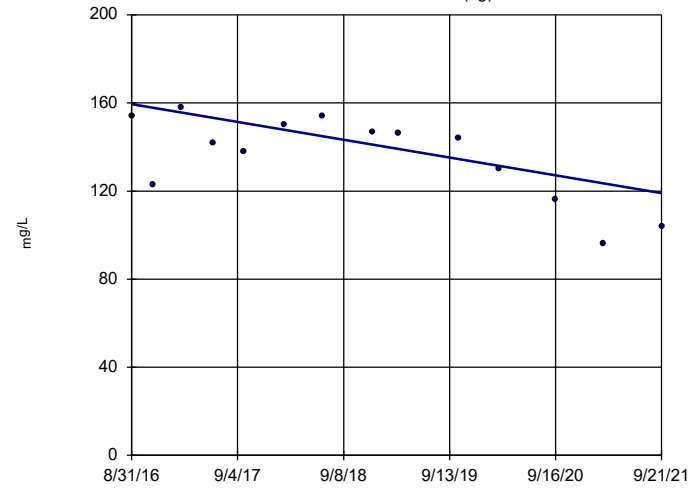


n = 14  
 Slope = -7.713  
 units per year.  
 Mann-Kendall  
 statistic = -21  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

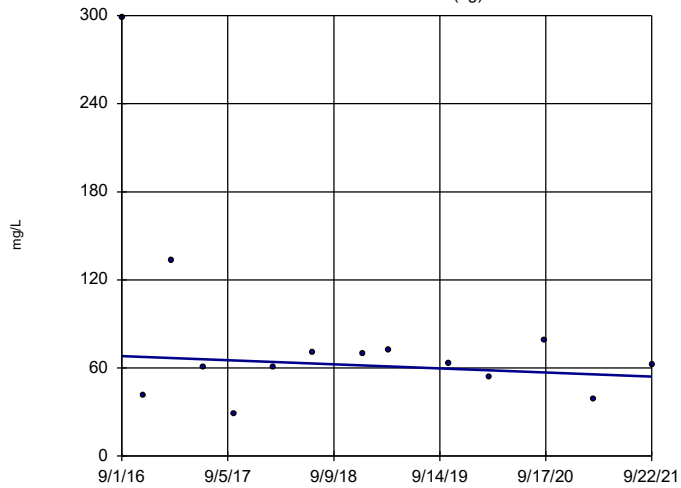


n = 14  
 Slope = -7.968  
 units per year.  
 Mann-Kendall  
 statistic = -46  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-6S (bg)

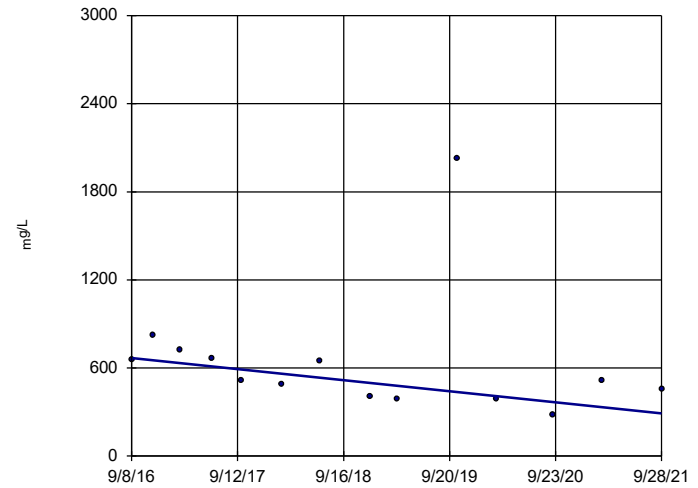


n = 14  
 Slope = -2.774  
 units per year.  
 Mann-Kendall  
 statistic = -10  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-29I

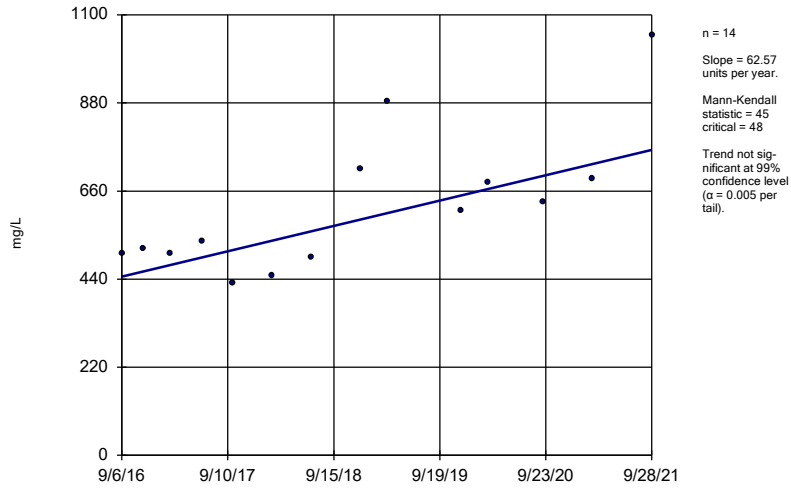


n = 14  
 Slope = -74.57  
 units per year.  
 Mann-Kendall  
 statistic = -44  
 critical = -48  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

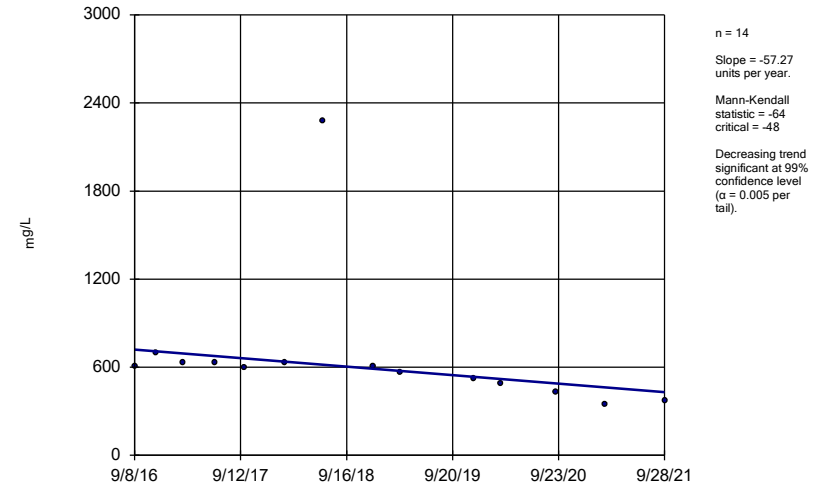
BRGWC-30I



Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

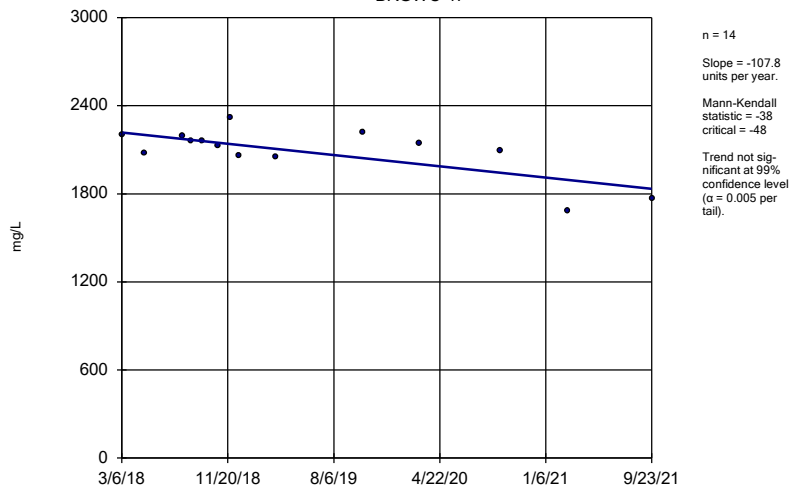
BRGWC-32S



Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

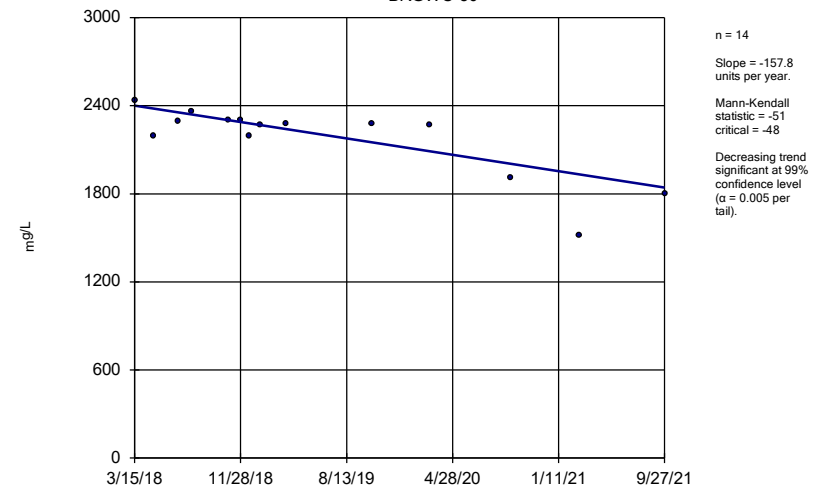
BRGWC-47



Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

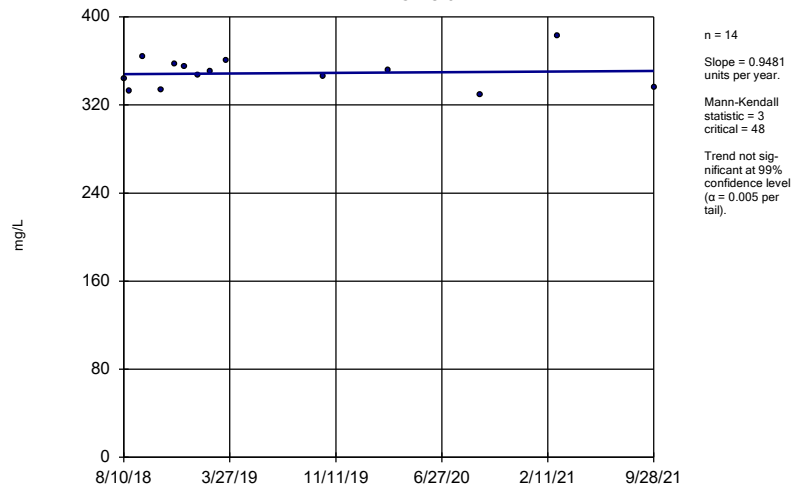
BRGWC-50



Constituent: Total Dissolved Solids Analysis Run 11/9/2021 6:36 AM View: Trend Tests - PLS  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-52I



Constituent: Total Dissolved Solids    Analysis Run 11/9/2021 6:36 AM    View: Trend Tests - PLs  
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 11/23/2021, 11:50 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.017	120	n/a	n/a	81.67	n/a	n/a	0.002122	NP Inter(NDs)
Arsenic (mg/L)	0.005	120	n/a	n/a	75.83	n/a	n/a	0.002122	NP Inter(NDs)
Barium (mg/L)	0.13	120	n/a	n/a	0	n/a	n/a	0.002122	NP Inter(normality)
Beryllium (mg/L)	0.0005	120	n/a	n/a	100	n/a	n/a	0.002122	NP Inter(NDs)
Cadmium (mg/L)	0.0005	122	n/a	n/a	98.36	n/a	n/a	0.001915	NP Inter(NDs)
Chromium (mg/L)	0.016	120	n/a	n/a	19.17	n/a	n/a	0.002122	NP Inter(normality)
Cobalt (mg/L)	0.0135	120	n/a	n/a	56.67	n/a	n/a	0.002122	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	1.646	120	0.796	0.448	0	None	No	0.05	Inter
Fluoride (mg/L)	0.42	128	n/a	n/a	50.78	n/a	n/a	0.001408	NP Inter(normality)
Lead (mg/L)	0.0013	120	n/a	n/a	85	n/a	n/a	0.002122	NP Inter(NDs)
Lithium (mg/L)	0.089	120	n/a	n/a	39.17	n/a	n/a	0.002122	NP Inter(normality)
Mercury (mg/L)	0.00021	104	n/a	n/a	85.58	n/a	n/a	0.004822	NP Inter(NDs)
Molybdenum (mg/L)	0.01	117	n/a	n/a	78.63	n/a	n/a	0.002475	NP Inter(NDs)
Selenium (mg/L)	0.006	120	n/a	n/a	90.83	n/a	n/a	0.002122	NP Inter(NDs)
Thallium (mg/L)	0.001	120	n/a	n/a	100	n/a	n/a	0.002122	NP Inter(NDs)

FIGURE G.

<b>PLANT BRANCH PONDS B,C,D GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.017	0.017
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	0.0005	0.005
Chromium, Total (mg/L)	0.1	0.016	0.1
Cobalt, Total (mg/L)	n/a	0.014	0.014
Combined Radium, Total (pCi/L)	5	1.65	5
Fluoride, Total (mg/L)	4	0.42	4
Lead, Total (mg/L)	n/a	0.0013	0.0013
Lithium, Total (mg/L)	n/a	0.089	0.089
Mercury, Total (mg/L)	0.002	0.00021	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.006	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

*\*Highlighted cells indicate Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

FIGURE H.



# Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 12/2/2021, 10:32 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cadmium (mg/L)	BRGWC-50	0.04274	0.0135	0.005	Yes	15	0.03023	0.02529	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BRGWC-50	1.5	1.3	0.014	Yes	15	1.387	0.06399	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	PZ-511	0.041	0.017	0.014	Yes	8	0.02213	0.007772	0	None	No	0.004	NP (normality)

# Confidence Intervals - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 12/2/2021, 10:32 AM

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	0.017	No	15	0.002847	0.0005939	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.017	No	15	0.002893	0.0004131	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-45	0.0031	0.0012	0.017	No	16	0.002378	0.0009265	56.25	None	No	0.01	NP (normality)
Antimony (mg/L)	BRGWC-47	0.003	0.00035	0.017	No	16	0.002834	0.0006625	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-50	0.003	0.00092	0.017	No	15	0.002523	0.000992	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-52I	0.003	0.00091	0.017	No	15	0.002546	0.0009451	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	PZ-51I	0.001766	0.0007453	0.017	No	6	0.002115	0.001011	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Antimony (mg/L)	PZ-51S	0.003	0.00043	0.017	No	6	0.002372	0.001065	66.67	None	No	0.0155	NP (normality)
Arsenic (mg/L)	BRGWC-25I	0.005	0.00072	0.01	No	15	0.00385	0.001976	73.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-27I	0.005	0.0011	0.01	No	15	0.00394	0.001825	73.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-29I	0.005	0.00065	0.01	No	15	0.00324	0.001997	53.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-30I	0.005	0.00056	0.01	No	15	0.004704	0.001146	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	15	0.004702	0.001154	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-45	0.005	0.00075	0.01	No	16	0.003756	0.001933	68.75	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-47	0.005	0.00089	0.01	No	16	0.002827	0.00182	37.5	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-50	0.005	0.0014	0.01	No	15	0.004173	0.001721	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-52I	0.005	0.0016	0.01	No	15	0.003478	0.001479	33.33	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-25I	0.03643	0.02682	2	No	15	0.03163	0.007089	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-27I	0.01702	0.01492	2	No	15	0.01597	0.001551	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-29I	0.0195	0.01696	2	No	15	0.01823	0.001873	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-30I	0.02719	0.02171	2	No	15	0.02445	0.004044	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04406	0.02797	2	No	15	0.03601	0.01187	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-45	0.09639	0.07723	2	No	16	0.08681	0.01473	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-47	0.04407	0.0343	2	No	16	0.03918	0.007509	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-50	0.02149	0.01851	2	No	15	0.02	0.002204	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-52I	0.02605	0.01635	2	No	15	0.0212	0.007153	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51I	0.01686	0.01281	2	No	6	0.01483	0.001472	0	None	No	0.01	Param.
Barium (mg/L)	PZ-51S	0.03674	0.02593	2	No	6	0.03133	0.003933	0	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-27I	0.0005	0.0001	0.004	No	16	0.00023	0.000166	25	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-29I	0.001054	0.0007242	0.004	No	15	0.0008893	0.0002436	6.667	None	No	0.01	Param.
Beryllium (mg/L)	BRGWC-45	0.0005	0.000079	0.004	No	17	0.0004485	0.0001454	88.24	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-47	0.0005	0.000056	0.004	No	16	0.0004161	0.0001803	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	BRGWC-50	0.004915	0.002458	0.004	No	15	0.003687	0.001813	13.33	None	No	0.01	Param.
Beryllium (mg/L)	PZ-51I	0.0005	0.000064	0.004	No	6	0.0001508	0.0001716	16.67	None	No	0.0155	NP (normality)
Cadmium (mg/L)	BRGWC-27I	0.0005	0.00009	0.005	No	16	0.0004475	0.0001435	87.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-30I	0.0005	0.00008	0.005	No	16	0.0004738	0.000105	93.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-32S	0.0005	0.00011	0.005	No	16	0.0004244	0.0001627	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-45	0.0005	0.0002	0.005	No	17	0.0004146	0.0001599	76.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-47	0.0005	0.00015	0.005	No	16	0.0003175	0.0001687	43.75	None	No	0.01	NP (normality)
<b>Cadmium (mg/L)</b>	<b>BRGWC-50</b>	<b>0.04274</b>	<b>0.0135</b>	<b>0.005</b>	<b>Yes</b>	<b>15</b>	<b>0.03023</b>	<b>0.02529</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	PZ-51I	0.01427	0.0009488	0.005	No	8	0.008004	0.0114	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	BRGWC-25I	0.005	0.0016	0.1	No	15	0.004505	0.001311	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-27I	0.005	0.003	0.1	No	15	0.0046	0.001121	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-29I	0.02	0.005	0.1	No	15	0.006	0.003873	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-30I	0.0051	0.005	0.1	No	15	0.005607	0.002322	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-32S	0.005	0.0012	0.1	No	15	0.002773	0.001684	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-45	0.005	0.0014	0.1	No	16	0.004246	0.00163	81.25	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-47	0.005	0.00092	0.1	No	16	0.004009	0.001789	75	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-50	0.005	0.00071	0.1	No	15	0.003383	0.002035	53.33	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-52I	0.005	0.0017	0.1	No	15	0.00478	0.0008521	93.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	PZ-51I	0.005	0.0008	0.1	No	6	0.00363	0.002123	66.67	None	No	0.0155	NP (normality)
Chromium (mg/L)	PZ-51S	0.005	0.00042	0.1	No	6	0.003508	0.002312	66.67	None	No	0.0155	NP (normality)
Cobalt (mg/L)	BRGWC-25I	0.006964	0.004102	0.014	No	15	0.005533	0.002112	6.667	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-27I	0.01096	0.00775	0.014	No	16	0.009356	0.00247	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-29I	0.01006	0.006469	0.014	No	15	0.008367	0.002766	6.667	None	sqrt(x)	0.01	Param.

# Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 12/2/2021, 10:32 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	BRGWC-30I	0.0016	0.00078	0.014	No	16	0.001817	0.001608	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-32S	0.005	0.0025	0.014	No	16	0.004594	0.001143	87.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BRGWC-45	0.015	0.0064	0.014	No	17	0.01331	0.01501	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-47	0.003786	0.0007947	0.014	No	16	0.002822	0.003337	12.5	None	x^(1/3)	0.01	Param.
<b>Cobalt (mg/L)</b>	<b>BRGWC-50</b>	<b>1.5</b>	<b>1.3</b>	<b>0.014</b>	<b>Yes</b>	<b>15</b>	<b>1.387</b>	<b>0.06399</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Cobalt (mg/L)	BRGWC-52I	0.005	0.0012	0.014	No	15	0.003566	0.001825	53.33	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>PZ-51I</b>	<b>0.041</b>	<b>0.017</b>	<b>0.014</b>	<b>Yes</b>	<b>8</b>	<b>0.02213</b>	<b>0.007772</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.004</b>	<b>NP (normality)</b>
Cobalt (mg/L)	PZ-51S	0.008222	0.00312	0.014	No	7	0.005671	0.002148	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-25I	1.518	0.5183	5	No	15	1.119	0.9983	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-27I	1.453	0.5539	5	No	15	1.058	0.8075	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-29I	1.643	1.194	5	No	15	1.418	0.3315	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-30I	1.133	0.6188	5	No	15	0.8757	0.3791	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.098	0.4761	5	No	15	0.7871	0.4588	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-45	0.8176	0.3742	5	No	16	0.5959	0.3407	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-47	1.444	0.8221	5	No	16	1.133	0.478	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-50	2.012	1.236	5	No	15	1.624	0.5732	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-52I	2.299	1.396	5	No	15	1.847	0.6669	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-51I	11.7	0.771	5	No	6	2.999	4.287	0	None	No	0.0155	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-51S	10.86	-3.1e-8	5	No	6	3.51	6.673	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BRGWC-25I	0.29	0.14	4	No	16	0.2131	0.143	6.25	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-27I	0.2684	0.1508	4	No	16	0.2096	0.0904	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-29I	0.227	0.09209	4	No	16	0.1818	0.1287	12.5	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-30I	0.3663	0.1278	4	No	16	0.2657	0.2246	6.25	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.11	0.09	4	No	16	0.1063	0.03914	62.5	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-45	0.12	0.067	4	No	17	0.1815	0.2444	52.94	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-47	0.34	0.076	4	No	17	0.2491	0.268	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-50	0.8598	0.3393	4	No	16	0.6356	0.469	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-52I	0.2422	0.1306	4	No	15	0.1864	0.08242	6.667	None	No	0.01	Param.
Fluoride (mg/L)	PZ-51I	0.1	0.061	4	No	7	0.09443	0.01474	85.71	None	No	0.008	NP (NDs)
Fluoride (mg/L)	PZ-51S	0.1187	0.04559	4	No	6	0.08217	0.02663	0	None	No	0.01	Param.
Lead (mg/L)	BRGWC-25I	0.001	0.00011	0.0013	No	15	0.0009407	0.0002298	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-27I	0.001	0.000063	0.0013	No	15	0.0009375	0.0002419	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-29I	0.0005144	0.0002945	0.0013	No	14	0.0004221	0.0002025	7.143	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-30I	0.001	0.00011	0.0013	No	15	0.0009407	0.0002298	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-45	0.001	0.00026	0.0013	No	16	0.0008452	0.0003352	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-47	0.001	0.00012	0.0013	No	16	0.0008271	0.0003719	81.25	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-50	0.001	0.000085	0.0013	No	15	0.0005634	0.0004385	46.67	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-52I	0.001	0.000042	0.0013	No	15	0.0009361	0.0002474	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	PZ-51I	0.001	0.00017	0.0013	No	6	0.000755	0.0003843	66.67	None	No	0.0155	NP (normality)
Lithium (mg/L)	BRGWC-27I	0.0021	0.0012	0.089	No	15	0.00332	0.004748	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-29I	0.003686	0.003074	0.089	No	15	0.00338	0.0004523	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-30I	0.01628	0.01159	0.089	No	15	0.01393	0.003458	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-32S	0.0023	0.002	0.089	No	15	0.00386	0.004525	13.33	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-45	0.003584	0.002962	0.089	No	15	0.003273	0.000459	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-47	0.04398	0.04057	0.089	No	16	0.04228	0.002613	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-50	0.04437	0.03803	0.089	No	15	0.0412	0.004678	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-52I	0.00708	0.003138	0.089	No	15	0.005313	0.003385	6.667	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	PZ-51I	0.026	0.019	0.089	No	6	0.02067	0.002733	0	None	No	0.0155	NP (normality)
Lithium (mg/L)	PZ-51S	0.015	0.0012	0.089	No	6	0.0127	0.005634	83.33	None	No	0.0155	NP (NDs)
Mercury (mg/L)	BRGWC-25I	0.0002	0.000083	0.002	No	13	0.0001787	0.00005275	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-27I	0.0002	0.00005	0.002	No	13	0.0001767	0.0000569	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-29I	0.0002	0.00007	0.002	No	13	0.0001698	0.00005851	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-30I	0.0002	0.00007	0.002	No	13	0.0001686	0.00006029	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0002	0.00009	0.002	No	13	0.0001748	0.00004809	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	PZ-51I	0.0002	0.000099	0.002	No	6	0.0001832	0.00004123	83.33	None	No	0.0155	NP (NDs)

