



REPORT

2021 Semi-Annual Groundwater Monitoring and Corrective Action Report

*Georgia Power Company - Plant Branch
Ash Pond E*

Submitted to:



Georgia Power Company

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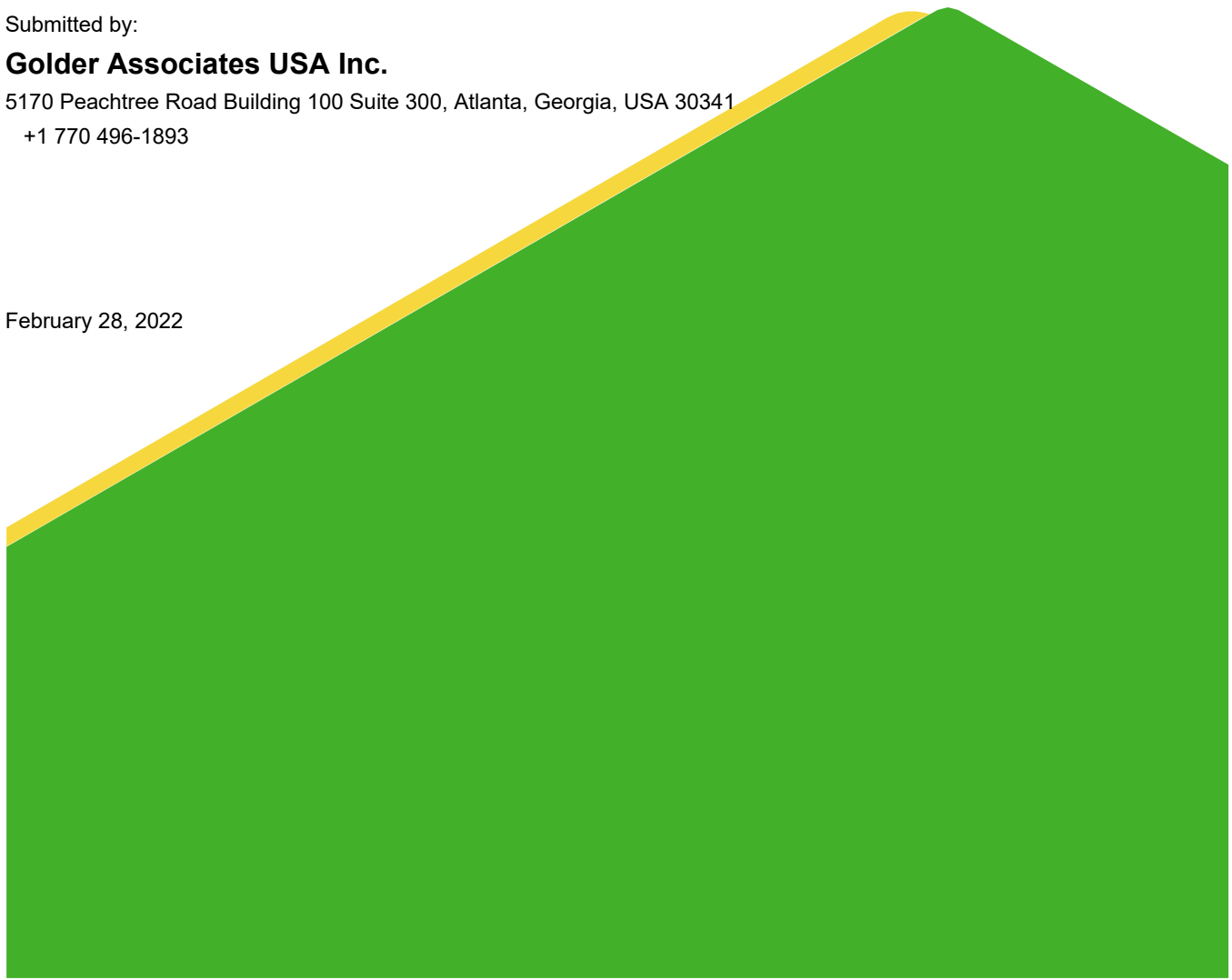
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February 28, 2022