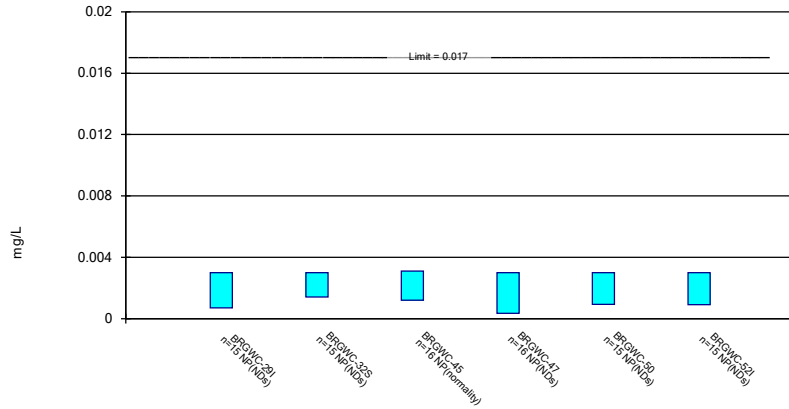
# Confidence Intervals - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 12/2/2021, 10:32 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Molybdenum (mg/L)	BRGWC-25I	0.01	0.00089	0.01	No	14	0.007393	0.004278	71.43	None	No	0.01	NP (normality)
Molybdenum (mg/L)	BRGWC-30I	0.01	0.0022	0.01	No	14	0.008141	0.003705	78.57	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-45	0.01	0.00076	0.01	No	15	0.009384	0.002386	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-50	0.01	0.0033	0.01	No	14	0.008964	0.002642	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BRGWC-52I	0.01	0.0012	0.01	No	14	0.006171	0.00384	42.86	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-25I	0.005	0.0021	0.05	No	15	0.004807	0.0007488	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-27I	0.00383	0.00233	0.05	No	15	0.003687	0.001248	26.67	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BRGWC-29I	0.0058	0.0039	0.05	No	15	0.004807	0.001439	46.67	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-30I	0.005	0.0038	0.05	No	15	0.004567	0.0009131	73.33	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-32S	0.12	0.0019	0.05	No	16	0.05476	0.05532	25	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-45	0.005	0.0029	0.05	No	16	0.004869	0.000525	93.75	None	No	0.01	NP (NDs)
Selenium (mg/L)	BRGWC-47	0.005	0.0017	0.05	No	16	0.00385	0.001557	62.5	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-50	0.005	0.002	0.05	No	15	0.003747	0.001348	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-29I	0.0005	0.00016	0.002	No	15	0.0002213	0.0001141	13.33	None	No	0.01	NP (normality)

### Non-Parametric Confidence Interval

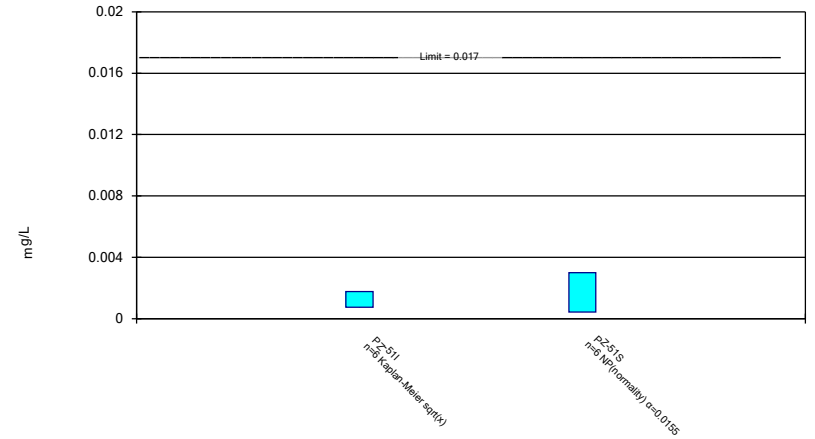
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

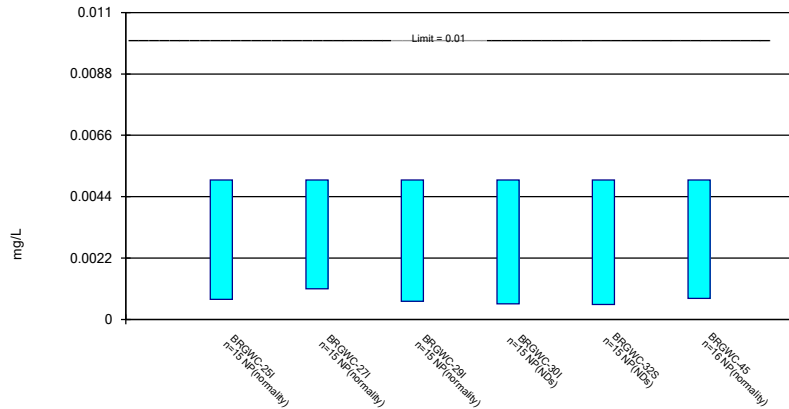
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Antimony Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

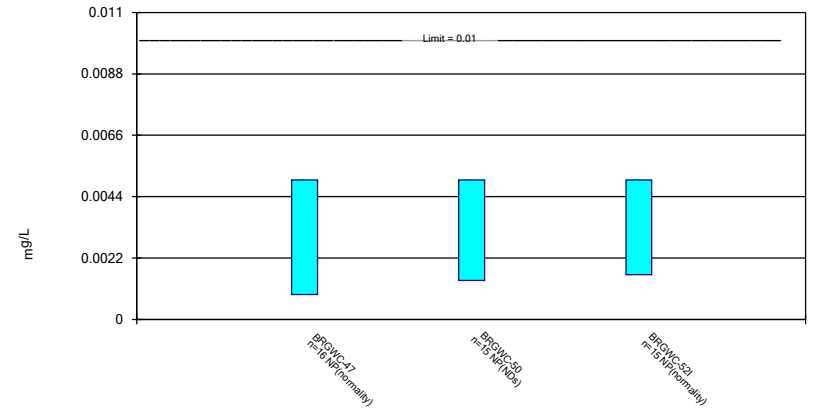
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

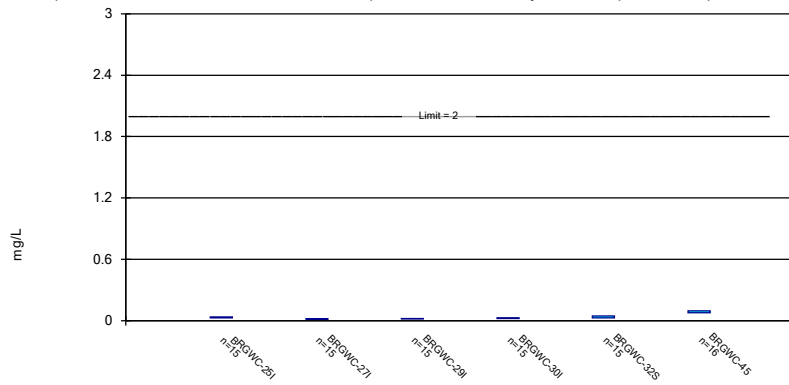
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

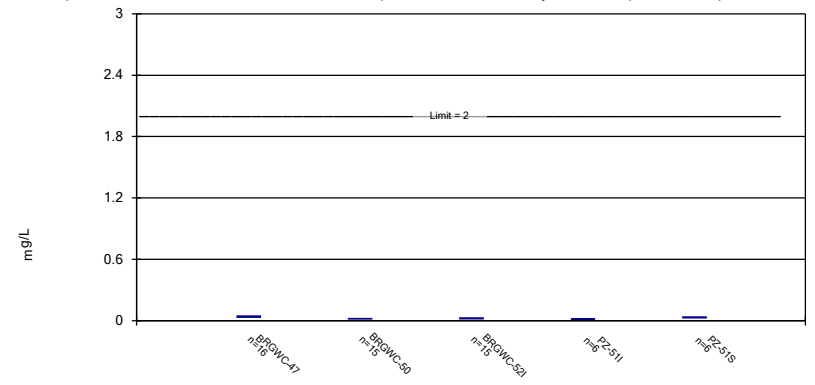
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

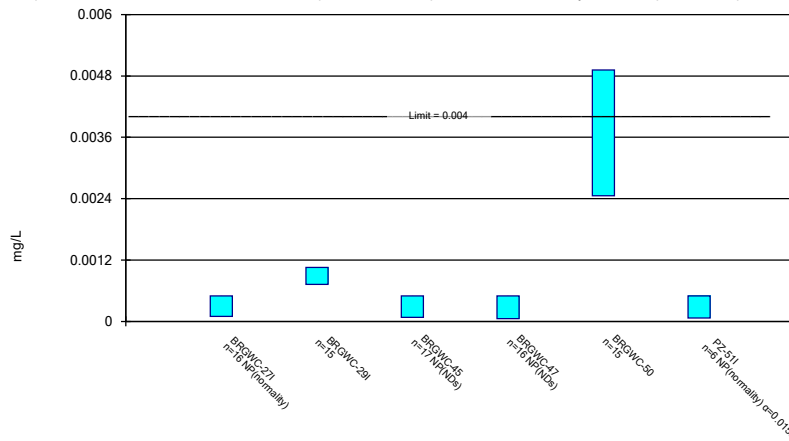
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

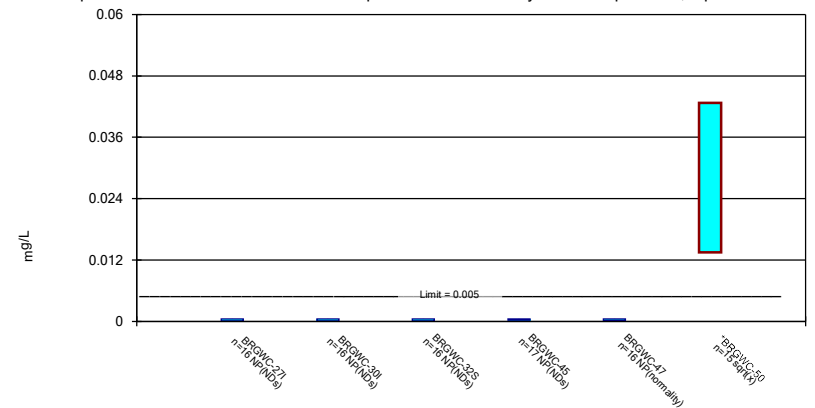
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

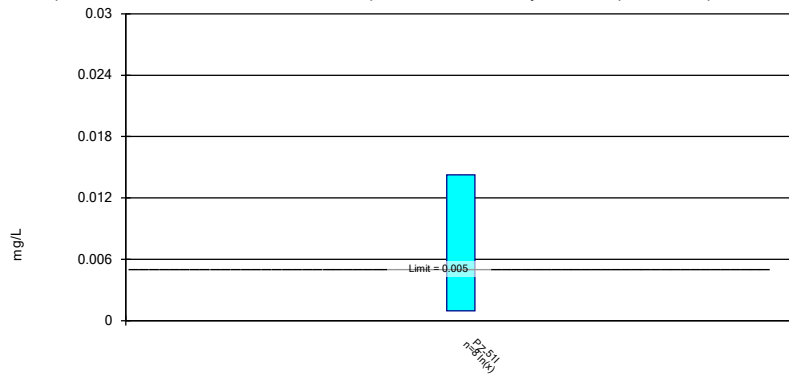
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

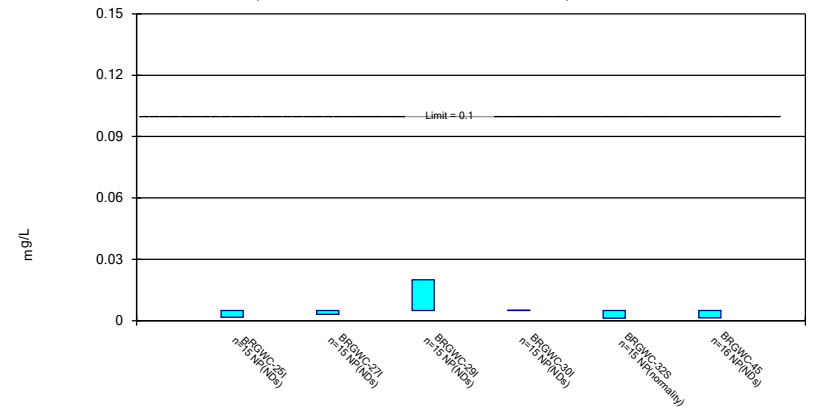
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

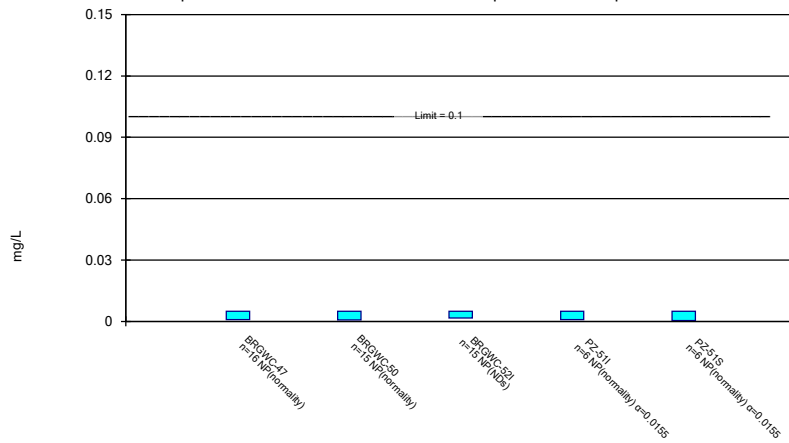
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

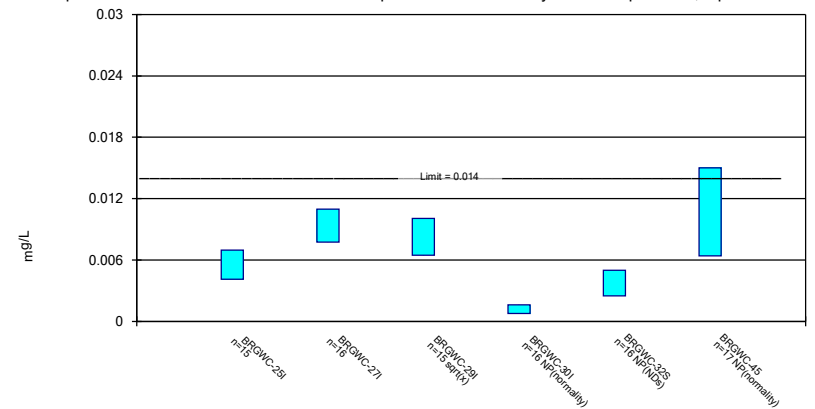
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

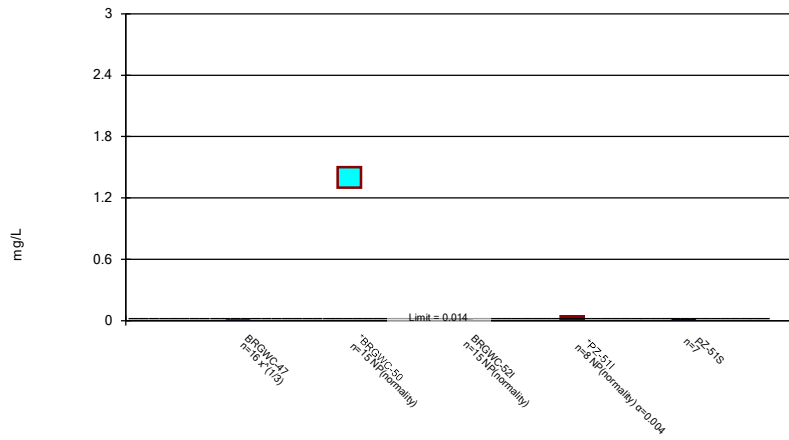
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

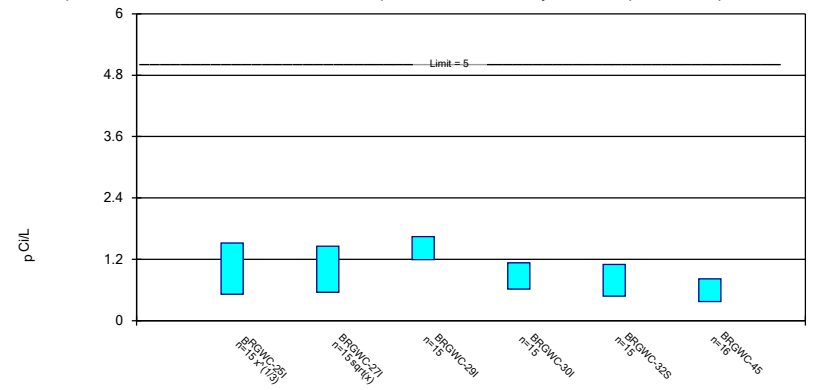
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

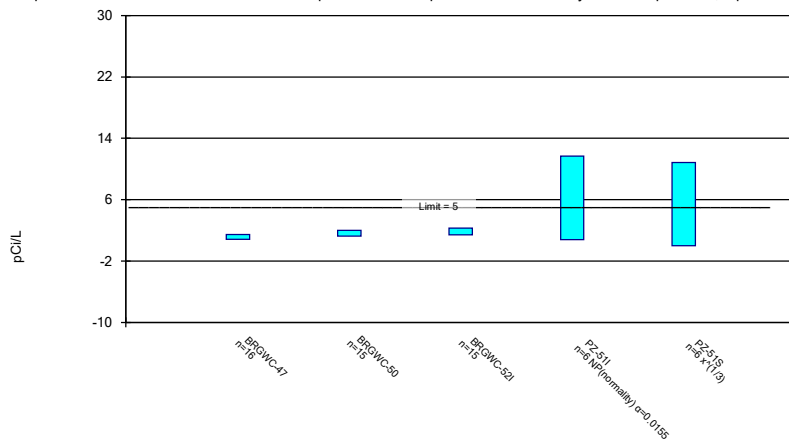
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

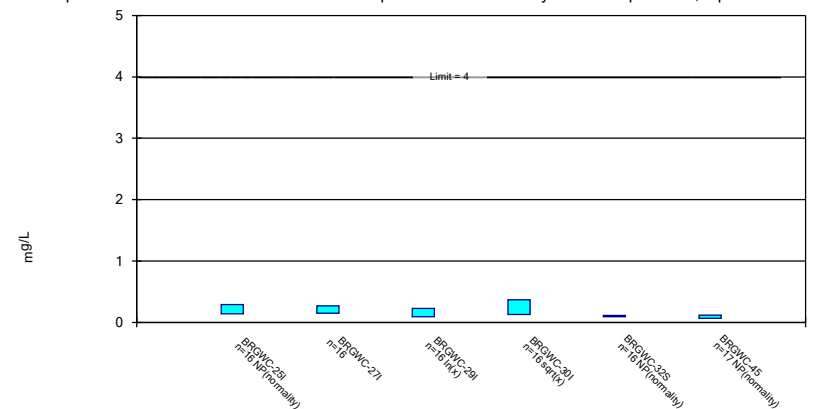
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2021 10:29 AM View: 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.

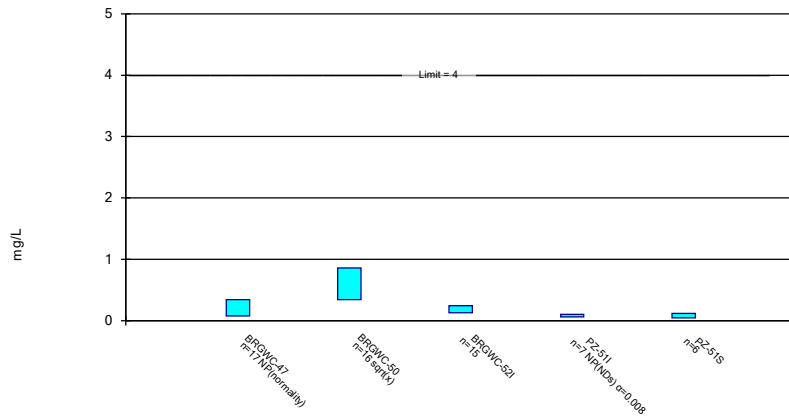


Constituent: Fluoride Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP



### Parametric and Non-Parametric (NP) Confidence Interval

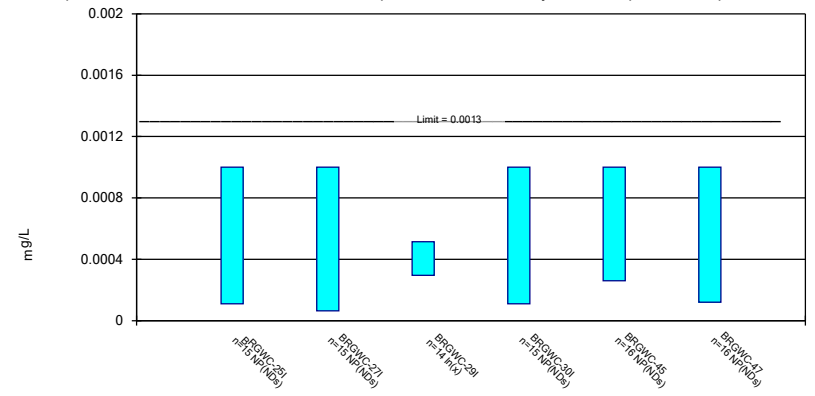
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

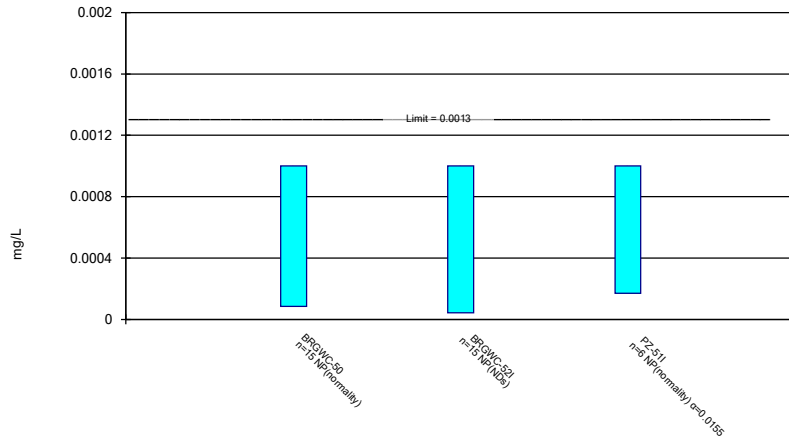
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 12/2/2021 10:29 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

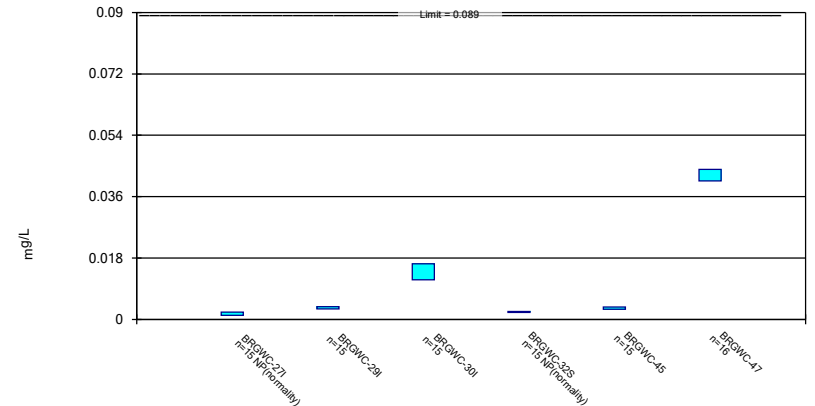
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

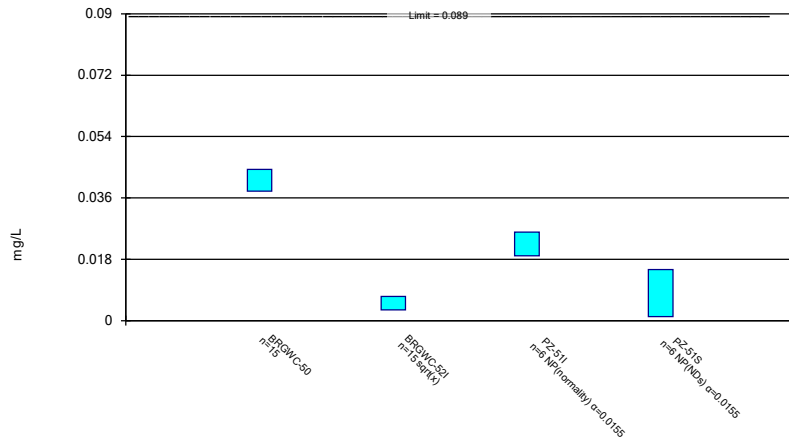
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

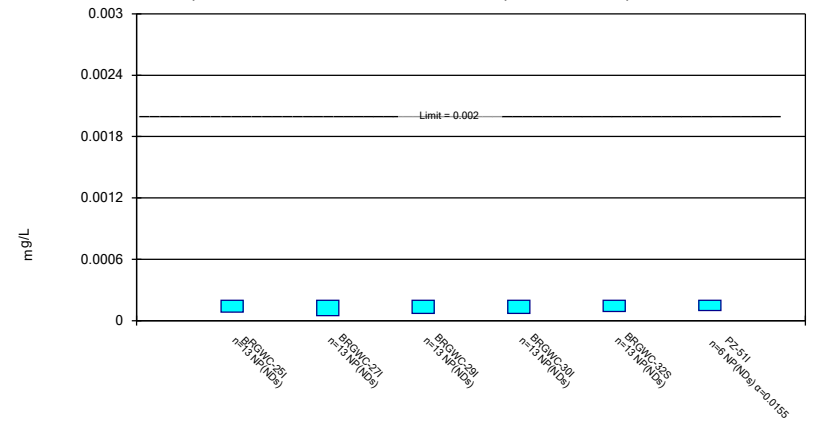
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

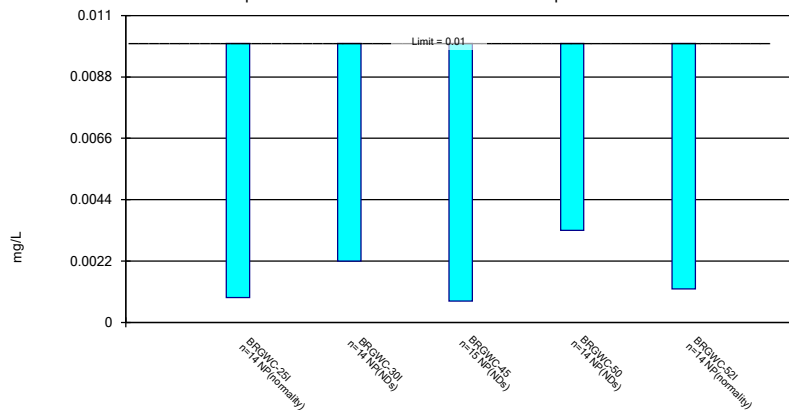
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

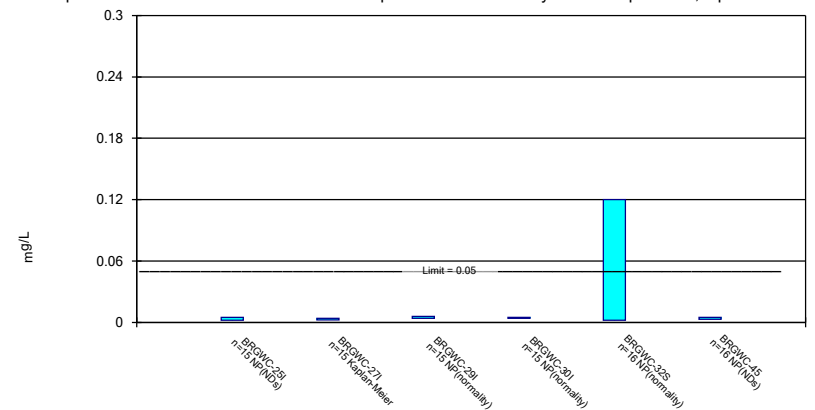
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

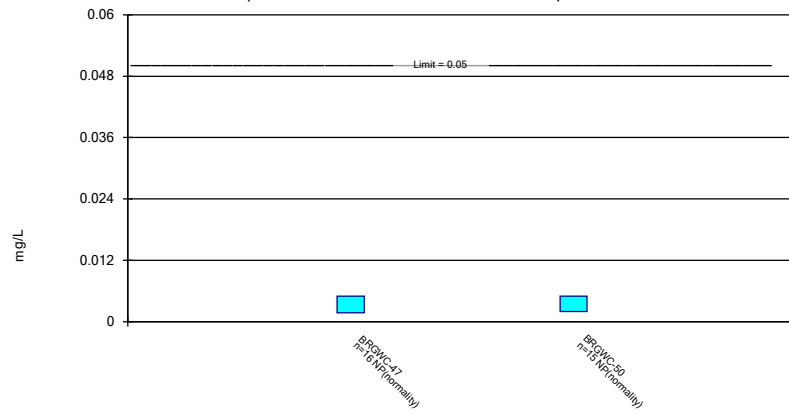
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

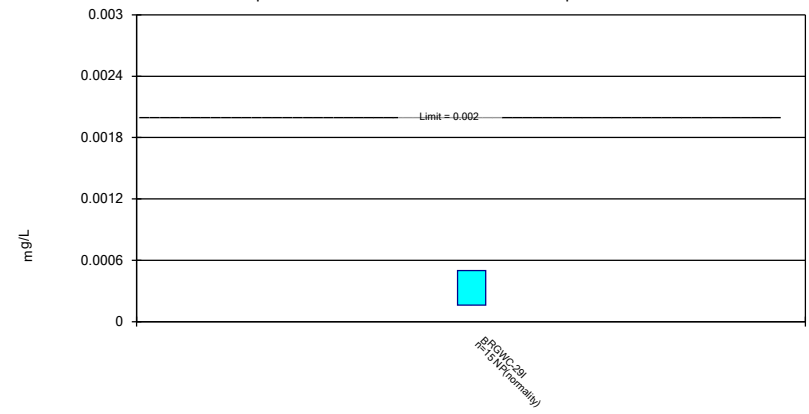
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
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 12/2/2021 10:30 AM View: Confidence Intervals Pond B,C,D  
Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE I.

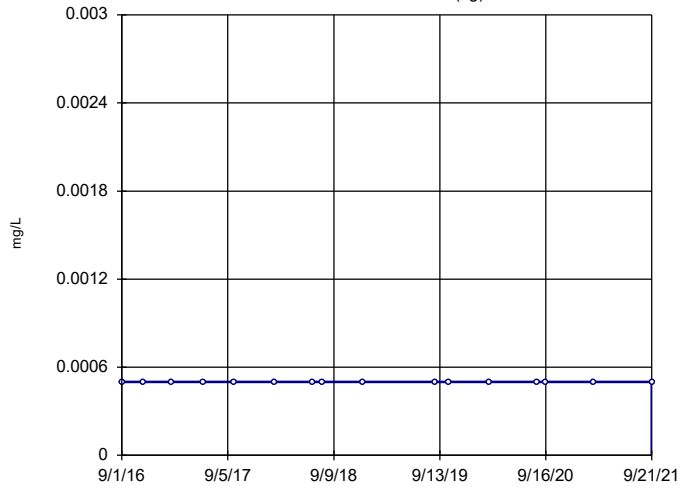
# Trend Tests - Confidence Interval Exceedances - All Results (No Significant)

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 12/2/2021, 10:20 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cadmium (mg/L)	BRGWA-12I (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-12S (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-23S (bg)	0	1	53	No	15	86.67	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-2S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-5S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWA-6S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Cadmium (mg/L)	BRGWC-50	-0.01101	-46	-53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12I (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-12S (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-23S (bg)	-0.0007052	-26	-53	No	15	13.33	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2I (bg)	0	11	53	No	15	80	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-2S (bg)	-0.0004551	-45	-53	No	15	13.33	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5I (bg)	-0.000186	-42	-43	No	13	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-5S (bg)	0	16	53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWA-6S (bg)	0	-9	-53	No	15	66.67	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-50	0	10	53	No	15	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	PZ-511	0	-1	-21	No	8	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

BRGWA-12I (bg)

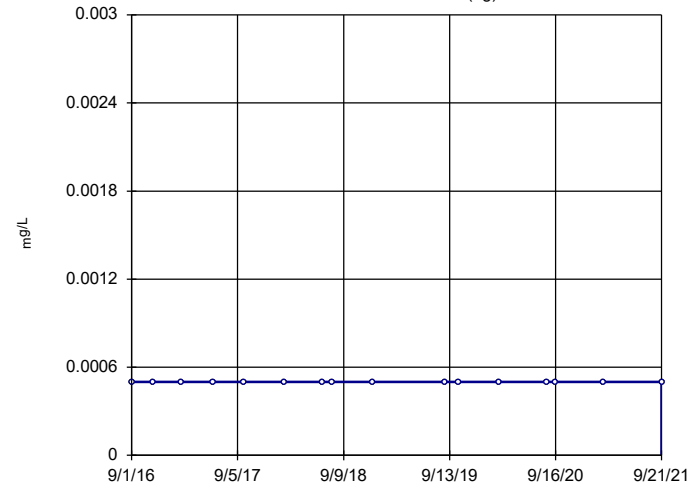


n = 16  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-12S (bg)

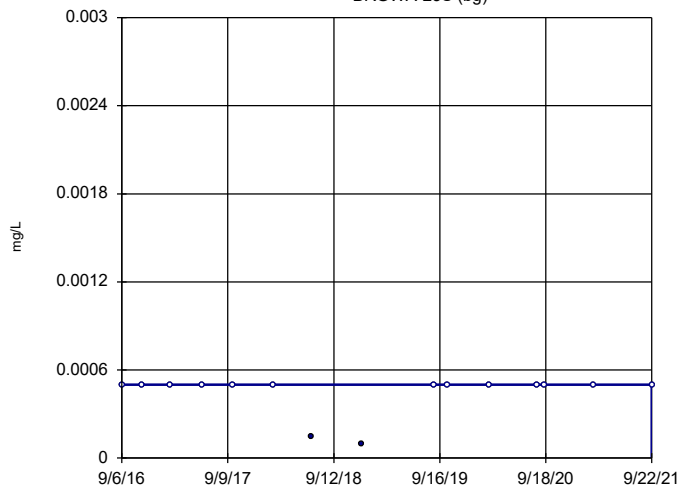


n = 16  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-23S (bg)

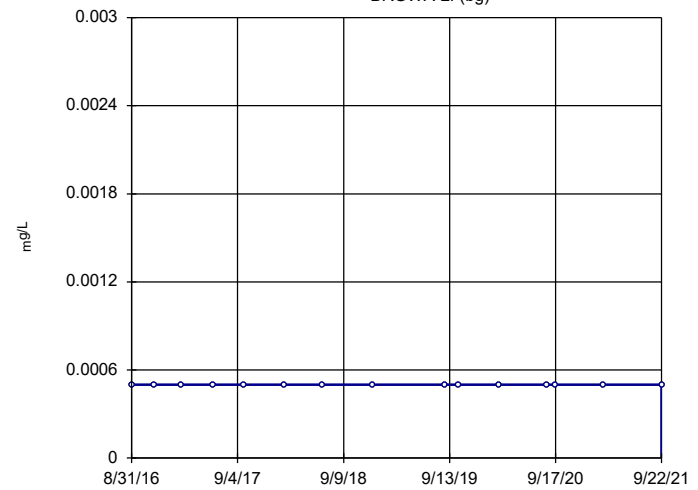


n = 15  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 1  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

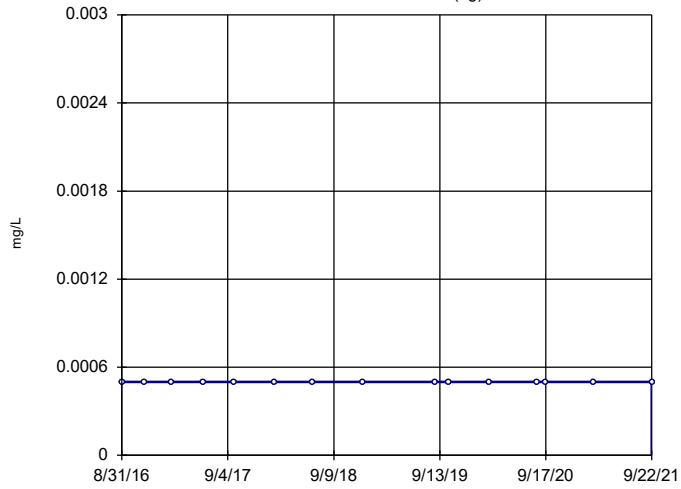
BRGWA-2I (bg)



n = 15  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

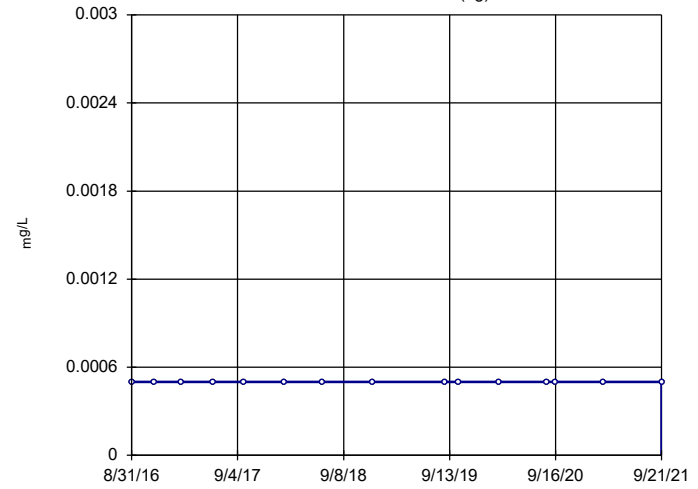
### Sen's Slope Estimator BRGWA-2S (bg)



n = 15  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

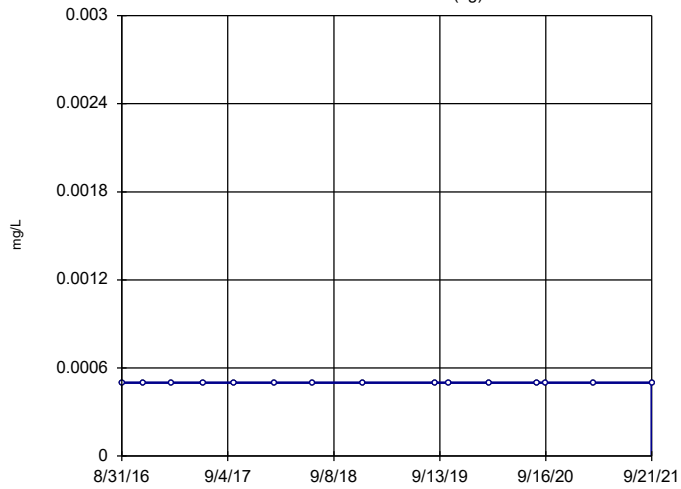
### Sen's Slope Estimator BRGWA-5I (bg)



n = 15  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

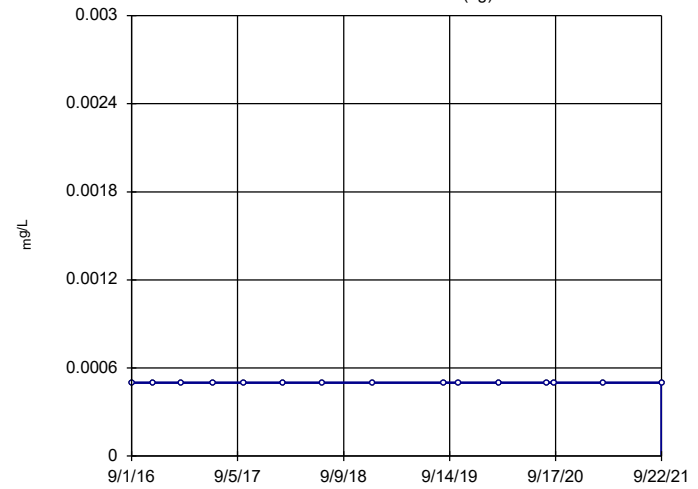
### Sen's Slope Estimator BRGWA-5S (bg)



n = 15  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator BRGWA-6S (bg)

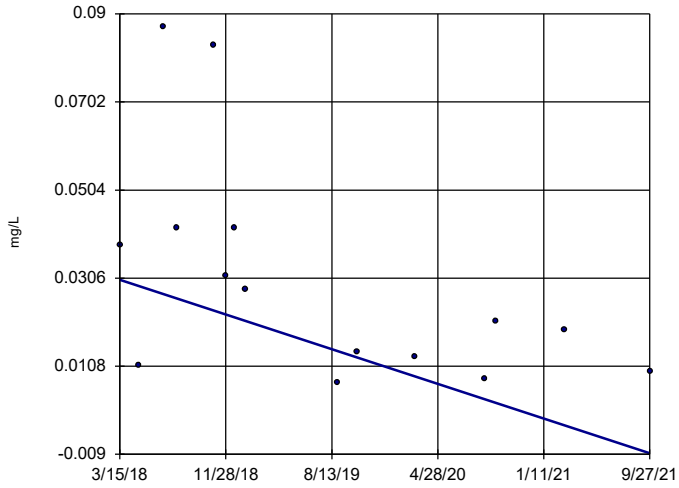


n = 15  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 0  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-50



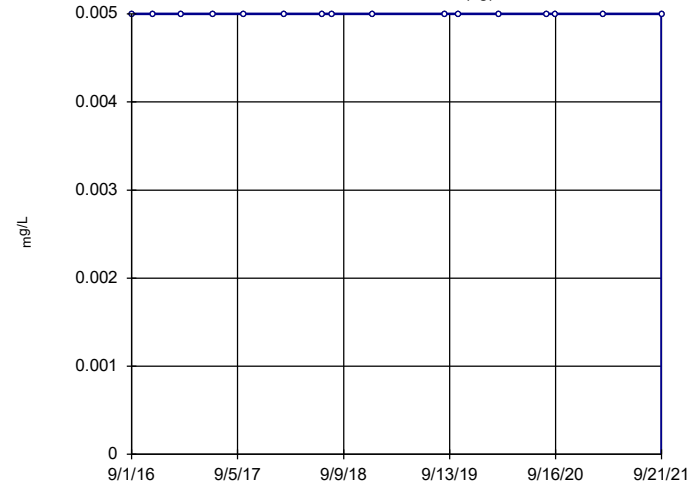
n = 15  
 Slope = -0.01101 units per year.  
 Mann-Kendall statistic = -46  
 critical = -53  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-12I (bg)



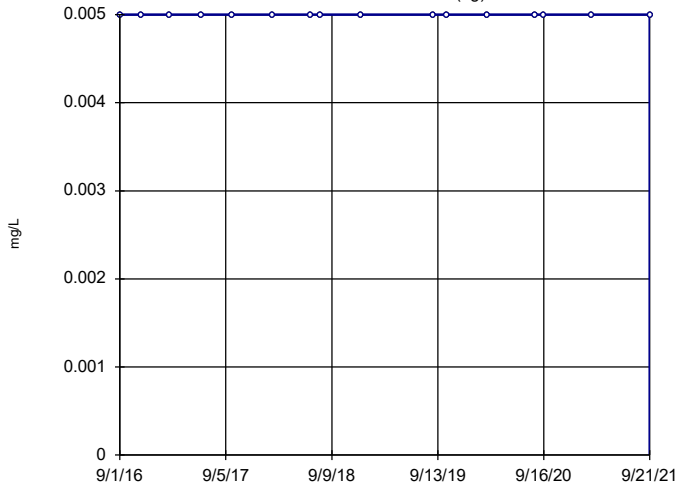
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Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

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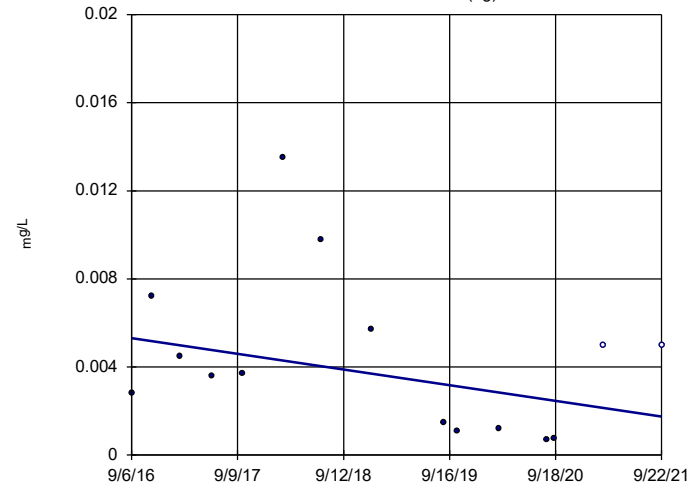
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

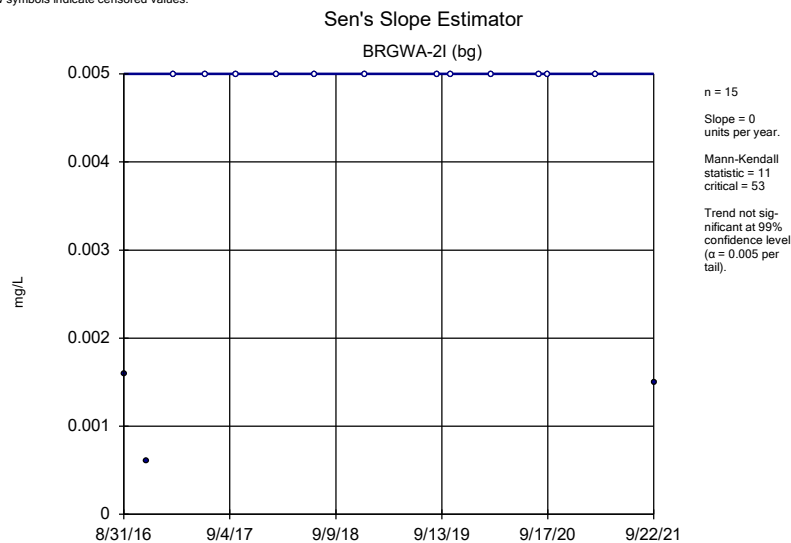
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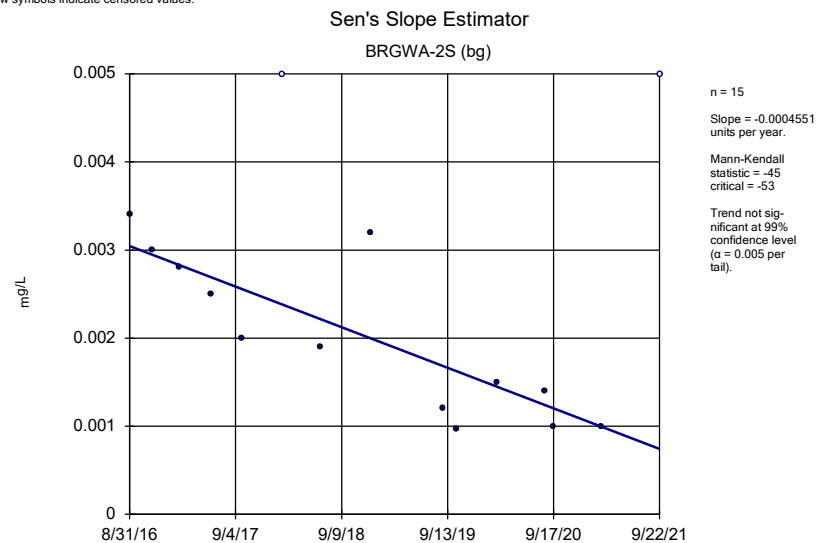
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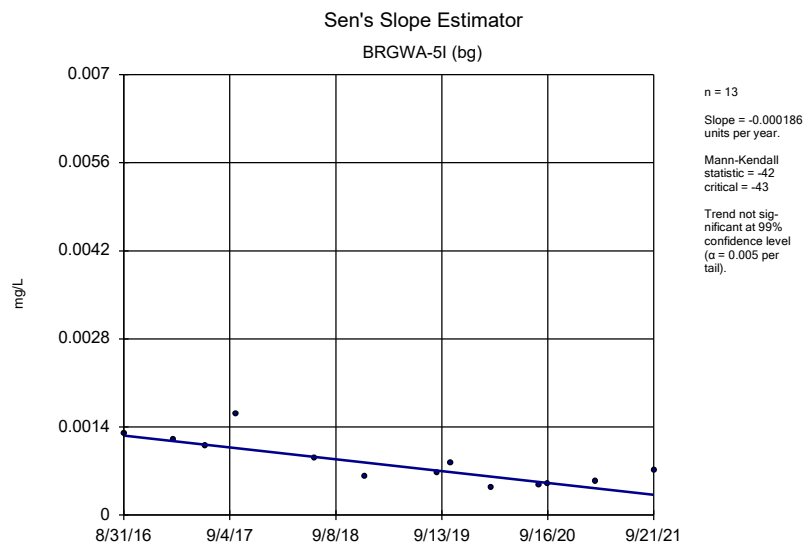




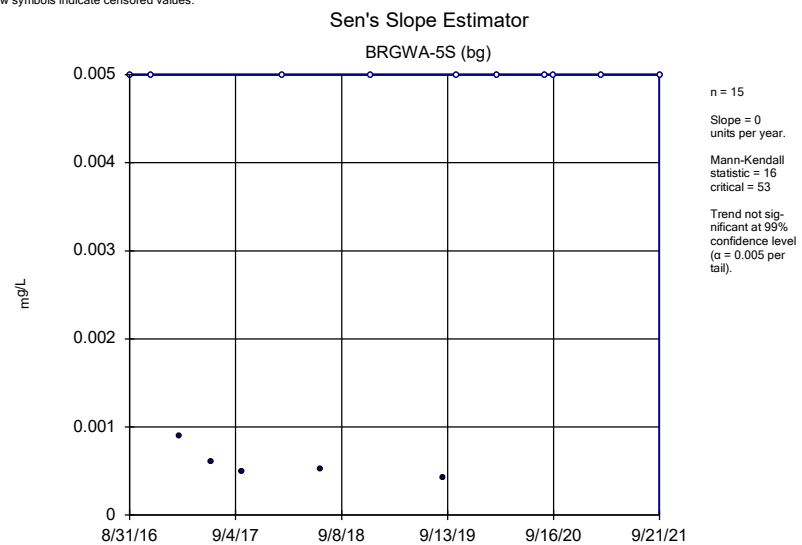
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Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP



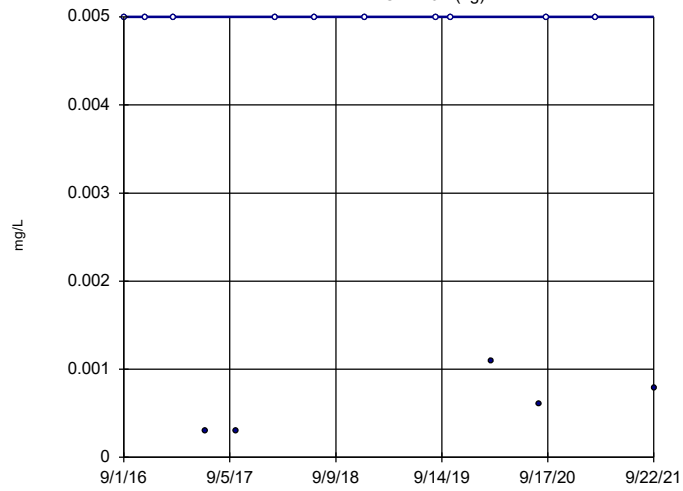
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Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

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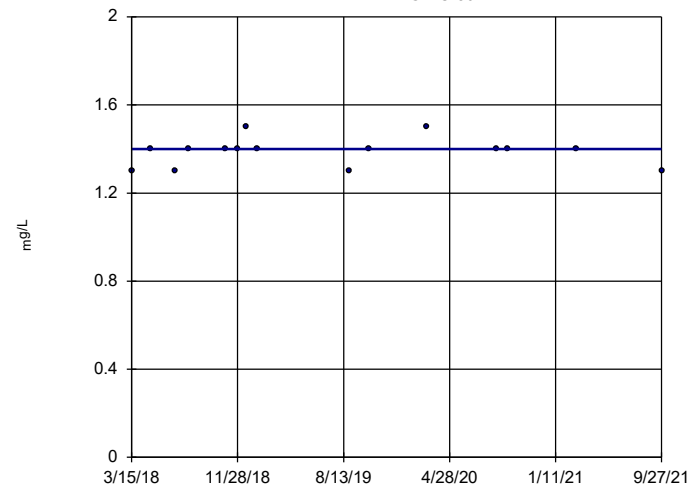


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units per year.  
Mann-Kendall  
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nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

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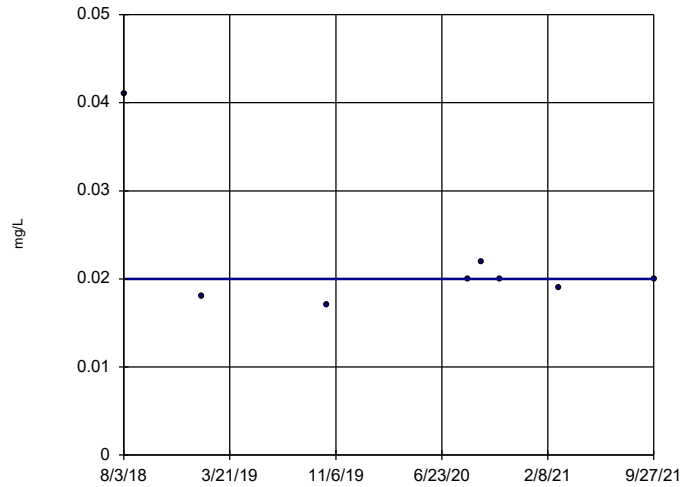


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units per year.  
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nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

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PZ-511



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confidence level  
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tail).

Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP

**APPENDIX C**

**SEMI-ANNUAL REMEDY  
SELECTION AND  
DESIGN PROGRESS  
REPORT**



**REPORT**

# Semi-Annual Remedy Selection and Design Progress Report

*Plant Branch Ash Ponds B, C, and D*

Submitted to:

**Georgia Power Company**

241 Ralph McGill Boulevard, Atlanta, Georgia 30308

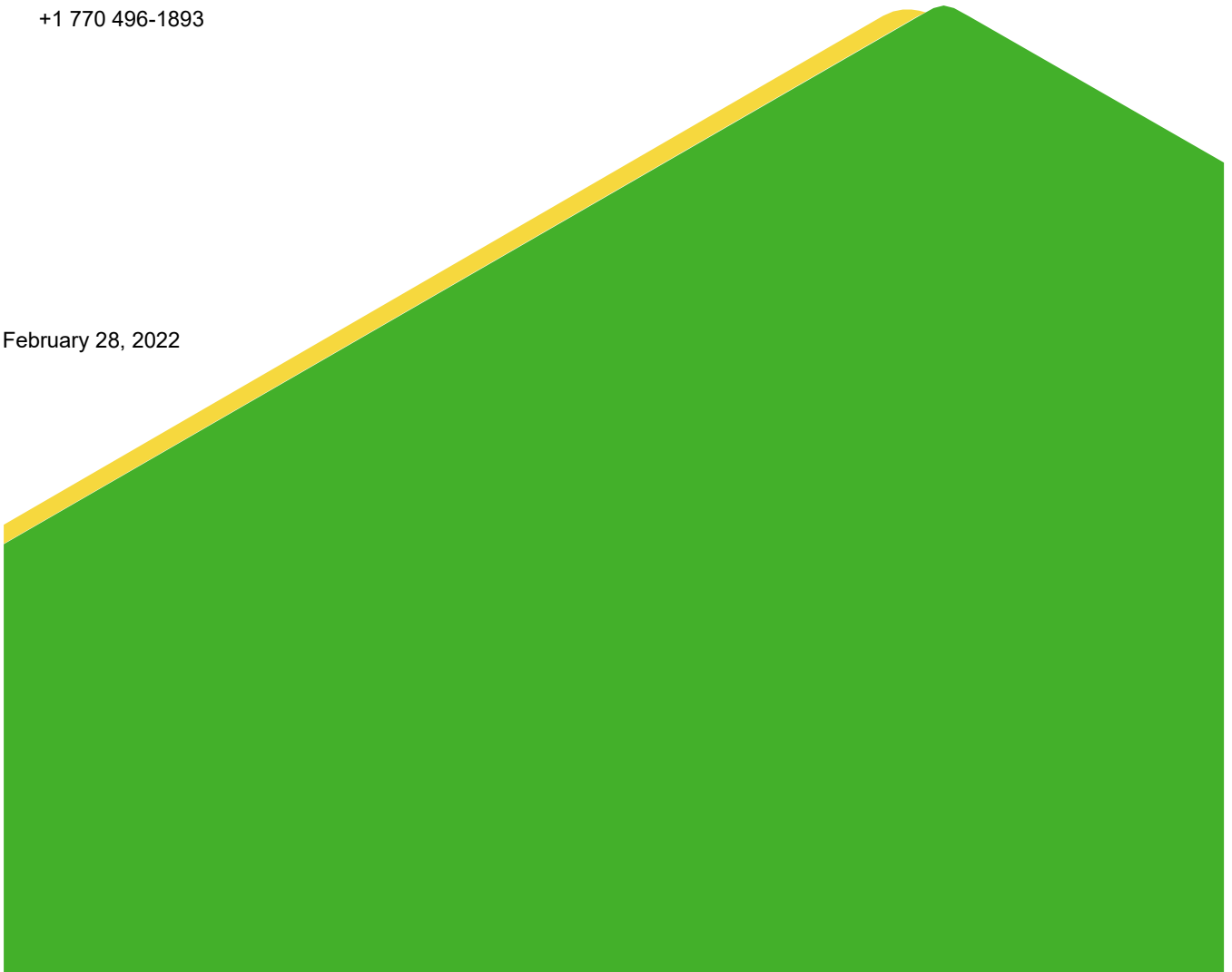
Submitted by:

**Golder Associates USA Inc.**

5170 Peachtree Road Building 100 Suite 300, Atlanta, Georgia, USA 30341

+1 770 496-1893

February 28, 2022



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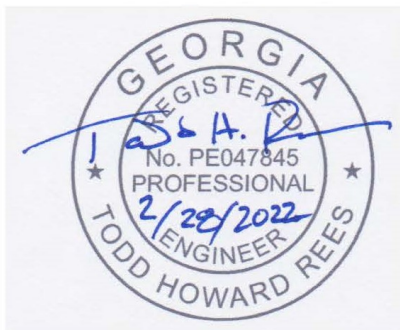
## Signature

This *Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company – Plant Branch Ash Pond B, C, and D (AP-BCD)*, has been prepared in accordance with the United States Environmental Protection Agency coal combustion residual rule, specifically 40 Code of Federal (CFR) 257.97(a) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a).

### Golder Associates USA Inc.



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*Georgia Licensed Professional Engineer No. 047845*

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## 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) rule [40 Code of Federal Regulations (CFR) 257 Subpart D]; published in 80 FR 21302-21501, April 17, 2015 (CCR Rule; EPA, 2015), Golder Associates USA Inc. (Golder) has prepared this *Semi-Annual Remedy Selection and Design Progress Report* (Semi-Annual Progress Report) for Georgia Power Company (Georgia Power) Plant Branch Ash Ponds B, C, and D (AP-BCD or Site). Specifically, this Semi-Annual Progress Report has been prepared pursuant to 40 CFR § 257.97(a) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). For ease of reference, the US EPA CCR rule is cited within this report.

Plant Branch formerly operated as a coal-fired power plant since the 1960s until its retirement in 2015. Plant Branch is no longer active and is decommissioned. A site location map is included as Figure 1. Because Plant Branch ceased producing electricity prior to April 2015, AP-BCD is not subject to the US EPA CCR Rule.

Pursuant to § 257.96, Georgia Power initiated an Assessment of Corrective Measures (ACM) for AP-BCD on July 9, 2020, to address the occurrence of cadmium (Cd) and cobalt (Co) in groundwater at statistically significant levels (SSLs). Subsequently, Georgia Power completed an ACM report on December 4, 2020, and posted it to the CCR compliance website in January 2021 (Golder, 2020a).

As requested by EPD, an updated well survey of potential groundwater wells within a two-mile radius of Plant Branch was conducted and consisted of reviewing federal, state, and county records, and online sources. The findings from this survey are consistent to the previous well survey conducted in 2020 (NewFields, 2020). Federal, state and county agencies were contacted. The county health departments and Sinclair Water Authority did not respond to requests for information. No additional wells were identified in the updated survey. The 2021 well survey is included in Appendix A.

In addition to the assessment monitoring program at the Site, Georgia Power conducted a human health and ecological risk evaluation to evaluate constituents that are present at SSLs in groundwater (i.e., Cd and Co) 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 constituents 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, 2020a). Cobalt and Cd data collected since March 2020 are consistent with data used in the risk evaluation; therefore, the conclusions provided in the 2020 Risk Evaluation Report are supported by current conditions.

Pursuant to 40 CFR 257.97, Georgia Power is evaluating the potential corrective measures presented in the ACM report to identify a remedy or combination of remedies as soon as possible. The following corrective measures are potentially feasible for use at AP-BCD:

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment (Pump and Treat)
- In-Situ Solidification/Stabilization (ISSS)
- Monitored Natural Attenuation (MNA)

- Permeable Reactive Barrier (PRB)
- Phytoremediation
- Subsurface Vertical Barrier Walls.

A comparative screening of the corrective measures as presented in the ACM report is provided in Table 1. As required by the rules, this Semi-Annual Progress Report describes the progress made in selecting and designing a remedy.

The following remedial alternatives were not retained for further evaluation.

- **ISSS:** In-situ stabilization is a technique that uses mixing of the CCR with additives to solidify the material in place and reduce future dissolution of CCR compounds from the stabilized material. This option is not retained for further analysis because AP-BCD will be closed by removal.
- **PRB:** PRB technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. PRB walls are typically keyed into the bedrock with a zero valent iron (ZVI)-carbon matrix or solid carbon (bio-barrier) that are most viable for the removal of Co and Cd. While the shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. Additionally, because there is limited space available downgradient of wells where SSL exceedances exist, PRB has been removed from further consideration.
- **Phytoremediation:** 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 (proprietary) TreeWell® phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. Due to the depth of groundwater and the limited physical space for installation of a phytoremediation system between the AP-BCD and the adjacent surface water bodies, phytoremediation has been removed from consideration for groundwater corrective action at AP-BCD.
- **Subsurface Vertical Barrier Walls:** 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. 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. Because AP-BCD will be closed by removal and thus would remove the source and any future migration from the source, the vertical barrier is not a suitable option at the site. In addition, there is limited space available for a barrier wall downgradient of wells where SSL exceedances exist, this option has been removed from further consideration.

The following options are retained for further evaluation.

- **Geochemical Approaches (In-Situ Injection):** This approach uses of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of Cd and Co. A targeted injection layout may result in decreased concentrations of Co



and Cd in groundwater below the Groundwater Protection Standards (GWPS). As such, this option is retained for further evaluation.

- **Hydraulic Containment (Pump and Treat):** This approach uses 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 [e.g., land application, CCR conditioning, etc.]. Pump and Treat (P&T) is a potentially viable interim corrective measure for Co and Cd in groundwater at Plant Branch AP-BCD and will be retained for further evaluation.
- **MNA:** 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. Therefore, MNA is a potentially viable corrective measure for Co and Cd in groundwater at Plant Branch AP-BCD and will be retained for further evaluation.

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Golder 2020a) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate during the 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 US EPA guidelines for MNA (USEPA 2007, 2015). 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 MNA guidance, summarized 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.

## 2.0 POND CLOSURE ACTIVITIES

Georgia Power retired Plant Branch in 2015 and began closure activities. Plant Branch will remove ash from four ash ponds (Ponds B, C, D, and E) and consolidate the ash in a new, lined onsite landfill. The closure of the AP-BCD in the manner described above provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. Corrective measures discussed in this semi-annual progress report are being evaluated to address SSLs in groundwater at the waste boundary.

### 3.0 SUMMARY OF RECENT WORK COMPLETED

The following section summarizes a series of field investigation activities and supplemental data collected since the previous *Semi-Annual Remedy Selection Progress Report* (Golder 2021a) in support of site characterization and delineation of Appendix IV SSLs, as well as evaluation of the corrective measures presented in the ACM Report. These data are used to evaluate the feasibility, mechanisms, rates, and stability of identified remedial alternatives for the selection of a remedy for groundwater impacts near AP-BCD.

The locations of the site monitoring wells and piezometers are shown on Figure 2. Table 2 provides a summary of construction details for each of the site wells and piezometers, respectively. Supporting details and documents (e.g., boring logs, well construction tables) have been previously submitted within separate well installation reports (Golder, 2020b; Golder, 2020c; Golder, 2021b). A potentiometric surface map illustrating the September 2021 potentiometric surface elevations is provided on Figure 3.

#### 3.1 Nature and Extent Delineation

The July 2021 through December 2021 assessment monitoring groundwater data show SSLs of state and/or federal GWPS for Cd and Co, as presented below. Details are provided in the 2021 *Semi-Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2022).

AP-BCD Statistically Significant Level Exceedances	
AP-BCD Monitoring Network	Appendix IV Parameter
BRGWC-50	Cobalt, Cadmium
PZ-51I	Cobalt

Based on GA EPD guidance, wells with SSLs were further evaluated by Groundwater Stats Consulting (GSC) using the Sen’s Slope/Mann Kendall trend test (Appendix B). The full report generated from the analyses is provided in Appendix C of the 2021 *Semi-Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2022).

The time series plots for Cd and Co included in Appendix C of the 2021 *Semi-Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2022) show a decreasing concentration trend for Cd, and a stable concentration trend for Co in well BRGWC-50.

#### Horizontal and Vertical Delineation Well and Piezometer Installation

Two piezometers (PZ-50D and PZ-51D) were installed in October 2020; four piezometers (PZ-57I, PZ-58I, PZ-60I, and PZ-61I) were installed in March 2021 to supplement the characterization of the nature and extent of SSLs for Cd and Co in BRGWC-50. The analytical data for these piezometers are included in Table 3. Additionally, PZ-59I was installed in March 2021 to refine groundwater flow direction. PZ-59I will be sampled and analyzed for Appendix III and Appendix IV constituents (Cd and Co), and major ions to allow for geochemical fingerprinting in February 2022.

Figures 4 and 5 present the September 2021 isoconcentration contours for Cd and Co in the vicinity of wells BRGWC-50 and PZ-51I. Figure 4 shows that the Cd concentration is below the GWPS in wells PZ-51I and PZ-50D. The nature and extent delineation for Cd at well BRGWC-50 is complete based on sampling results collected from vertical delineation piezometer (PZ-50D) and horizontal delineation piezometer (PZ-61I). Thus, delineation of Cd is complete at the Site.

Cobalt was detected above the GWPS at PZ-61I, which is the piezometer closest to Lake Sinclair as shown in Figure 5. To delineate the concentration of Co downgradient of PZ-61I, surface water samples were collected from Lake Sinclair in September 2021. Sample location LR+9A is located immediately downgradient of BRGWC-50 and PZ-61I. The surface water sampling results show that Co is not detected in Lake Sinclair in the September 2021 event. Several other locations, upstream and downstream of LR+9A, were sampled for analysis of Co from Lake Sinclair. Cobalt was not detected at any of these locations; sampling results are provided in Table 6 of the *2021 Semi-Annual Groundwater Monitoring and Corrective Action Report* (Golder, 2022). Based on data collected to date, there are no impacts to surface water by constituents with SSLs at AP-BCD at Plant Branch. Therefore, horizontal delineation of Co at BRGWC-50 is complete based on results from samples collected from Lake Sinclair (LR+9A). Georgia Power will continue to collect surface water samples on a semi-annual basis.

Vertical delineation for Co at well BRGWC-50 is ongoing, pending additional data from piezometer PZ-51D. A minimum of four data points is necessary to complete the statistical analyses. To date, Co concentrations for three samples collected from PZ-51D are below the GWPS.

### Geochemical Evaluation

Groundwater samples were collected in September 2021 from AP-BCD detection and assessment wells (Table 2) and analyzed for major cations and anions (including iron, manganese, total alkalinity, bicarbonate/carbonate alkalinity, dissolved organic carbon, nitrate/nitrite, total hardness, potassium, sodium, and magnesium) in addition to routine Appendix III and IV parameters. Analytical results are shown in Table 3. Piper and Durov diagrams were generated using the major cation and anion data, total dissolved solids (TDS), and pH as are presented in Figure 6. Piper and Durov diagrams provide a graphical representation of chemical composition of groundwater based on major ion chemistry data; Durov diagrams also provide a representation of TDS and pH in addition to the parameters Piper diagrams use.

The Piper and Durov diagrams indicate that there is substantial variability in the groundwater composition across the wells of interest. The TDS of groundwater at the wells ranged from 88 to 2,600 milligrams per liter (mg/L) and pH ranged from 4.0 to 7.2. Water types were also variable, ranging from calcium bicarbonate and magnesium bicarbonate type in areas closer to AP-B (as shown by PZ-44) to a calcium and magnesium sulfate type of water (as shown by BRGWC-50 and wells in the vicinity). As shown on the diagrams, PZ-44 differs substantially both in water quality and having a low TDS as compared to wells in the vicinity of BRGWC-50. Along the flow transect extending from PZ-44 (side-gradient of AP-B) to PZ-61I (near the lake), the increase in calcium and sulfate (and TDS) concentrations would indicate an alternate source for sulfate in the detection and assessment wells downgradient of AP-B. Wells with sulfate concentrations greater than 1,000 mg/L have pH < 5, except for PZ-50D (Table 3).

## 4.0 UPDATED SITE CONCEPTUAL SITE MODEL

The additional data collected since the issuance of the ACM Report (Golder, 2020a), and presented herein, together with new data evaluation tools (described in the previous semi-annual remedy selection report) and interpretations allow the development of a more refined CSM.

Data collected since submitting the ACM report is consistent with previous data (Geosyntec, 2020b). Current data include the September 2021 potentiometric surface for the uppermost aquifer, which shows groundwater flow generally to the east, south, and west from Ponds B, C, and D. The water elevation at PZ-59I is approximately the same elevation as PZ-58I and shows a flow direction towards the well cluster at PZ-51, PZ-61, and Lake

Sinclair. The latest water level data collected in 2021 confirmed groundwater flow in the uppermost aquifer to be consistent with the CSM. However, the addition of PZ-591 indicates that a flow component from an upgradient source other than AP-BCD could potentially affect the groundwater quality at several downgradient wells, including BRGWC-50 and PZ-51. The potential effect of an alternate source on the groundwater quality will be investigated in 2022.

The current data collected during this reporting period generally confirms data as presented in the CSM, though as described above, the potentiometric surface was refined in the vicinity of BRGWC-50. New data collected during this reporting period support the following observations.

- Groundwater TDS concentrations are variable downgradient of AP-BCD ranging from a few hundred mg/L to approximately 1,600 mg/L in September 2021 (Table 3). The range indicates variability in major ion concentrations in the vicinity of BRGWC-50, which supports flow paths from both the ash pond and an alternate source. Additional drilling and sampling proposed in 2022 is expected to provide new data and interpretations on the occurrence of cobalt and cadmium in the vicinity of wells with SSLs near AP-BCD.
- Cobalt concentrations are stable, while Cd concentrations are decreasing at well BRGWC-50 (Appendix B).
- Cobalt and Cd iso-concentration plots show lower concentrations in the upgradient area, that is towards AP-BCD, and the higher concentrations are limited to a small area near BRGWC-50 (Figures 4 and 5).
- Spatial delineation of Co and Cd are completed by onsite wells upgradient and downgradient of BRGWC-50 or by downgradient sampling of surface water from Lake Sinclair (Figures 4 and 5).
- Cobalt and Cd concentrations appear to be related to relatively lower pH and higher sulfate in groundwater (Table 3).
- Groundwater composition ranges from calcium-magnesium-sulfate type water to calcium-magnesium-bicarbonate type water in the vicinity of well BRGWC-50 (Figure 6).

## 5.0 CORRECTIVE MEASURES ALTERNATIVES

Based on the data collected to date, three of the seven potential corrective measures being evaluated for AP-BCD will be retained for further evaluation. Table 1 presents a summary of each of the remedial alternatives presented in the ACM Report (Golder 2020a). Table 4 provides a summary of additional data to be collected. The retention evaluation (Retained for Further Evaluation or Not Retained) for each potential remedial alternative is included on Table 1. The following three remedial alternatives have been retained for further consideration:

- **Geochemical Approaches (In-Situ Injection)**
- **Hydraulic Containment (Pump and Treat)**
- **MNA**

## 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 pond closure by excavation and consolidation of CCR, temporary changes in site conditions may occur that must be considered as part of remedy selection. Georgia Power has initiated activities as outlined in the ACM Report (Golder, 2020a) to support the groundwater remedy

selection process and address potential changes in site conditions as appropriate. The adaptive site management approach toward remedy selection 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 further evaluate the feasibility of each corrective measure proposed in the ACM Report (Golder, 2020a).

Supplementary data collection and evaluation activities proposed to be completed are presented on Table 4, with the key elements summarized below.

- A conceptual-level feasibility study of applied corrective measures will be performed to evaluate the potential radius of influence and determine conceptual layouts of geochemical injections in target areas.
- Groundwater samples will be collected from selected wells near BRGWC-50 (the initial detection well with SSLs for Co and Cd) for jar/column test and general chemistry. The purpose of this analysis will be to determine the viability of in-situ injections for remedy selection using potassium bicarbonate.
- To characterize the area between BRGWC-52I and BRGWC-50, two piezometers (PZ-62I and PZ-63I) are proposed to the southeast of BRGWC-50 (Figure 7). These piezometers will be screened at similar depth intervals as the transitionally weathered rock zone that is observed at BRGWC-50, PZ-51I, and the other delineation piezometers in this area (approximately 50-60 feet below ground surface). The two new piezometers will be sampled during the regularly scheduled February 2022 semi-annual sampling event.
- For the purposes of groundwater delineation upgradient of the BRGWC-50 area, groundwater samples will be collected from existing site piezometer (PZ-59I) and proposed site piezometers (PZ-62I and PZ-63I) and analyzed for Appendix III and targeted Appendix IV constituents (Cd and Co), and major ions to allow for geochemical fingerprinting. Piezometer locations are included on Figure 7. This is also intended to evaluate alternate sources for Co and Cd in groundwater at the BRGWC-50 area.

Georgia Power will continue to prepare semi-annual progress reports to document AP-BCD groundwater conditions, results associated with additional data collection, and update the progress in selecting and designing a groundwater remedy in accordance with § 257.97(a). Georgia Power will include the semi-annual progress reports in routine groundwater monitoring and corrective action reports to meet the requirements of § 257.105(h)(12), § 257.106(h)(9), and § 257.107(h)(9), respectively.

## 7.0 REFERENCES

Geosyntec, 2020a. Risk Evaluation Report Plant Branch Ash Pond BCD, Geosyntec Consultants, December 2020.

Geosyntec Consultants, 2020b. Hydrogeologic Assessment Report Revision 01, Georgia Power – Plant Branch, Putnam County, Georgia. Submitted to Southern Company Services in November 2020.

Golder 2020a. *Assessment of Corrective Measures Report – Plant Branch AP-BCD*, Golder Associates Inc., December 4, 2020.

Golder 2020b. *Well Installation Report – Addendum, Georgia Power Company-Plant Branch, Ash Pond BCD*, Golder Associates Inc., Revised September 2020

Golder 2020c. *Piezometer Installation Report for Surface Impoundment, Ash Pond BCD*, Golder Associates Inc., November 20, 2020

Golder 2021a. *Semi-Annual Remedy Selection and Design Progress Report, Plant Branch, Ash Pond BCD*, Golder Associates, Inc., July 2021.

Golder 2021b. *Piezometer Installation Report for Surface Impoundment, Ash Pond BCD*, Golder Associates Inc., June 03, 2021.

Golder 2022. *Semi-Annual Groundwater Monitoring and Corrective Action Report, Plant Branch, Ash Pond BCD*, Golder Associates, Inc., February 2022.

NewFields 2020. *Well Survey, Plant Branch Ash Ponds B, C, D and E, Putnam County*, NewFields, March 05, 2020.

US EPA. 2007, 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81, April 2015.

# TABLES

**TABLE 1 – EVALUATION OF REMEDIAL TECHNOLOGIES – AP-BCD**  
Georgia Power Company – Plant Branch

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
<b>Geochemical Approaches (in situ injection)</b>	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of cadmium (Cd) and cobalt (Co). Under anaerobic conditions, Co would be attenuated within sparingly soluble sulfide minerals; this approach 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. In-situ chemical oxidation (ISCO) or 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. However, the main attenuation mechanism for Co and Cd is sorption, which is more dependent on pH than redox.	The effective immobilization of Co has been shown under aerobic and anaerobic conditions; however, the anaerobic approach (involving the injection of an electron donor together with iron or manganese and sulfur) 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 cadmium 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 secondary iron or manganese (oxy-) hydroxides (for aerobic approach), or electron donors and soluble iron or manganese and sulfur that can be consistently distributed (for anaerobic approach). 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 and Cd in groundwater.
<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 feature, 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 and Cd.	Pump and treat (P&T) is 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
<b>In-Situ Stabilization (ISS)</b>	In-situ stabilization is a technique that uses mixing of the CCR with additives to solidify the material in place and reduce future dissolution of CCR compounds from the stabilized material. Additives typically include Portland cement, and the solidification is completed in-situ using large diameter augers. CCR located beneath the water table would be isolated by ISS.	Medium to high, groundwater impacts would be addressed through the processes of natural attenuation. This alternative would isolate/secure the source in a bound matrix, and over time, allow the concentrations of Co and Cd in downgradient groundwater to decline to below applicable standards.	In-situ stabilization can be a reliable corrective measure for Co, and Cd in groundwater. Reliability is dependent on the permeability of the subsurface and mechanics of injection.
<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 and Cd 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).	Physical and chemical MNA mechanisms for cobalt and cadmium, 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 delineation 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.	Reliable as long as the aquifer conditions that result in Co and Cd 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 and/or Cd, or in combination with a second technology.



**TABLE 1 – EVALUATION OF REMEDIAL TECHNOLOGIES – AP-BCD**  
**Georgia Power Company – Plant Branch**

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Description	Performance	Reliability
<b>Permeable Reactive Barrier (PRB)</b>	<p>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 and Cd. 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 characterization. PRB walls are typically keyed into the bedrock. While the shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. 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.</p>	<p>PRBs have been shown to effectively address Co and Cd 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. Cadmium 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, especially related to Cd.</p>	<p>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.</p>
<b>Phyto Remediation (TreeWell®)</b>	<p>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 (proprietary) 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 and Co within the root zone as well as incidental uptake of dissolved Cd and Co with groundwater is expected to occur concurrent with hydraulic control.</p>	<p>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 and Co 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 currently not considered viable. However, changing site conditions may make the corrective measure viable for the area downgradient of AP-BCD. Additional aquifer testing and/or groundwater flow modeling may be needed to confirm the suitability at that time.</p>	<p>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.</p>
<b>Subsurface Vertical Barrier Walls</b>	<p>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; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective. 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.</p>	<p>Barrier walls are a proven technology for groundwater cutoff at impoundments. Slurry walls are limited by the depth of installation, which is approximately 90 feet below ground surface (bgs). However, site-specific geologic and technology-specific considerations specific to the former CCR Unit may limit this depth to shallower installations. Within the context of the former CCR Unit, 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 cobalt and cadmium 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.</p>	<p>Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is incidental and not the primary objective.</p>

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 Georgia Power Company – Plant Branch

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Ease of Implementation	Potential Impacts	Time Requirement to Begin/Complete
<b>Geochemical Approaches (in situ injection)</b>	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. Potential for clogging of aquifer matrix and/or injection well infrastructure. 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.	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.
<b>Hydraulic Containment (pump- and-treat)</b>	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 and Cd. 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.	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 and Cd.
<b>In-Situ Stabilization</b>	Easy to moderate, implementation of ISS will require a detailed design effort with bench scale testing to determine the appropriate amendment mix for a variety of overburden geologic materials. Pilot testing will also be needed to verify the ability of equipment to solidify material at depth. ISS has not been commonly used to stabilize entire ash units as part of a closure strategy.	Potential impacts of the remedy will be negligible.	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 and equipment.
<b>MNA</b>	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.	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.

**TABLE 1 – EVALUATION OF REMEDIAL TECHNOLOGIES – AP-BCD**  
 Georgia Power Company – Plant Branch

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)		
	Ease of Implementation	Potential Impacts	Time Requirement to Begin/Complete
<b>PRB</b>	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.	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.
<b>Phyto Remediation (TreeWell®)</b>	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.	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.
<b>Subsurface Vertical Barrier Walls</b>	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, which similar to PRBs, should be keyed into a low permeability layer such as a thick clay layer or bedrock. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater will 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.	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 long-term and coupled with other approaches.

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**Georgia Power Company – Plant Branch**

Corrective Measure	REGULATORY CITATION FOR CRITERIA: 40 CFR 257.96(C)(1)			
	Institutional Requirements	Other Env. Or Public Health Requirements	Relative Costs	Retention Evaluation
<b>Geochemical Approaches (in situ injection)</b>	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. An underground injection control (UIC) permit would be required to implement this corrective measure. No other institutional requirements are expected at this time.	None expected at this point. Potential for mobilization of redox-sensitive constituents exists during implementation of an anerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)	Remedial approach retained due to limited area of SSL exceedances, a targeted injection layout may result in decreased concentrations of Co and Cd in groundwater below the GWPS.
<b>Hydraulic Containment (pump-and-treat)</b>	Depending on the effluent management strategy, modifications to the existing National Pollutant Discharge Elimination System (NPDES) permit may be required or obtaining a new UIC permit may be needed if groundwater reinjection is chosen. In addition, deed restrictions may be required as long as groundwater conditions are above regulatory standards for unrestricted use.	Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending 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 cobalt and cadmium in groundwater at Plant Branch and will be retained for further evaluation.
<b>In-Situ Stabilization</b>	Deed restrictions may be necessary until groundwater concentrations are below GWPS. No other institutional requirements that may limit application of this technology 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 (typically Portland cement) are added to the subsurface, are unknown and would require pilot testing.	Medium, depending on permeability of aquifer.	Not retained for further analysis; strategy is deemed impractical because AP-BCD will be closed by removal.
<b>MNA</b>	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Little to no physical disruption to remediation areas and no adverse construction related impacts are expected on the surrounding community.	Low to medium	Under current conditions, attenuation processes for Cd and Co are already occurring as evidenced by groundwater data from delineation 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.
<b>PRB</b>	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other 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 to high (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 been removed from further consideration.
<b>Phyto Remediation (TreeWell®)</b>	Deed restrictions may be necessary for groundwater areas upgradient of the TreeWell system. No other 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 (for installation) - minimal O&M requirements	Not retained for further analysis; due to the depth of groundwater and the limited physical space for installation of a phytoremediation system between the AP-BCD and the adjacent surface water bodies, phytoremediation has been removed from consideration for groundwater corrective action at AP-BCD.
<b>Subsurface Vertical Barrier Wells</b>	Deed restrictions may be necessary until groundwater concentrations are below GWPS. No other institutional requirements that may limit application of this technology 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 (depending 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 been removed from further consideration.

**TABLE 2**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
<b>ASH POND BCD (AP-BCD) DETECTION MONITORING WELL NETWORK</b>													
BRGWA-2S	PZ-2S	Upgradient BCD & E	Saprolite	33.205940	-83.338294	440.43	440.4	443.20	44.6	406.20	396.20	10.0	4/2/2014
BRGWA-2I	PZ -2I	Upgradient BCD & E	Amphibolite Gneiss	33.205913	-83.338279	440.47	440.5	443.14	64.3	386.60	376.60	10.0	3/14/2014
BRGWA-5S	PZ-5S	Upgradient BCD & E	Saprolite	33.214300	-83.339971	440.87	440.8	443.86	40.0	411.20	401.20	10.0	4/3/2014
BRGWA-5I	PZ - 5I	Upgradient BCD & E	Amphibolite Gneiss	33.214317	-83.339996	441.17	441.1	443.79	61.2	390.30	380.30	10.0	4/3/2014
BRGWA-6S	PZ-6S	Upgradient BCD & E	Saprolite	33.215780	-83.333008	455.77	455.8	458.96	49.7	416.50	406.50	10.0	4/1/2014
BRGWA-12S	PZ-12S	Upgradient BCD	Residuum	33.197941	-83.314864	431.64	431.6	434.64	58.3	383.70	373.70	10.0	3/4/2014
BRGWA-12I	PZ -12I	Upgradient BCD	Biotite Gneiss	33.197981	-83.314877	431.48	431.5	434.39	77.6	364.30	354.30	10.0	2/20/2014
BRGWA-23S	PZ-23S	Upgradient BCD	Saprolite/TWR	33.194311	-83.312528	425.43	425.5	428.24	40.8	394.70	384.70	10.0	7/26/2016
BRGWC-25I	PZ-25I	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.187670	-83.301326	354.96	355.0	357.37	20.5	344.50	334.50	10.0	7/25/2016
BRGWC-27I	PZ-27S	Downgradient C	Saprolite	33.185265	-83.306589	363.97	364.0	366.86	24.0	350.00	340.00	10.0	7/22/2016
BRGWC-29I	PZ-29I	Downgradient C	TWR	33.186890	-83.302200	350.61	350.6	353.23	20.0	340.60	330.60	10.0	7/23/2016
BRGWC-30I	PZ-30I	Downgradient D	Saprolite/TWR/Biotite Gneiss	33.190566	-83.313141	349.97	350.0	352.61	20.3	340.00	330.00	10.0	7/18/2016
BRGWC-32S	PZ-32S	Downgradient D	Saprolite	33.187992	-83.310531	403.62	403.6	406.39	45.0	368.60	358.60	10.0	7/20/2016
BRGWC-45	PZ-45	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.192199	-83.302065	381.65	381.6	384.58	57.0	335.00	325.00	10.0	2/3/2018
BRGWC-47	PZ-47	Downgradient D	TWR	33.193530	-83.307343	408.75	408.8	411.20	92.0	327.20	317.20	10.0	1/25/2018
BRGWC-50	PZ-50	Downgradient B	Residuum/Biotite Gneiss	33.190421	-83.297841	378.71	378.8	381.35	65.0	324.20	314.20	10.0	1/31/2018
BRGWC-52I	PZ-52	Downgradient B	Biotite Gneiss	33.189551	-83.298594	381.12	381.2	383.87	73.9	317.30	307.30	10.0	8/6/2018

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BRGWA-2I	PZ -2I	Upgradient E	Amphibolite Gneiss	33.205913	-83.338279	440.47	440.5	443.14	64.3	386.60	376.60	10.0	3/14/2014
BRGWA-5S	PZ-5S	Upgradient E	Saprolite	33.214300	-83.339971	440.87	440.8	443.86	40.0	411.20	401.20	10.0	4/3/2014
BRGWA-5I	PZ - 5I	Upgradient E	Amphibolite Gneiss	33.214317	-83.339996	441.17	441.1	443.79	61.2	390.30	380.30	10.0	4/3/2014
BRGWA-6S	PZ-6S	Upgradient E	Saprolite	33.215780	-83.333008	455.77	455.8	458.96	49.7	416.50	406.50	10.0	4/1/2014
BRGWC-17S	PZ-17S	Downgradient E	Alluvium	33.203532	-83.322836	362.12	362.2	365.32	7.1	360.50	355.50	5.0	3/13/2014
BRGWC-33S	PZ-33S	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.208371	-83.324826	414.10	414.2	416.68	26.4	398.20	388.20	10.0	7/26/2016
BRGWC-34S	PZ-34S	Downgradient E	Saprolite	33.206518	-83.324300	389.16	389.2	391.96	23.0	376.20	366.20	10.0	7/25/2016
BRGWC-35S	PZ-35S	Downgradient E	Saprolite	33.204484	-83.323519	363.66	363.7	366.31	27.4	346.70	336.70	10.0	7/23/2016
BRGWC-36S	PZ-36S	Downgradient E	Saprolite	33.201997	-83.322833	383.04	383.1	389.84	28.7	364.40	354.40	10.0	7/26/2016
BRGWC-37S	PZ-37S	Downgradient E	Saprolite/TWR	33.200205	-83.321914	444.35	444.4	447.05	63.6	390.80	380.80	10.0	7/24/2016
BRGWC-38S	PZ-38S	Downgradient E	Saprolite/TWR	33.198277	-83.321812	429.68	429.8	432.24	38.2	402.00	392.00	10.0	7/22/2016
<b>ASH POND BCD (AP-BCD) ASSESSMENT MONITORING WELL NETWORK</b>													
PZ-44	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.190799	-83.300405	380.49	380.5	383.04	57.0	333.90	323.90	10.0	2/2/2018
PZ-50D	NA	Downgradient B	Biotite Gneiss	33.190410	-83.297817	378.32	378.3	380.86	106.0	282.30	272.30	10.0	10/8/2020
PZ-51S	NA	Downgradient B	Residuum	33.190474	-83.297644	377.79	377.9	380.27	45.4	337.90	332.90	5.0	8/1/2018
PZ-51I	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.190523	-83.297623	377.88	378.0	380.52	65.0	323.10	313.10	10.0	8/1/2018
PZ-51D	NA	Downgradient B	Biotite Gneiss	33.190548	-83.297643	378.12	378.1	380.75	106.0	282.10	272.10	10.0	10/9/2020
PZ-57I	NA	Downgradient B	Saprolite/TWR	33.190395	-83.298504	379.38	379.4	382.50	75.9	313.80	303.80	10.0	3/24/2021
PZ-58I	NA	Downgradient B	Saprolite/TWR	33.190383	-83.298087	379.30	379.3	382.27	63.9	325.70	315.70	10.0	3/27/2021
PZ-59I	NA	Downgradient B	Saprolite/TWR	33.190591	-83.297981	379.87	379.9	383.49	65.9	324.30	314.30	10.0	3/31/2021
PZ-60I	NA	Downgradient B	Saprolite/TWR	33.190407	-83.297979	379.43	379.5	382.61	60.8	329.00	319.00	10.0	3/29/2021
PZ-61I	NA	Downgradient B	Saprolite/TWR	33.190498	-83.297655	377.77	377.7	380.64	76.0	312.00	302.00	10.0	3/30/2021

**TABLE 2**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
<b>PIEZOMETERS</b>													
PZ-1D	NA	Upgradient	Biotite Gneiss	33.219259	-83.332788	462.82	462.9	463.41	160.0	NA	302.90	94.5	4/4/2014
PZ-1I	NA	Upgradient	Biotite Gneiss	33.219250	-83.332855	461.71	461.9	464.71	79.5	392.80	382.80	10.0	3/10/2014
PZ-1S	NA	Upgradient	Saprolite	33.219251	-83.332821	462.22	462.4	465.07	65.0	407.80	397.80	10.0	3/20/2014
PZ-3D	NA	Upgradient	Biotite Gneiss	33.201356	-83.337283	486.67	486.7	487.50	130.0	NA	358.59	82.0	3/27/2014
PZ-3I	NA	Upgradient	Biotite Gneiss	33.201412	-83.337289	486.48	486.5	489.49	54.6	442.30	432.30	10.0	3/11/2014
PZ-3S	NA	Upgradient	Saprolite	33.201384	-83.337284	487.07	487.0	490.53	39.9	457.50	447.50	10.0	3/11/2014
PZ-4I	NA	Upgradient	Biotite Gneiss	33.195212	-83.334049	479.96	479.9	482.98	46.8	443.50	433.50	10.0	3/11/2014
PZ-4S	NA	Upgradient	Saprolite	33.195216	-83.334088	479.90	479.9	482.87	30.0	460.30	450.30	10.0	3/10/2014
PZ-7S	NA	Downgradient	Saprolite	33.212137	-83.328090	448.98	449.0	451.57	44.5	414.90	404.90	10.0	4/1/2014
PZ-8S	NA	Upgradient	Saprolite	33.207731	-83.334235	450.42	450.5	453.08	49.5	411.40	401.40	10.0	4/1/2014
PZ-9S	NA	Upgradient	Saprolite	33.193487	-83.328157	466.08	466.1	469.28	48.0	428.50	418.50	10.0	3/5/2014
PZ-10S	NA	Downgradient	Saprolite	33.197260	-83.321907	430.92	431.0	433.85	39.0	402.40	392.40	10.0	3/5/2014
PZ-11S	NA	Downgradient	Saprolite	33.192944	-83.315371	390.95	390.9	393.99	24.5	376.80	366.80	10.0	2/20/2014
PZ-12D	PZD-12D	Downgradient	Biotite Gneiss	33.198010	-83.314885	431.40	431.4	434.09	141.7	350.10	290.10	60.0	4/14/2014
PZ-13S	NA	Downgradient	Saprolite	33.208218	-83.320866	406.45	406.5	409.97	34.7	382.20	372.20	10.0	3/19/2014
PZ-14I	NA	Downgradient	Biotite Gneiss	33.209302	-83.323834	419.85	419.9	422.71	53.8	376.50	366.50	10.0	3/20/2014

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 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
PZ-14S	NA	Downgradient	Saprolite	33.209303	-83.323855	420.17	420.2	423.31	37.6	393.00	383.00	10.0	3/20/2014
PZ-15I	NA	Downgradient	Biotite Gneiss/Amphibolite	33.207440	-83.323742	400.10	400.2	403.06	88.7	321.90	311.90	10.0	3/25/2014
PZ-15S	NA	Downgradient	Saprolite	33.207438	-83.323759	400.04	400.1	402.90	39.9	370.20	360.20	10.0	3/27/2014
PZ-16I	NA	Downgradient	Amphibolite Gneiss	33.205401	-83.323146	379.41	379.5	382.45	38.6	351.30	341.30	10.0	3/14/2014
PZ-16S	NA	Downgradient	Saprolite	33.205393	-83.323166	379.32	379.3	382.52	19.1	370.60	360.60	10.0	3/18/2014
PZ-17I	NA	Downgradient	Amphibolite Gneiss	33.203566	-83.322788	362.22	362.3	365.33	43.5	329.20	319.20	10.0	3/17/2014
PZ-18I	NA	Downgradient	Biotite Gneiss	33.188252	-83.312988	359.65	359.6	362.55	38.4	331.30	321.30	10.0	2/26/2014
PZ-18S	NA	Downgradient	Saprolite	33.188228	-83.312982	359.77	359.7	362.82	24.2	345.00	335.00	10.0	3/26/2014
PZ-19I	NA	Downgradient	Biotite Gneiss	33.185563	-83.309241	368.85	368.9	371.74	43.7	335.60	325.60	10.0	3/4/2014
PZ-19S	NA	Downgradient	Saprolite	33.185586	-83.309258	368.50	368.4	371.42	28.0	350.80	340.80	10.0	3/4/2014
PZ-20I	NA	Downgradient	Biotite Gneiss	33.184705	-83.305130	362.16	362.2	365.34	29.5	343.10	333.10	10.0	3/5/2014
PZ-20S	NA	Downgradient	Saprolite	33.184691	-83.305140	362.19	362.2	365.41	15.3	357.30	347.30	10.0	3/5/2014
PZ-21I	NA	Downgradient	Biotite Gneiss	33.187691	-83.301283	355.85	355.8	358.92	24.4	341.80	331.80	10.0	3/10/2014
PZ-21S	NA	Downgradient	Residuum/Saprolite	33.187694	-83.301305	355.43	355.5	358.52	9.8	351.10	346.10	5.0	3/11/2014
PZ-23I	NA	Downgradient	Biotite Gneiss	33.194321	-83.312497	425.00	425.1	427.74	66.5	368.60	358.60	10.0	7/29/2016
PZ-24S	BRGWC-24S	Downgradient A	Saprolite	33.192629	-83.296220	351.35	351.4	354.10	42.0	319.90	309.90	10.0	7/27/2016
PZ-26I	NA	Downgradient	Biotite Gneiss	33.187898	-83.300306	368.01	368.0	370.63	30.5	347.50	337.50	10.0	7/26/2016
PZ-28I	NA	Downgradient	TWR/Biotite Gneiss	33.184732	-83.305158	362.45	362.5	364.81	24.0	348.50	338.50	10.0	7/24/2016
PZ-31S	NA	Downgradient	TWR	33.188716	-83.312244	374.35	374.3	376.77	39.5	344.80	334.80	10.0	7/26/2016
PZ-39	NA	Downgradient	Saprolite	33.196254	-83.313842	431.92	432.0	434.78	44.7	397.30	387.30	10.0	7/30/2016
PZ-40S	NA	Downgradient A	Residuum	33.192669	-83.296398	353.17	353.2	355.96	40.2	324.40	314.40	10.0	2/14/2017
PZ-41S	NA	Downgradient A	Saprolite	33.192716	-83.296555	354.23	354.3	357.17	44.2	320.50	310.50	10.0	2/14/2017
PZ-42S	NA	Downgradient A	Residuum	33.193854	-83.296624	358.92	359.0	361.66	32.2	337.20	327.20	10.0	2/9/2017
PZ-43	NA	Downgradient A	Residuum/Biotite Gneiss	33.191985	-83.298942	N.A.	381.0	383.71	40.4	351.00	341.00	10.0	2/7/2018
PZ-46	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.193658	-83.303739	382.09	382.1	384.64	45.6	346.50	336.50	10.0	2/5/2018
PZ-48	NA	Downgradient D	Saprolite/TWR/Amphibolite	33.194504	-83.310642	418.20	418.3	420.90	67.0	361.70	351.70	10.0	1/24/2018



**TABLE 2**  
**SUMMARY OF MONITORING WELL, ASSESSMENT WELL AND PIEZOMETER CONSTRUCTION**  
 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) <sup>[1][2]</sup>	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[3]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
PZ-49	NA	Downgradient B	Residuum/Biotite Gneiss	33.195198	-83.301871	382.22	382.2	384.99	17.0	375.60	365.60	10.0	1/30/2018
PZ-52D	NA	Downgradient E	Biotite Gneiss	33.208362	-83.324870	414.15	414.3	417.03	59.5	364.80	354.80	10.0	5/14/2020
PZ-53D	NA	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.198283	-83.321917	431.59	431.6	434.68	139.4	302.20	292.20	10.0	5/17/2020
PZ-54	NA	Downgradient E	Saprolite/TWR	33.199468	-83.320356	440.71	440.8	443.86	52.0	398.80	388.80	10.0	5/15/2020
PZ-55	NA	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.195029	-83.322604	450.11	450.2	453.07	49.3	410.90	400.90	10.0	5/19/2020
PZ-56	NA	Downgradient B	Saprolite/TWR/Biotite Gneiss	33.194377	-83.324890	416.17	416.2	418.84	29.3	396.90	386.90	10.0	5/20/2020
PB-1S	NA	Downgradient	Saprolite/PWR	33.199673	-83.317420	N.A.	400.4	403.16	38.0	372.40	362.40	10.0	1/22/2019
PB-2D	NA	Downgradient	Gneiss	33.199504	-83.315596	N.A.	414.9	416.71	57.0	367.90	357.90	10.0	12/4/2018
PB-4S	NA	Downgradient	Saprolite/PWR	33.198098	-83.318372	N.A.	409.3	411.15	48.0	371.30	361.30	10.0	1/16/2019
PB-4D	NA	Downgradient	Gneiss	33.198110	-83.318400	N.A.	409.0	412.12	114.5	304.50	294.50	10.0	1/16/2019
PB-7S	NA	Downgradient	Saprolite/PWR	33.196710	-83.318003	N.A.	399.7	402.88	33.0	376.70	366.70	10.0	1/14/2019
PB-8S	NA	Downgradient	Saprolite/PWR	33.194463	-83.316044	N.A.	398.6	401.82	35.0	373.60	363.60	10.0	1/8/2018
PB-8D	NA	Downgradient	Gneiss	33.194480	-83.316062	N.A.	398.2	401.74	106.0	304.20	294.20	10.0	1/8/2018
PB-10S	NA	Downgradient	Saprolite	33.195992	-83.310279	N.A.	397.6	400.91	33.0	374.60	364.60	10.0	1/16/2019
PB-10D	NA	Downgradient	Gneiss	33.196004	-83.310294	N.A.	397.5	400.31	85.0	322.50	312.50	10.0	1/16/2019
PB-13S	NA	Downgradient	Saprolite	33.191900	-83.316612	N.A.	370.8	373.31	50.0	330.80	320.80	10.0	12/10/2018
PB-13D	NA	Downgradient	Gneiss	33.191900	-83.316570	N.A.	371.1	373.77	97.0	284.10	274.10	10.0	12/10/2018

**Notes:**

1. feet NAVD88 = feet North American Vertical Datum 1988 feet NAD83 = North American Datum 1983
2. Ground surface measured at the mag nail in the concrete pad
3. feet bgs = feet below ground surface
4. TWR = Transitionally Weathered Rock
5. NA = Not applicable
6. Piezometers may be used to collect waters levels. They are not considered compliance monitoring locations.

**TABLE 3**  
**ANALYTICAL DATA SUMMARY - AP-BCD (September 2021)**  
 Georgia Power Company - Plant Branch

Analyte	Units	WELL ID										
		BRGWC-50	BRGWC-52I	PZ-44	PZ-50D	PZ-51D	PZ-51I	PZ-51S	PZ-57I	PZ-58I	PZ-60I	PZ-61I
		9/27/2021	9/28/2021	9/28/2021	9/28/2021	9/28/2021	9/27/2021	9/27/2021	9/28/2021	9/28/2021	9/28/2021	9/27/2021
<b>Cations and anions</b>												
ALKALINITY, BICARBONATE	mg/L	11.2	75.4	81.8	77.7	144	22.2	68.7	10.1	< 5	< 5	11.3
ALKALINITY, CARBONATE	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
ALKALINITY, TOTAL	mg/L	11.2	75.4	81.8	77.7	144	22.2	68.7	10.1	< 5	< 5	11.3
HARDNESS	mg/L	1050	171	103	923	399	963	53.2	257	513	1400	1310
IRON	mg/L	0.15	5.7	0.11	4.5	1.7	0.031 J	< 0.025	2.6	39.8	0.25	4.5
MAGNESIUM	mg/L	136	17.6	10.3	87.4	28.2	121	8.4	31.3	58.9	173	180
MANGANESE	mg/L	78	0.76	0.44	14.7	1.1	37.5	1.3	12.2	20.2	167	118
NITROGEN, NITRATE-NITRITE	mg/L	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	1.8	< 0.017	< 0.017	< 0.017	< 0.017
POTASSIUM	mg/L	9.7	4.8	2.5	13.3	10.0	10.6	2.2	4.3	7.0	13.0	7.0
SODIUM	mg/L	46.3	18.2	12.3	62.1	39.0	45.8	11.4	18.2	30.3	64.0	66.1
<b>Appendix III</b>												
BORON, TOTAL	mg/L	0.32	1.4	1.3	0.24	0.023 J	0.39	< 0.0086	0.48	0.36	0.23	0.26
CALCIUM, TOTAL	mg/L	196	39.5	24.2	225	113	187	7.5	51.1	108	274	230
CHLORIDE, TOTAL	mg/L	16.2	5.5	5.0	13.0	12.8	9.4	3.8	5.9	9.6	27.2	20.0
FLUORIDE, TOTAL	mg/L	0.43	0.12	0.08 J	0.11	0.26	< 0.05	0.072 J	0.085 J	0.97	1.6	0.067 J
pH	S.U.	5.05	6.81	6.22	6.23	7.18	5.34	6.04	5.37	4.00	4.77	5.02
SULFATE, TOTAL	mg/L	1180	132	47.2	866	294	933	< 0.5	259	628	1670	1420
TOTAL DISSOLVED SOLIDS	mg/L	1800	336	181	1470	650	1560	88.0	542	1120	2600	2100
<b>Appendix IV</b>												
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0012 J	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
ARSENIC, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0023 J
BARIUM, TOTAL	mg/L	0.017	0.013	0.049	0.034	0.057	0.014	0.025	0.022	0.017	0.022	0.029
BERYLLIUM, TOTAL	mg/L	0.006	< 0.000054	< 0.000054	0.000059 J	< 0.000054	0.000071 J	< 0.000054	0.00031 J	0.025	0.065	0.0017
CADMIUM, TOTAL	mg/L	0.0095	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.0031	< 0.00011	0.00064	0.0042	0.016	0.00081
CHROMIUM, TOTAL	mg/L	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0077
COBALT, TOTAL	mg/L	1.3	< 0.00039	< 0.00039	0.20	< 0.00039	0.020	0.0022 J	0.055	0.39	3.5	0.45
FLUORIDE, TOTAL	mg/L	0.43	0.12	0.080 J	0.11	0.26	< 0.05	0.072 J	0.085 J	0.97	1.6	0.067 J
LEAD, TOTAL	mg/L	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	0.0019
LITHIUM, TOTAL	mg/L	0.038	0.0035 J	0.0048 J	0.020 J	0.0096 J	0.020 J	< 0.00073	0.018 J	0.041	0.10	0.0095 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078
MOLYBDENUM, TOTAL	mg/L	< 0.00074	< 0.00074	< 0.00074	0.0021 J	0.0029 J	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074
RADIUM (226 + 228)	pCi/L	2.07	3.28	0.526 U	1.05	1.89	0.771 U	0.00107 U	0.0352 U	1.66	2.79	1.14 U
SELENIUM, TOTAL	mg/L	0.0022 J	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	0.0034 J	0.0049 J	0.0079
THALLIUM, TOTAL	mg/L	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

**Notes:**

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed as less than the MDC and considered an undetected result (U qualified). The MDC varies depending upon the sample amount and elapsed time of the measurement.

**TABLE 4**  
**PROPOSED ACM SUPPLEMENTARY DATA COLLECTION TASKS FOR JANUARY THROUGH JUNE 2022– AP-BCD**  
 Georgia Power Company – Plant Branch

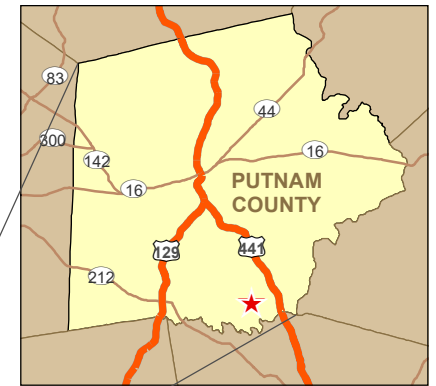
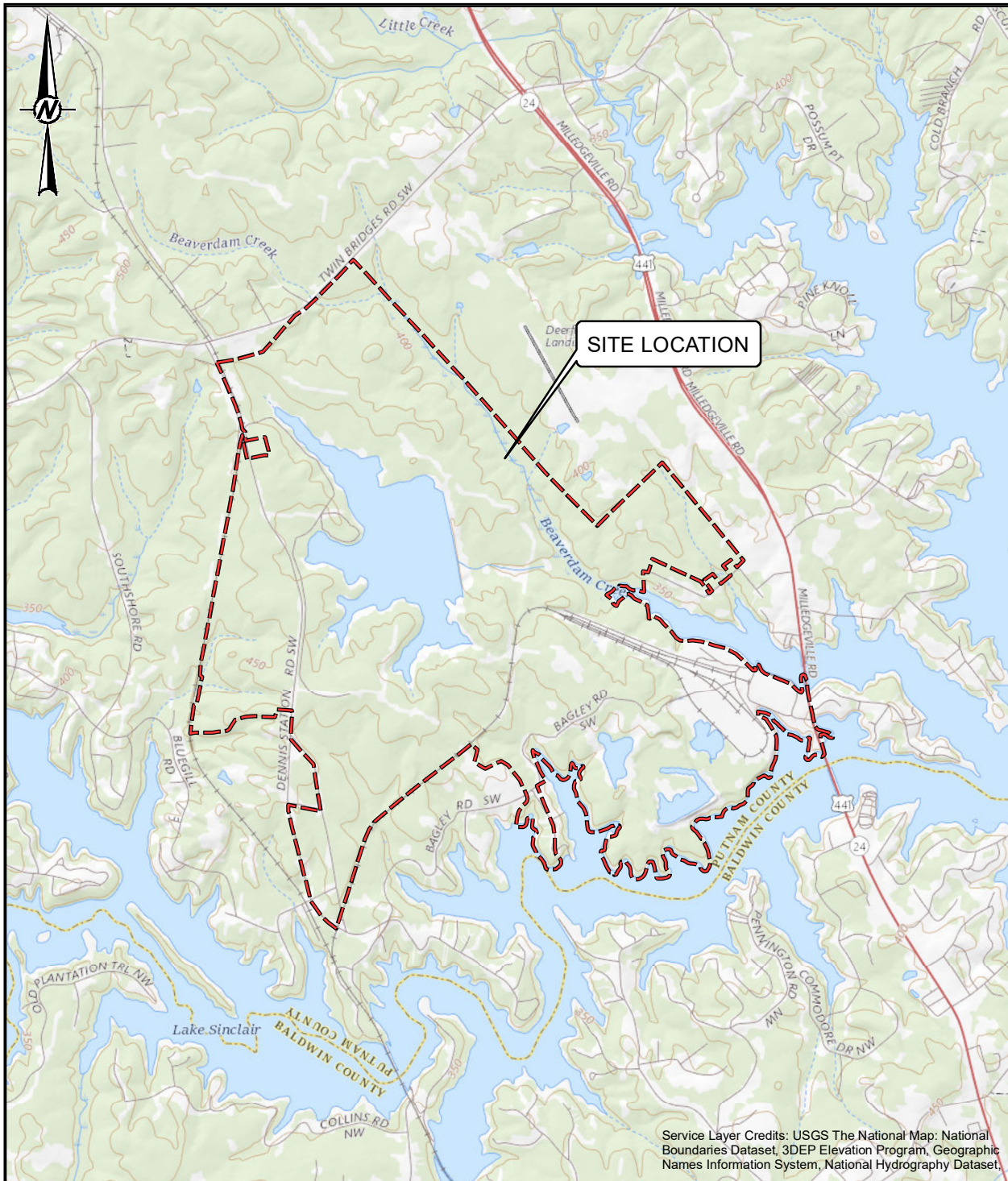
Data Collection Event	Applicable CMs	Applicability / Rationale	Field Component	Parameters of Interest (POI)
<b>Well Installation</b>	ISI P&T MNA	Evaluation of: Nature and extent of cobalt and cadmium near BRGWC-50	Install 2 piezometers (PZ-62I and PZ-63I)(50 – 60 feet deep) to evaluate the spatial concentrations of target constituents near BRGWC-50	Characterize cobalt and cadmium concentrations spatially between the AP-B and well BRGWC-50, northeast of BRGWC-52I.
<b>Groundwater Sampling</b>	ISI P&T MNA	Evaluation of: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) in situ conditions to establish evaluate geochemical injection options downgradient of unit	Collect groundwater samples from PZ-44, BRGWC-50, PZ-51I, PZ-59I, PZ-60I, PZ-61I, and proposed piezometers PZ-62I, and PZ-63I.	Jar/column test and general chemistry (PZ-44, BRGWC-50, PZ-51I, PZ-59I, PZ-60I, PZ-61I), and Appendix III and targeted Appendix IV constituents (cadmium and cobalt), and total phosphorous, sulfide, iron, manganese, magnesium, sodium, potassium, total alkalinity, bicarbonate, dissolved organic carbon (DOC), nitrate/nitrite, and total hardness (PZ-59, PZ-62I, and PZ-63I).
<b>Slug tests</b>	ISI P&T MNA	Refine conceptual model with new subsurface data.	Conduct slug tests in select wells not previously tested. Wells include PZ-57I, PZ-60I, PZ-62I and PZ-63I.	Transmissivity, storage coefficient, hydraulic conductivity
<b>Evaluation of the analytical results from specialized analysis of collected saturated unconsolidated aquifer matrix samples</b>	ISI P&T MNA	Evaluation of aquifer matrix for: (i) attenuation mechanisms and rates, and aquifer capacity for attenuation; and (ii) mineralogical characterization.	No Field Component: Aquifer matrix samples collected and submitted to the lab in May 2021.	Conceptually identify attenuation rates and aquifer capacity for cadmium (Cd) and cobalt (Co). Evaluate long term stability of attenuation.

Notes:

Applicable Corrective Measures (CM) Retained:

- ISI - Geochemical Approaches (In-Situ Injection)
- P&T - Hydraulic Containment (Pump and Treat)
- MNA - Monitored Natural Attenuation

# FIGURES



CLIENT  
 GEORGIA POWER COMPANY  
 PLANT BRANCH



PROJECT  
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS  
 REPORT - AP-BCD

TITLE  
 SITE LOCATION MAP

CONSULTANT



YYYY-MM-DD	2019-03-15
PREPARED	DJC
DESIGN	DLP
CHECKED	RK
REVIEW/APPROVED	DLP

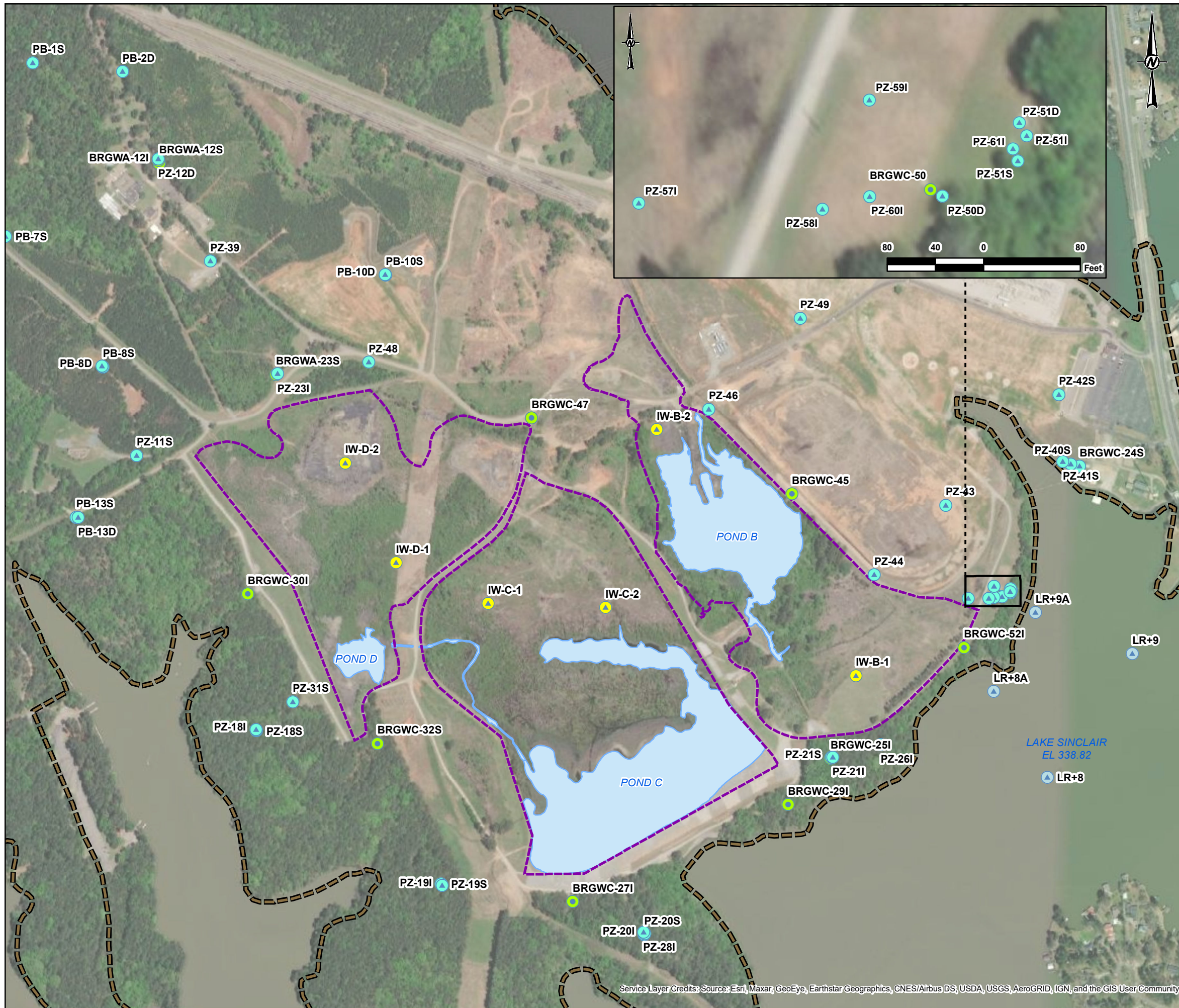
PROJECT No.  
 166625421

CONTROL  
 1666254A000-GIS.mxd

Rev.  
 0

FIGURE  
 1

Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset.



**LEGEND**

- MONITORING WELL
- ▲ PIEZOMETER
- INTERSTITIAL WELL
- ▲ SURFACE WATER SAMPLE
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY
- APPROXIMATE SURFACE WATER LIMITS

**REFERENCE**

1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
3. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES. WELL AND PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

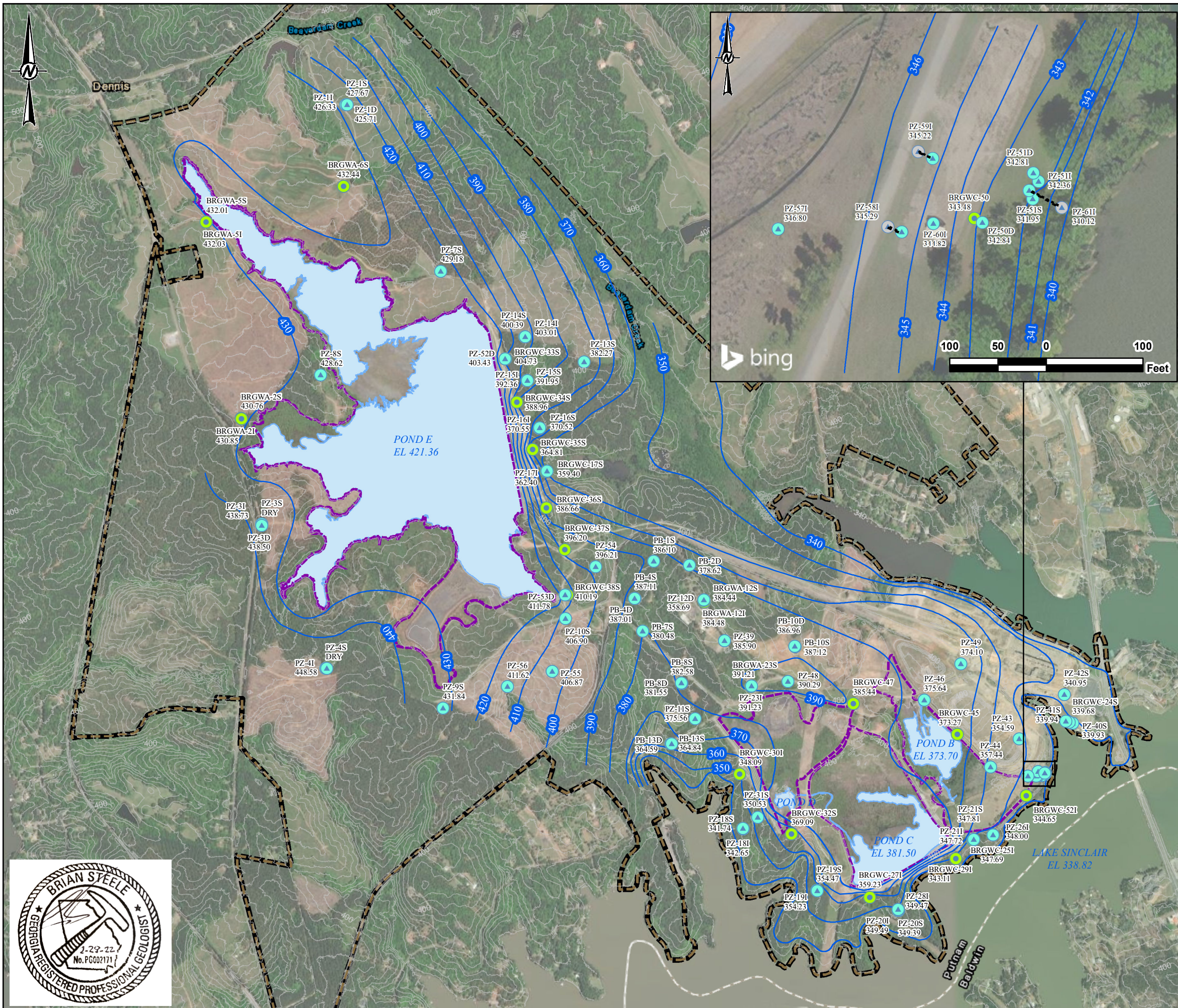
PROJECT  
**SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT**

TITLE  
**MONITORING WELL, PIEZOMETER AND SURFACE WATER LOCATION MAP**

CONSULTANT	DATE	REVISION
<b>GOLDER</b> MEMBER OF WSP	YYYY-MM-DD	2020-01-12
	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK/DP
	APPROVED	

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B

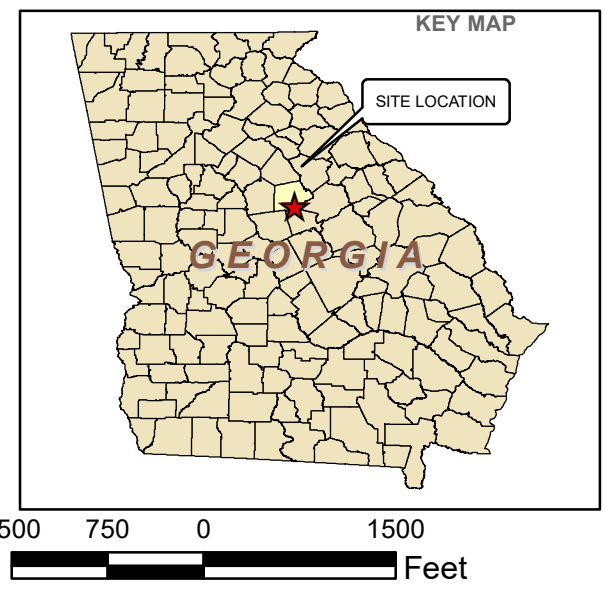


**LEGEND**

- ANGLED WELL SCREEN
- MONITORING WELL
- PIEZOMETER
- INFERRED POTENTIOMETRIC SURFACE (NAVD88)
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY
- APPROXIMATE SURFACE WATER LIMITS

- NOTES**
1. GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET
  2. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, AND TOPOGRAPHIC CONTOURS. THEREFORE, CONTOURS MAY NOT REFLECT ACTUAL CONDITIONS.
  3. DEEP (D) WELL ELEVATIONS WERE NOT USED FOR GROUNDWATER AND POND CONTOURING.
  4. NAVD88=NORTH AMERICAN VERTICAL DATUM 88.
  5. GROUNDWATER AND POND ELEVATIONS RECORDED SEPTEMBER 20, 2021.

- REFERENCE**
1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGIRD, IGN, AND THE GIS USER COMMUNITY ESRI, HERE, GARMIN, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY © 2021 MICROSOFT CORPORATION © 2021 MAXAR ©CNES (2021) DISTRIBUTION AIRBUS DS
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. BORING/PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC.
  4. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

PROJECT  
**SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT**

TITLE  
**POTENTIOMETRIC SURFACE CONTOUR MAP**  
 SEPTEMBER 20, 2021

CONSULTANT	DATE	BY
<b>GOLDER</b> MEMBER OF WSP	YYYY-MM-DD	2021-06-30
	PREPARED	BAS
	DESIGN	DC
	REVIEW	BS
	APPROVED	RK



1 in. IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B



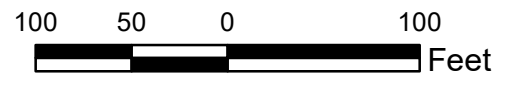
**LEGEND**

- ANGLED WELL SCREEN
- SURFACE WATER SAMPLE
- MONITORING WELL
- PIEZOMETER
- INFERRED POTENTIOMETRIC SURFACE (SEPT 2021)
- CADMIUM GWPS ISOCONTOUR
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY

- NOTES**
- GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD. RSL = FEDERAL REGIONAL SCREENING LEVEL. J = ESTIMATED VALUE.
  - ISOCONTOURS SHOWN REPRESENT GROUNDWATER PROTECTION STANDARD
  - DATA SHOWN REPRESENT THE SEPTEMBER SEMI-ANNUAL MONITORING EVENT RESULTS.
  - SURFACE WATER SAMPLE COLLECTED BY ARCADIS IN SEPTEMBER 2021. NA=NOT ANALYZED FOR CADMIUM.
  - PIEZOMETERS PZ-58I, PZ-59I, AND PZ-61I ARE ANGLED PIEZOMETERS. THE HORIZONTAL LOCATIONS FOR WHERE THE RESPECTIVE WELL SCREENS ARE SPATIALLY LOCATED WERE MARKED WITH CONCRETE PADS, WITH LOCATIONS PROVIDED BY METRO ENGINEERING.

Analyte	Units	GWPS
Cadmium	mg/L	0.005

- REFERENCE**
- SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRI, IGN, AND THE GIS USER COMMUNITY AND GOOGLE EARTH 2021
  - COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  - PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES. WELL AND PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

PROJECT  
 SEMI-ANNUAL REMEDY SELECTION AND DESIGN  
 PROGRESS REPORT

TITLE  
**CADMIUM ISOCONCENTRATION CONTOUR MAP**  
**POND BCD**  
**SEPTEMBER 2021**

CONSULTANT	YYYY-MM-DD	2021-11-15
<b>GOLDER</b> MEMBER OF WSP	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK/DP
	APPROVED	

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B





**LEGEND**

- ANGLED WELL SCREEN
- SURFACE WATER SAMPLE
- MONITORING WELL
- PIEZOMETER
- INFERRED POTENTIOMETRIC SURFACE (SEPT 2021)
- 0.0135 COBALT GWPS ISOCONTOUR
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY

- NOTES**
1. GROUNDWATER CONCENTRATIONS IN MILLIGRAMS PER LITER (MG/L). GWPS = GROUNDWATER PROTECTION STANDARD. RSL = FEDERAL REGIONAL SCREENING LEVEL. J = ESTIMATED VALUE.
  2. ISOCONTOURS SHOWN REPRESENT GROUNDWATER PROTECTION STANDARD
  3. DATA SHOWN REPRESENT THE SEPTEMBER SEMI-ANNUAL MONITORING EVENT RESULTS.
  4. GWPS IS EQUAL TO SITE SPECIFIC BACKGROUND CONCENTRATION AS THERE IS NO MCL AND THE RSL IS BELOW SITE SPECIFIC BACKGROUND
  5. SURFACE WATER SAMPLE COLLECTED BY ARCADIS IN SEPTEMBER 2021
  6. PIEZOMETERS PZ-58I, PZ-59I, AND PZ-61I ARE ANGLED PIEZOMETERS. THE HORIZONTAL LOCATIONS FOR WHERE THE RESPECTIVE WELL SCREENS ARE SPATIALLY LOCATED WERE MARKED WITH CONCRETE PADS, WITH LOCATIONS PROVIDED BY METRO ENGINEERING.

Analyte	Units	GWPS
Cobalt	mg/L	0.0135

- REFERENCE**
1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY AND GOOGLE EARTH 2021
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES. WELL AND PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING.

CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

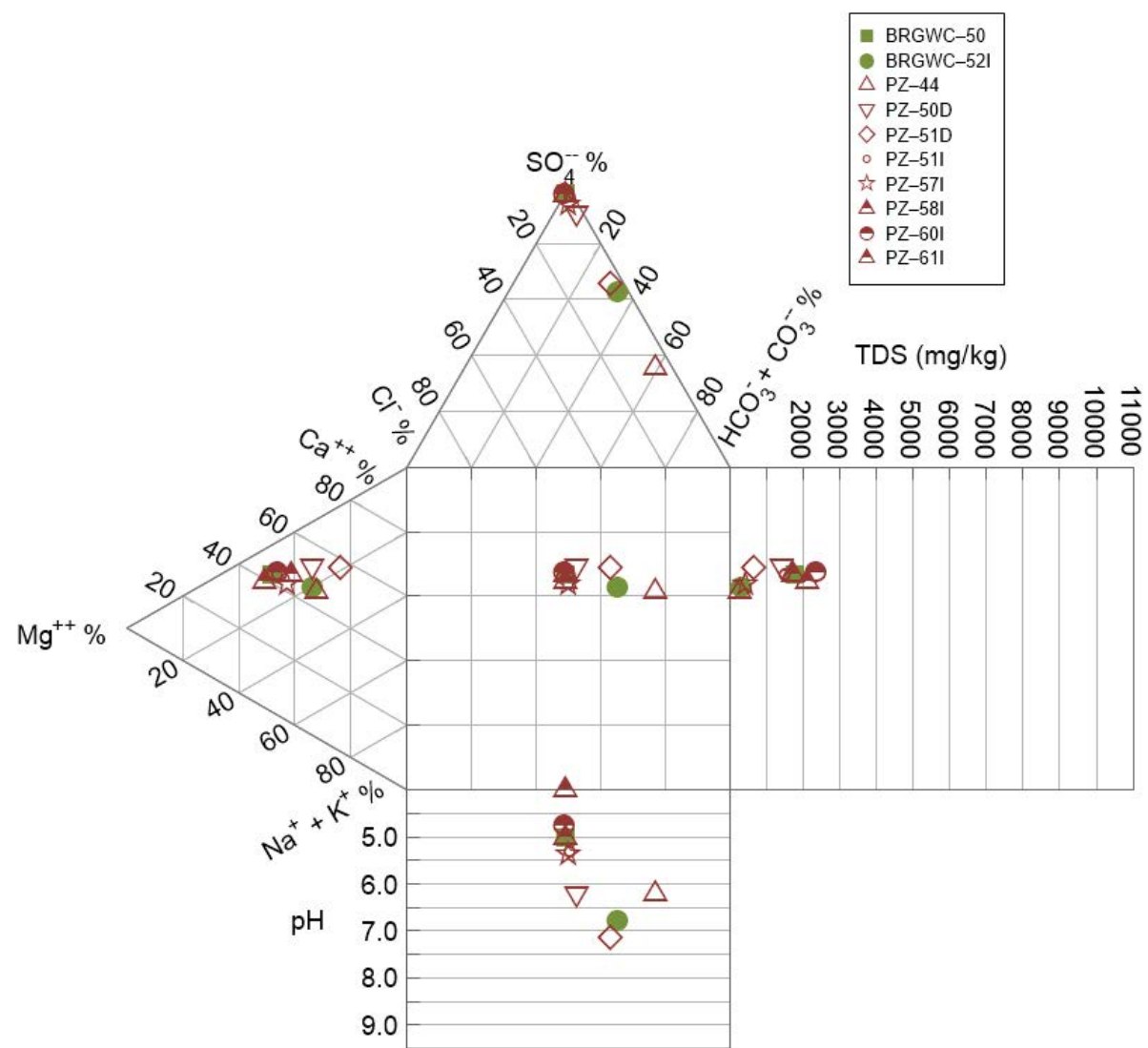
PROJECT  
**SEMI-ANNUAL REMEDY SELECTION AND DESIGN**  
 PROGRESS REPORT

TITLE  
**COBALT ISOCONCENTRATION CONTOUR MAP**  
**POND BCD**  
**SEPTEMBER 2021**

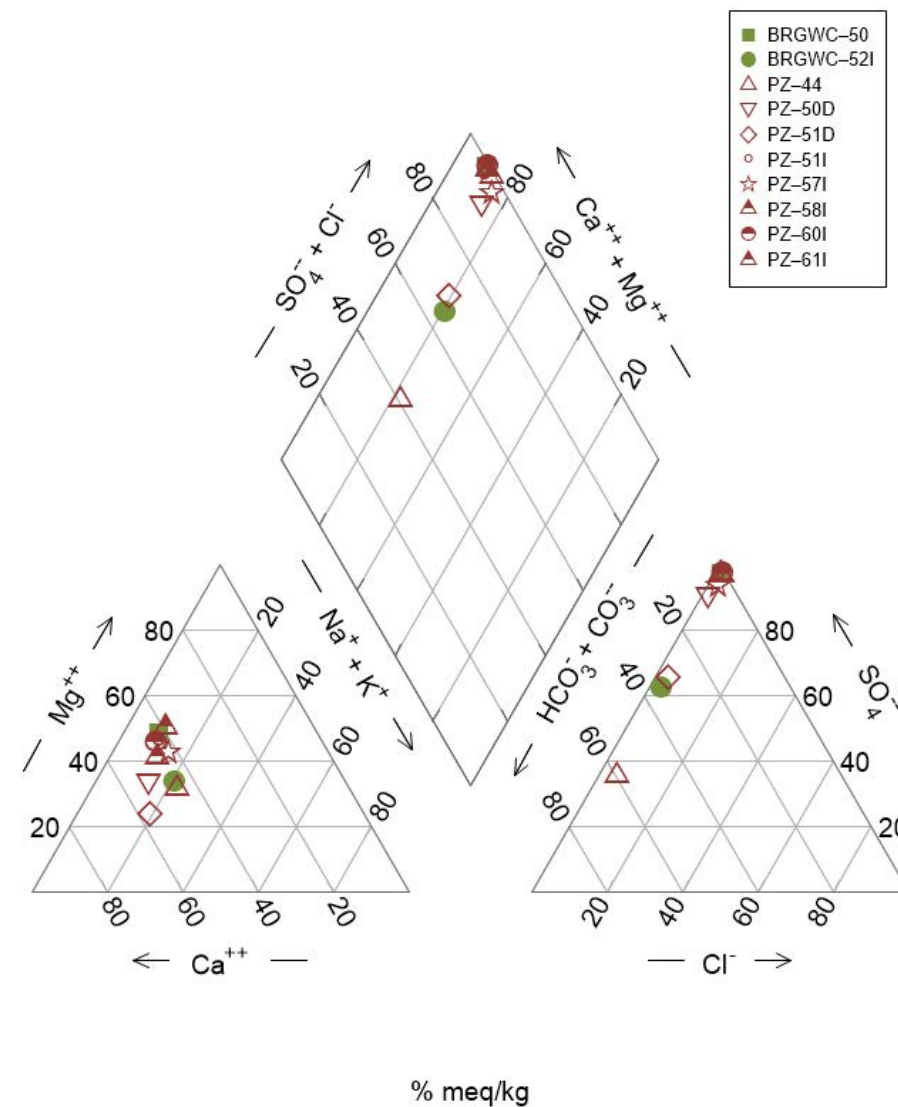
CONSULTANT	YYYY-MM-DD	2021-11-15
<b>GOLDER</b> MEMBER OF WSP	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK/DP
	APPROVED	

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar, Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Durov Diagram Showing Major Ion Abundance Relative to the pH and TDS of Wells



Piper Diagram Showing the Major Ion Relative Abundance of Groundwater at Wells

CLIENT  
GEORGIA POWER COMPANY  
PLANT BRANCH



CONSULTANT



YYYY-MM-DD 2022-1-26

DESIGNED BS

PREPARED BS

REVIEWED RPK

APPROVED DP

PROJECT  
SEMI-ANNUAL REMEDY SELECTION AND DESIGN  
PROGRESS REPORT

TITLE  
PIPER AND DUROV DIAGRAMS

PROJECT NO.  
166625421

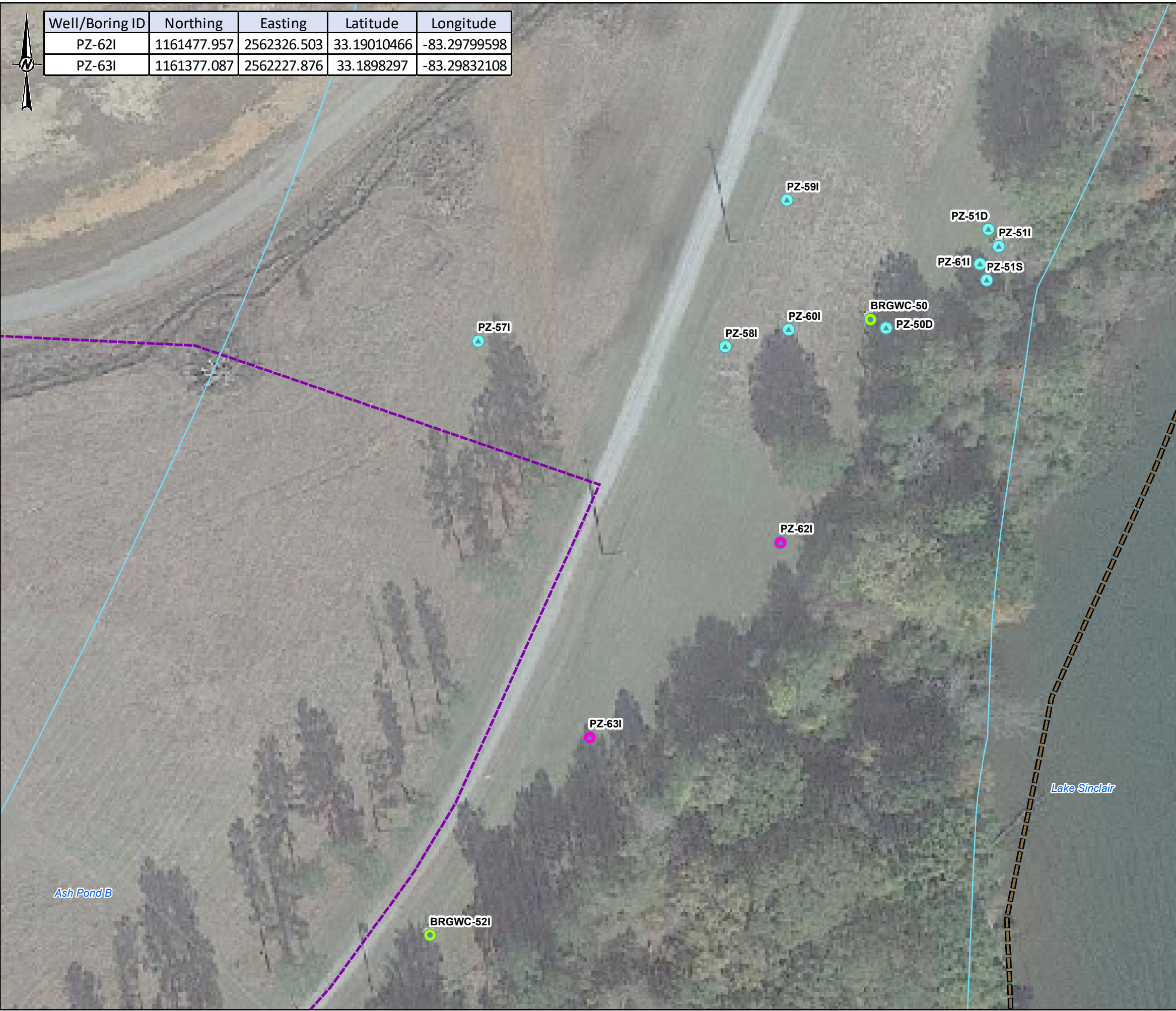
CONTROL

REV.  
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FIGURE  
6



Well/Boring ID	Northing	Easting	Latitude	Longitude
PZ-62I	1161477.957	2562326.503	33.19010466	-83.29799598
PZ-63I	1161377.087	2562227.876	33.1898297	-83.29832108

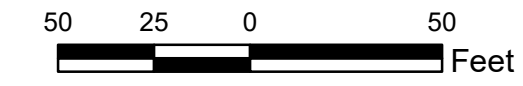


**LEGEND**

- PROPOSED PIEZOMETER
- MONITORING WELL
- ▲ PIEZOMETER
- INFERRED POTENTIOMETRIC SURFACE (MAR 2021)
- PROPERTY BOUNDARY
- APPROXIMATE ASH POND BOUNDARY
- APPROXIMATE SURFACE WATER LIMITS

**REFERENCE**

- SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
- COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
- PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES. WELL AND PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING.



CLIENT  
**GEORGIA POWER COMPANY**  
 PLANT BRANCH

PROJECT  
**SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT**

TITLE  
**PROPOSED PIEZOMETER LOCATION MAP**

CONSULTANT	YYYY-MM-DD	2020-01-12
<b>GOLDER</b> MEMBER OF WSP	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK/DP
	APPROVED	

1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM ANS/B

**APPENDIX A**

# WELL SURVEY

---

## Well Survey

Plant Branch is in Putnam County, GA south of the city of Eatonton and on a northern bank of Lake Sinclair.

Golder has conducted a well survey of groundwater wells within a two-mile radius of the Coal Combustion Residual (CCR) facilities at Plant Branch: Ash Ponds B, C, D, and E.

This survey included the collection and review of information obtained from a variety of Federal, State, and County resources and public records databases. Identified well data were compiled into a geographic information system (GIS) database.

## Information Collection

This section summarizes the appropriate sources used for identifying groundwater wells within the area of investigation.

1. Federal Sources
  - a. **United States Geological Survey (USGS).** The USGS maintains an inventory of both qualitative and quantitative water data through the National Water Information System (NWIS). Well information including coordinates were downloaded and compiled into GIS. The type of data within the area of investigation included groundwater wells and surface water intake and outfall on Lake Sinclair.
  - b. **Safe Drinking Water Information System (SDWIS).** This database is managed by the EPA and contains information regarding public water source providers but does not contain geospatial data or well location information. This source was used to determine that the primary supplier of public water in the area of investigation is the Sinclair Water Authority.
2. State Sources
  - a. **Georgia Environmental Protection Division**
    - i. **Drinking Water Branch.** Records concerning industrial and municipal wells are maintained by the EPD and made available through a Georgia Open Records Act (GORA) request. Linda Weglewski of EPD was contacted by email on November 17<sup>th</sup>, 2021 regarding information on groundwater wells within the area of investigation. There is one public drinking water system within the 2 mile radius of this location. (1.20 mi) GA2370066 101 GA POWER-SKILLS DEV CENTER Well SWAP.
    - ii. **EPD Pesticide Project.** From 2000 to 2004 the EPD coordinated with the Georgia Department of Agriculture (GDA) to sample monitoring wells and private drinking wells across the State of Georgia for potential pesticide contaminants. The final project report contains a list of private drinking water wells and their GPS coordinates. No wells from this list were determined to be within the area of investigation.
    - iii. **Hazardous Site Inventory (HSI) files.** EPD manages HSI files for those sites necessitating or undergoing state coordinated corrective action. No listings were reported in the GORA request.
    - iv. **Hazardous Site Response Act (HSRA) notifications.** EPD manages HSRA notification documentation which includes reports submitted after release of reportable substances. No listings were reported in the GORA request.
3. County Sources
  - a. **Health Department Records.** As part of the Georgia Department of Public Health (DPH) county health departments maintain records of septic system permits. These permits indicate whether a private or public water supply is used at the address. The health departments of Putnam, Baldwin, and Hancock were contacted for these records on 11/18/2021.

- b. **Water Authority Records.** The Sinclair Water Authority was contacted on 11/18/2021 for their records regarding groundwater wells or public water supply by residents within the area of investigation.

**Plant Branch**

1100 Milledgeville Rd  
Eatonton, GA 31024

Inquiry Number: 6754839.1s  
November 17, 2021

# The EDR GeoCheck® Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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# GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

## TARGET PROPERTY ADDRESS

PLANT BRANCH  
1100 MILLEDGEVILLE RD  
EATONTON, GA 31024

## TARGET PROPERTY COORDINATES

Latitude (North):	33.196742 - 33° 11' 48.27"
Longitude (West):	83.31763 - 83° 19' 3.47"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	283949.9
UTM Y (Meters):	3675299.5
Elevation:	402 ft. above sea level

## USGS TOPOGRAPHIC MAP

Target Property Map:	33083-B3 LAKE SINCLAIR WEST, GA
Version Date:	1972

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

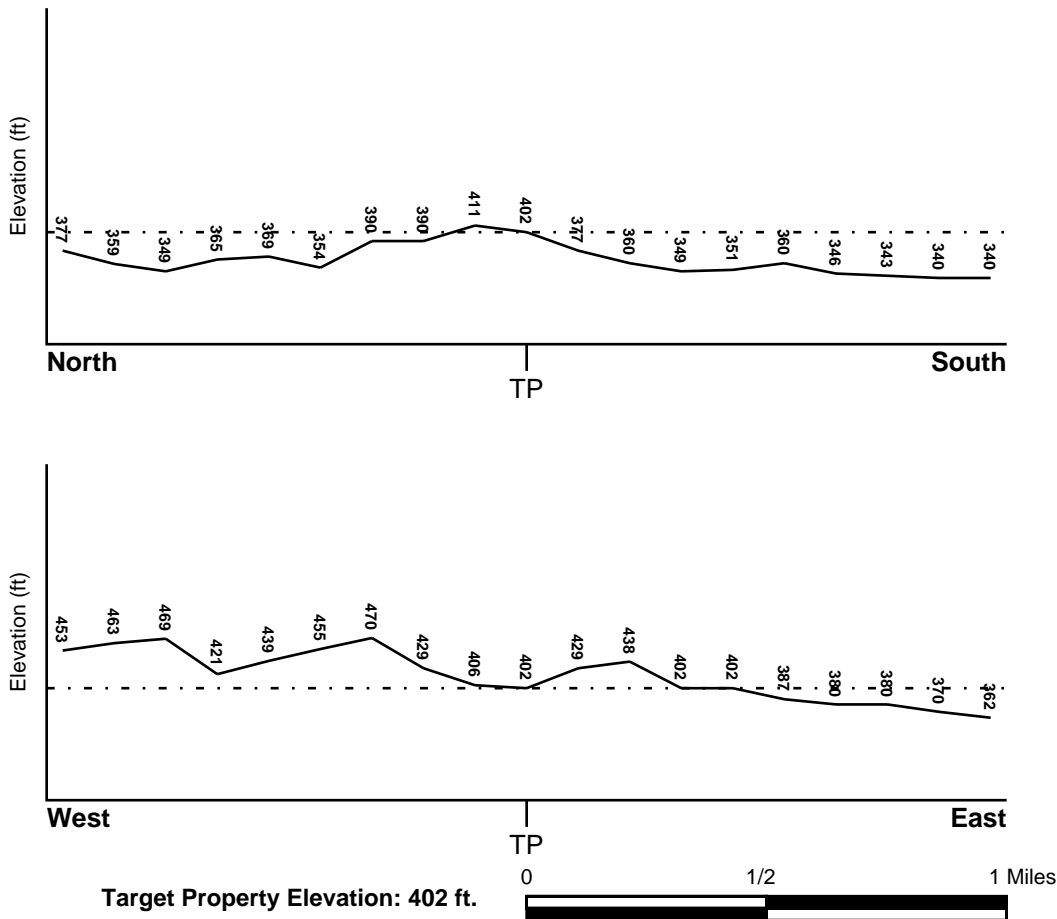
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
13009C0050D	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
13009C0045D	FEMA FIRM Flood data

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
LAKE SINCLAIR WEST	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### ROCK STRATIGRAPHIC UNIT

Era: Paleozoic  
System: Pennsylvanian  
Series: Felsic paragneiss and schist  
Code: mm1 (*decoded above as Era, System & Series*)

### GEOLOGIC AGE IDENTIFICATION

Category: Metamorphic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: CECIL

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 6.50 Min: 4.50
2	7 inches	11 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50
3	11 inches	50 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50
4	50 inches	75 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sandy loam  
loam  
fine sandy loam

Surficial Soil Types: sandy loam  
loam  
fine sandy loam

Shallow Soil Types: clay  
sandy clay  
gravelly - loam

Deeper Soil Types: loamy fine sand  
sandy loam  
weathered bedrock

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	2.000
Federal FRDS PWS	2.000
State Database	2.000

## **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
3	USGS40000262254	1 - 2 Miles SW
B4	USGS40000262392	1 - 2 Miles NNE
B5	USGS40000262391	1 - 2 Miles NNE

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

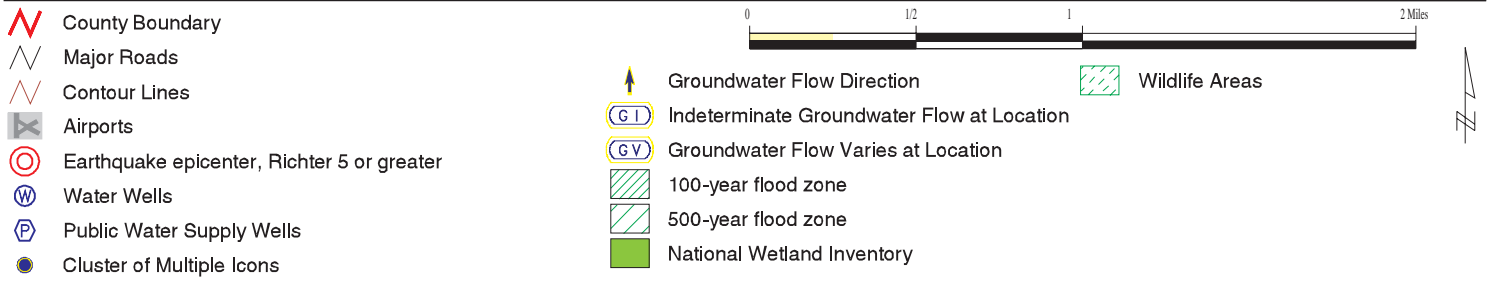
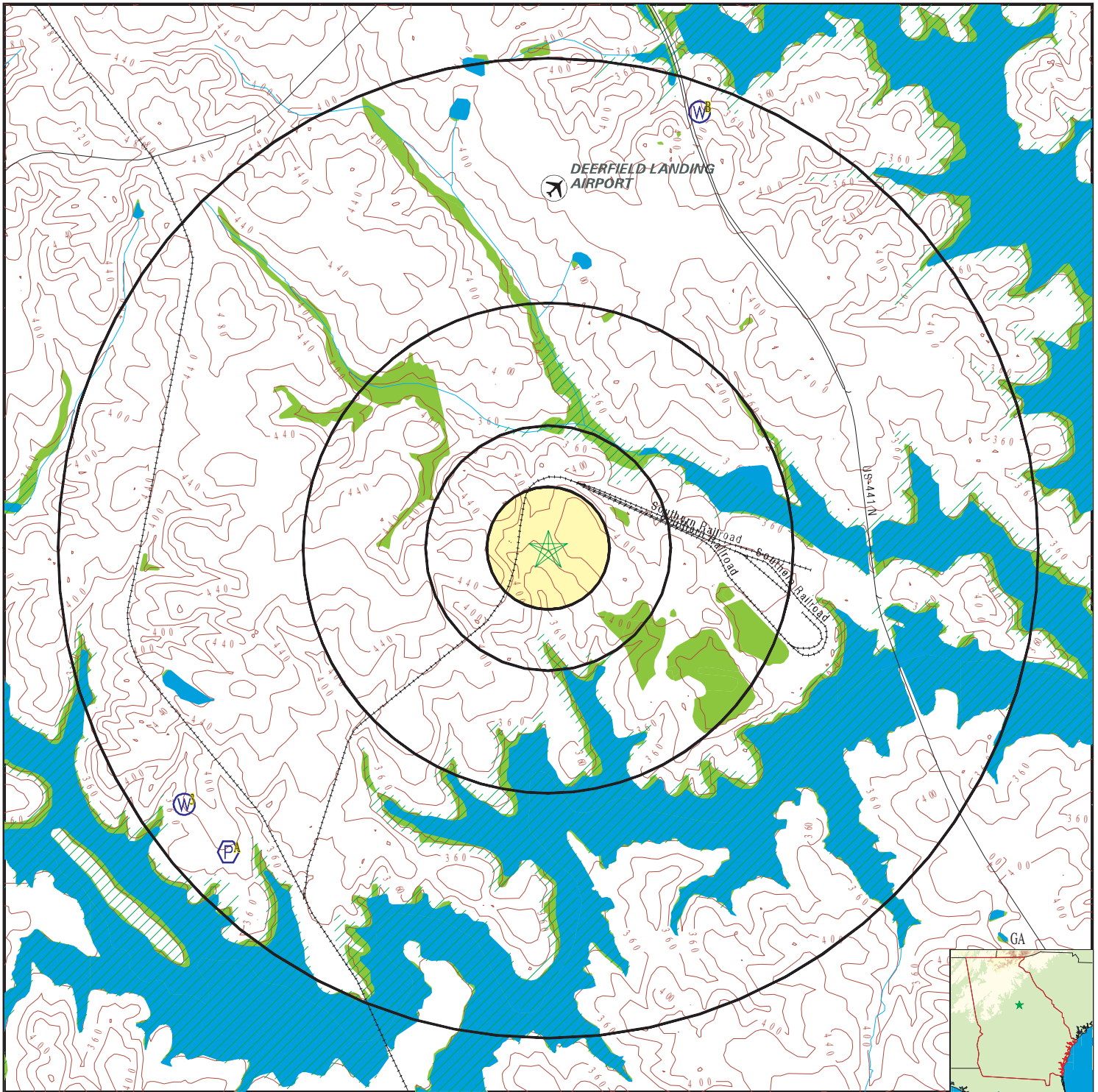
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	GA2370006	1 - 2 Miles SW
A2	GA2370008	1 - 2 Miles SW

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

# PHYSICAL SETTING SOURCE MAP - 6754839.1s



SITE NAME: Plant Branch  
 ADDRESS: 1100 Milledgeville Rd  
 Eatonton GA 31024  
 LAT/LONG: 33.196742 / 83.31763

CLIENT: Golder Associates, Inc.  
 CONTACT: Jude Waguespack  
 INQUIRY #: 6754839.1s  
 DATE: November 17, 2021 6:47 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**A1**  
**SW**  
**1 - 2 Miles**  
**Lower**

**FRDS PWS      GA2370006**

Epa region:	04	State:	GA
Pwsid:	GA2370006	Pwsname:	PINE FOREST SUBDIVISION
Cityserved:	Not Reported	Stateserved:	GA
Ziperved:	Not Reported	Fipscounty:	13237
Status:	Closed	Retpopsrvd:	1003
Pwssvconn:	388	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	ARCHEBELLE, DONNA	Contactorgname:	ARCHEBELLE, DONNA
Contactphone:	706-485-5252	Contactaddress1:	POB 3639
Contactaddress2:	Not Reported	Contactcity:	EATONTON
Contactstate:	GA	Contactzip:	31024-3639
Pwsactivitycode:	I		
Pwsid:	GA2370006	Facid:	15132
Facname:	PARCEL B/451 AVANT RD PLANT #4		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
Pwsid:	GA2370006	Facid:	16589
Facname:	160 BEAR CREEK EAST PLANT #5		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
Pwsid:	GA2370006	Facid:	16646
Facname:	143 EDGEWATER DRIVE PLANT #6		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
Pwsid:	GA2370006	Facid:	3517
Facname:	L525/308 LITTLE RIVER TRAILPLANT #3		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		
PWS ID:	GA2370006	PWS name:	PINE FOREST SUBDIVISION
Address:	POB 390	Care of:	GREAT SOUTHEAST UTILITY CO.
City:	GREENSBORO	State:	GA
Zip:	306420390	Owner:	PINE FOREST SUBDIVISION
Source code:	Ground water	Population:	629
PWS ID:	GA2370006	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	PINE FOREST SUBDIVISION
PWS type code:	C	Retail population served:	1003
Contact:	ARCHEBELLE, DONNA	Contact address:	663 GODFREY RD.
Contact address:	EATONTON	Contact city:	GA
Contact state:	31	Contact zip:	706-485-52
Contact telephone:	Not Reported		
County:	PUTNAM	Source:	Ground water
Treatment Objective:	DISINFECTION	Process:	HYPOCHLORINATION, POST



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Population:	629		
PWS ID:	GA2370006	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000564	System name:	PINE FOREST SUBDIVISION
System address:	GREAT SE UTILITY COMPANY	System address:	POB 390
System city:	GREENSBORO	System state:	GA
System zip:	306420390		
Population served:	501 - 1,000 Persons	Treatment:	Treated
Latitude:	335554	Longitude:	0832024
Latitude:	331044	Longitude:	0832025
State:	GA	Latitude degrees:	33
Latitude minutes:	10	Latitude seconds:	44.0000
Longitude degrees:	83	Longitude minutes:	20
Longitude seconds:	25.0000		
State:	GA	Latitude degrees:	33
Latitude minutes:	19	Latitude seconds:	39.0000
Longitude degrees:	83	Longitude minutes:	21
Longitude seconds:	6.0000		
Violation id:	20101	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	01/01/2000
Cmp edt:	12/31/2000		
Violation id:	20301	Orig code:	S
State:	GA	Violation Year:	1997
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/1997
Cmp edt:	Not Reported		
Violation id:	20401	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2000
Cmp edt:	Not Reported		
Violation id:	20604	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		
Violation id:	20705	Orig code:	S

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

State:	GA	Violation Year:	2003
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2003
Cmp edt:	Not Reported		
Violation id:	20805	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2005
Cmp edt:	Not Reported		
Violation id:	21008	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		
Violation id:	21109	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2009
Cmp edt:	Not Reported		
Violation id:	21209	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2009
Cmp edt:	07/31/2009		
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St No addtl Formal Action needed		
Enforcement Category:	Informal		
Violation ID:	20201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	20301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20401	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	07/22/2003
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	20401	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/24/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20604	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/23/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20604	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/14/2005
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/01/2004
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/27/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	12/01/2004
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	20805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/08/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	21008	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	07/09/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	21109	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	08/05/2009
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	21109	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/07/2009
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	21209	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	08/19/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	21209	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	08/19/2009
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20101
Contaminant:	NITRATE	Violation type:	3
Compliance start date:	1/1/2000 0:00:00	Compliance end date:	12/31/2000 0:00:00
Enforcement date:	9/6/2001 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	0		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20101
Contaminant:	NITRATE	Violation type:	3
Compliance start date:	1/1/2000 0:00:00	Compliance end date:	12/31/2000 0:00:00
Enforcement date:	9/6/2001 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	0		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20101
Contaminant:	NITRATE	Violation type:	3
Compliance start date:	1/1/2000 0:00:00	Compliance end date:	12/31/2000 0:00:00
Enforcement date:	9/6/2001 0:00:00		
Enforcement action:	State No Additional Formal Action Needed		
Violation measurement:	0		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20301
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/1997 0:00:00	Compliance end date:	12/31/2025 0:00:00
Enforcement date:	9/20/2001 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20401
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2000 0:00:00	Compliance end date:	7/24/2001 0:00:00
Enforcement date:	7/22/2003 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20401
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2000 0:00:00	Compliance end date:	7/24/2001 0:00:00
Enforcement date:	7/24/2001 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20604
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2004 0:00:00	Compliance end date:	7/23/2004 0:00:00
Enforcement date:	7/1/2004 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20604
Contaminant:	7000	Violation type:	71

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Compliance start date:	7/1/2004 0:00:00	Compliance end date:	7/23/2004 0:00:00
Enforcement date:	7/23/2004 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	12/1/2004 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	12/1/2004 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	7/14/2005 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20705
Contaminant:	LEAD & COPPER RULE	Violation type:	Follow-up and Routine Tap Sampling
Compliance start date:	10/1/2003 0:00:00	Compliance end date:	7/27/2004 0:00:00
Enforcement date:	7/27/2004 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20805
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	7/8/2005 0:00:00
Enforcement date:	7/1/2005 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	20805
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	7/8/2005 0:00:00
Enforcement date:	7/8/2005 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		
PWS name:	PINE FOREST SUBDIVISION	Population served:	1003
PWS type code:	C	Violation ID:	21008
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	12/31/2025 0:00:00
Enforcement date:	No Enf Action as of	Enforcement action:	7/8/2009 0:00:00
Violation measurement:	Not Reported		

**A2  
SW  
1 - 2 Miles  
Lower**

**FRDS PWS      GA2370008**

Epa region:	04	State:	GA
Pwsid:	GA2370008	Pwsname:	TALL TIMBERS-OAK OPENINGS
Cityserved:	Not Reported	Stateserved:	GA

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Zip served:	Not Reported	Fips county:	13237
Status:	Closed	Retpopsrvd:	733
Pwssvconn:	279	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	ARCHEBELLE, DONNA	Contactorgname:	ARCHEBELLE, DONNA
Contactphone:	706-485-5252	Contactaddress1:	POB 3639
Contactaddress2:	Not Reported	Contactcity:	EATONTON
Contactstate:	GA	Contactzip:	31024-3639
Pwsactivitycode:	I		
Pwsid:	GA2370008	Facid:	15117
Facname:	WELLS 2 & 3 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA2370008	Facid:	15126
Facname:	116 BLUEGILL RD/L#1 - WELL #5 PLANT	Facactivitycode:	A
Factype:	Treatment_plant	Trtprocess:	hypochlorination, post
Trtobjective:	disinfection		
Factypecode:	TP		
Pwsid:	GA2370008	Facid:	21184
Facname:	308 BLUEGILL ROAD-LOT 215 WELL #6 PLANT	Facactivitycode:	A
Factype:	Treatment_plant	Trtprocess:	hypochlorination, post
Trtobjective:	disinfection		
Factypecode:	TP		
PWS ID:	GA2370008	PWS name:	TALL TIMBERS-OAK OPENINGS
Address:	POB 390	Care of:	GREAT SOUTHEAST UTILITY CO.
City:	GREENSBORO	State:	GA
Zip:	306420390	Owner:	TALL TIMBERS-OAK OPENINGS
Source code:	Ground water	Population:	465
PWS ID:	GA2370008	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	County:	PUTNAM
Source:	Ground water	Treatment Objective:	DISINFECTION
Process:	HYPOCHLORINATION, POST	Population:	465
PWS ID:	GA2370008	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000465	System name:	TALL TIMBERS-OAK OPENINGS
System address:	GREAT SE UTILITY COMPANY	System address:	POB 390
System city:	GREENSBORO	System state:	GA
System zip:	306420390		
Population served:	101 - 500 Persons	Treatment:	Treated
Latitude:	335554	Longitude:	0832024
Latitude:	331042	Longitude:	0832025
State:	GA	Latitude degrees:	33
Latitude minutes:	10	Latitude seconds:	42.0000
Longitude degrees:	83	Longitude minutes:	20
Longitude seconds:	25.0000		
Violation id:	10101	Orig code:	S
State:	GA	Violation Year:	2000
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Rule code: 331  
 Violation measur: 0  
 State mcl: 0  
 Cmp edt: 12/31/2000

Rule name: Nitrates  
 Unit of measure: Not Reported  
 Cmp bdt: 01/01/2000

Violation id: 10201  
 State: GA  
 Contamination code: 1040  
 Violation code: 03  
 Rule code: 331  
 Violation measur: 0  
 State mcl: 0  
 Cmp edt: 12/31/2000

Orig code: S  
 Violation Year: 2000  
 Contamination Name: Nitrate  
 Violation name: Monitoring, Regular  
 Rule name: Nitrates  
 Unit of measure: Not Reported  
 Cmp bdt: 01/01/2000

Violation id: 10301  
 State: GA  
 Contamination code: 5000  
 Violation code: 52  
 Rule code: 350  
 Violation measur: Not Reported  
 State mcl: Not Reported  
 Cmp edt: Not Reported

Orig code: S  
 Violation Year: 1995  
 Contamination Name: Lead and Copper Rule  
 Violation name: Follow-up Or Routine LCR Tap M/R  
 Rule name: LCR  
 Unit of measure: Not Reported  
 Cmp bdt: 10/01/1995

Violation id: 10501  
 State: GA  
 Contamination code: 5000  
 Violation code: 52  
 Rule code: 350  
 Violation measur: Not Reported  
 State mcl: Not Reported  
 Cmp edt: Not Reported

Orig code: S  
 Violation Year: 2000  
 Contamination Name: Lead and Copper Rule  
 Violation name: Follow-up Or Routine LCR Tap M/R  
 Rule name: LCR  
 Unit of measure: Not Reported  
 Cmp bdt: 10/01/2000

Violation id: 10704  
 State: GA  
 Contamination code: 7000  
 Violation code: 71  
 Rule code: 420  
 Violation measur: Not Reported  
 State mcl: Not Reported  
 Cmp edt: Not Reported

Orig code: S  
 Violation Year: 2004  
 Contamination Name: Consumer Confidence Rule  
 Violation name: CCR Complete Failure to Report  
 Rule name: CCR  
 Unit of measure: Not Reported  
 Cmp bdt: 07/01/2004

Violation id: 10805  
 State: GA  
 Contamination code: 7000  
 Violation code: 71  
 Rule code: 420  
 Violation measur: Not Reported  
 State mcl: Not Reported  
 Cmp edt: Not Reported

Orig code: S  
 Violation Year: 2005  
 Contamination Name: Consumer Confidence Rule  
 Violation name: CCR Complete Failure to Report  
 Rule name: CCR  
 Unit of measure: Not Reported  
 Cmp bdt: 07/01/2005

Violation id: 10906  
 State: GA  
 Contamination code: 5000  
 Violation code: 52  
 Rule code: 350  
 Violation measur: Not Reported  
 State mcl: Not Reported  
 Cmp edt: Not Reported

Orig code: S  
 Violation Year: 2005  
 Contamination Name: Lead and Copper Rule  
 Violation name: Follow-up Or Routine LCR Tap M/R  
 Rule name: LCR  
 Unit of measure: Not Reported  
 Cmp bdt: 10/01/2005

Violation id: 11008  
 State: GA  
 Contamination code: 7000

Orig code: S  
 Violation Year: 2008  
 Contamination Name: Consumer Confidence Rule

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200002	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Max Contaminant Level, Monthly (TCR)		
Violation start date:	070192	Violation end date:	073192
Violation period (months):	001	Violation awareness date:	Not Reported
Major violator:	Not Reported	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	05/15/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	10/03/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	05/15/2001
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal

Violation ID:	10101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St No addtl Formal Action needed		
Enforcement Category:	Informal		

Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal

Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St No addtl Formal Action needed		
Enforcement Category:	Informal		

Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	10/03/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	10201	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/06/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	10301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/20/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	10501	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	08/17/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10501	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	07/22/2003
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Informal
Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/23/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10704	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	07/01/2004
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/08/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/12/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/07/2006
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	02/07/2006
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/17/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	11008	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	07/09/2008
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

**3**  
**SW**  
**1 - 2 Miles**  
**Lower**

**FED USGS USGS40000262254**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z020	Type:	Well
Description:	Not Reported	HUC:	03070101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**B4**  
**NNE**  
**1 - 2 Miles**  
**Lower**

**FED USGS      USGS40000262392**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z016	Type:	Well
Description:	Not Reported	HUC:	03070101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**B5**  
**NNE**  
**1 - 2 Miles**  
**Lower**

**FED USGS      USGS40000262391**

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	19Z017	Type:	Well
Description:	Not Reported	HUC:	03070101
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for PUTNAM County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level  $\geq$  2 pCi/L and  $\leq$  4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 31024

Number of sites tested: 10

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.190 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetlands Inventory

Source: Georgia GIS Clearinghouse

Telephone: 706-542-1581

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Georgia Public Supply Wells

Source: Georgia Department of Community Affairs

Telephone: 404-894-0127

#### USGS Georgia Water Wells

Source: USGS, Georgia District Office

Telephone: 770-903-9100

## OTHER STATE DATABASE INFORMATION

### DNR Managed Lands

Source: Department of Natural Resources

Telephone: 706-557-3032

This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

### RADON

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

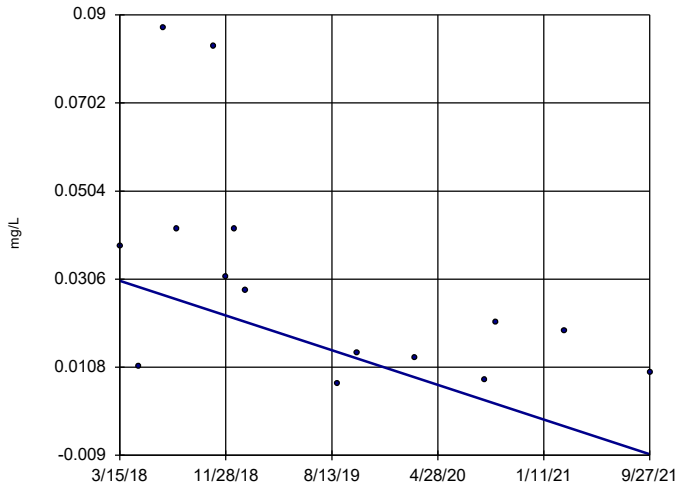
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**APPENDIX B**

**SENS SLOPE  
MAN KENDALL TREND**

### Sen's Slope Estimator

BRGWC-50



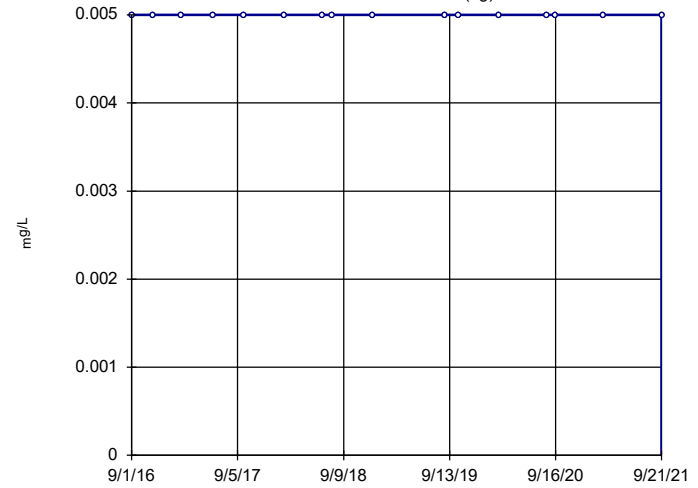
n = 15  
 Slope = -0.01101  
 units per year.  
 Mann-Kendall  
 statistic = -46  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cadmium Analysis Run 12/2/2021 10:18 AM  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-12I (bg)



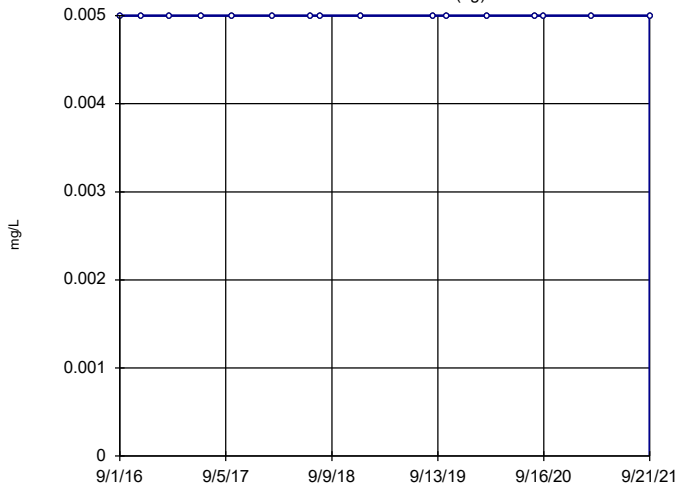
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 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 0  
 critical = 58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-12S (bg)



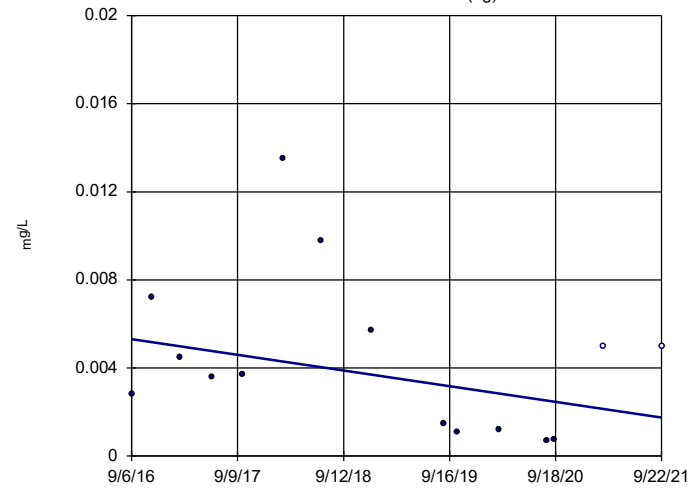
n = 16  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = 0  
 critical = 58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

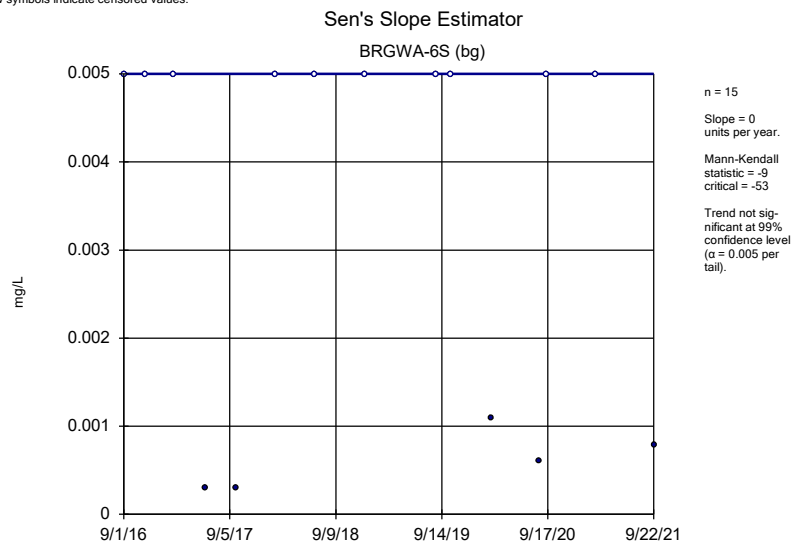
BRGWA-23S (bg)



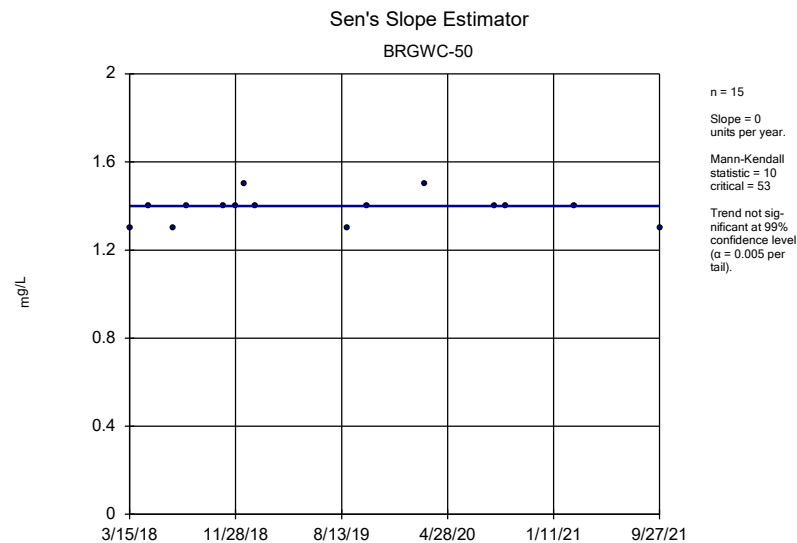
n = 15  
 Slope = -0.0007052  
 units per year.  
 Mann-Kendall  
 statistic = -26  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
 Plant Branch Client: Southern Company Data: Plant Branch AP

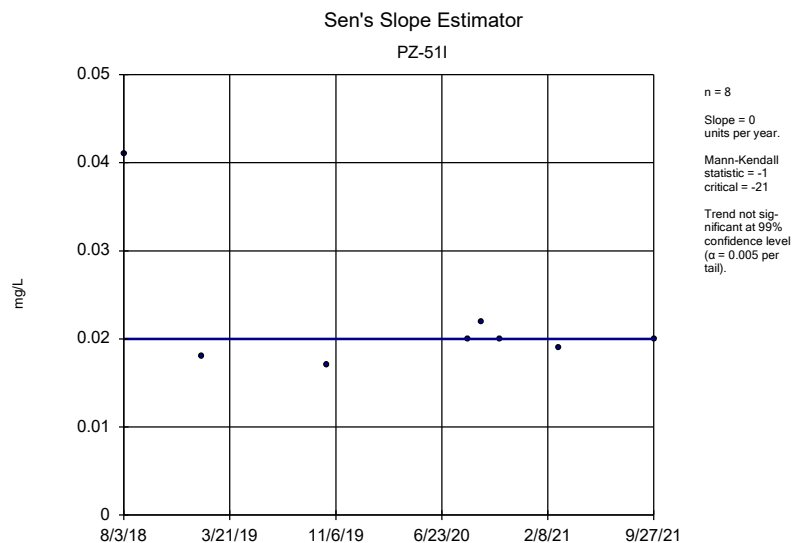




Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Cobalt Analysis Run 12/2/2021 10:18 AM  
Plant Branch Client: Southern Company Data: Plant Branch AP



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