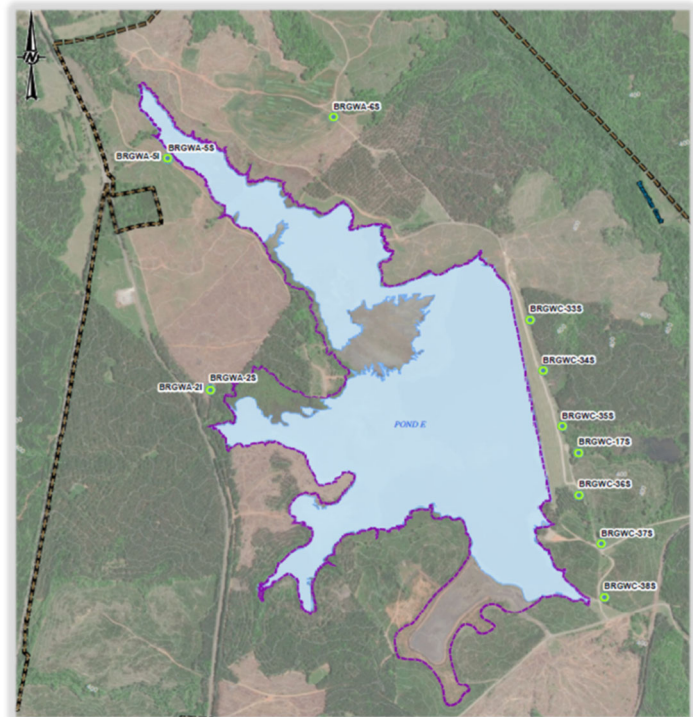


Summary

This 2021 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company - Plant Branch Ash Pond E (AP-E), 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-E 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 6¹ 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-E. The other CCR unit (AP-BCD) 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Branch formerly operated as a coal-fired power plant since the 1960s until its retirement in 2015; Plant Branch is no longer active and is decommissioned.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-E began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater quality, an assessment monitoring program was established on November 13, 2019. During the 2021 semi-annual reporting period, the Site remained in assessment monitoring.



Plant Branch

¹ 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

Pursuant to the options of 40 CFR 257.95 as adopted by 391-3-4-.10, an Alternate Source Demonstration (ASD) was prepared in response to statistically significant levels (SSLs) of beryllium and cobalt in samples from compliance groundwater monitoring wells. The evaluation demonstrated that statistically significant levels of beryllium and cobalt identified in groundwater are due to the presence of naturally-occurring beryllium and cobalt present in soils and bedrock, and not caused by a release from the CCR unit. The ASD was submitted to the GA Environmental Protection Division (EPD) on July 28, 2020 (Golder, 2020) and is discussed in more detail in Section 4.3.

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-E certified detection monitoring network for this semi-annual reporting period. One groundwater sampling event for AP-E was conducted in September 2021. Groundwater samples were collected and analyzed for Appendix III² and Appendix IV³ required monitoring parameters from each of the compliance 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 SSLs of Appendix IV constituents above the groundwater protection standards as summarized below.

Appendix III Constituent	September 2021
Boron	BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Calcium	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Chloride	BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Fluoride	BRGWC-38S
pH	BRGWC-33S, BRGWC-36S, BRGWC-37S, BRGWC-38S
Sulfate	BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Total Dissolved Solids	BRGWC-17S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Appendix IV Constituent	September 2021
Beryllium	BRGWC-38S
Cobalt	BRGWC-33S, BRGWC-38S

Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to the website and provided to GA EPD semi-annually.

² Appendix III: boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids

³ 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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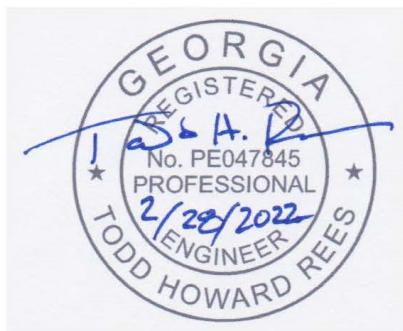
Certification Statement

This 2021 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company Plant Branch Ash Pond E (AP-E) 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's (Georgia Power) Plant Branch Ash Pond E, referred to as AP-E. 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 may be cited within this report. Plant Branch ceased producing electricity prior to April 2015, and therefore, Ash Pond E is not subject to the US EPA CCR Rule.

This report documents the activities completed at Branch AP-E between July 2021 and December 2021. Activities completed at Branch AP-BCD 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 CCR 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 Ash Pond E (AP-E).

Plant Branch ceased producing electricity prior to April 2015. Therefore, AP-E is not subject to the Federal CCR Rule. A CCR Unit Solid Waste Handling Permit application for AP-E 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, 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-E. 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-E monitoring well network and piezometers at Plant Branch. For reference, the AP-BCD well network is also included in Table 1.

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 upper bedrock.

2.0 GROUNDWATER MONITORING ACTIVITIES

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

Pursuant to § 257.90(e)(3), Table 2, Groundwater Sampling Event Summary - AP-E, presents a summary of groundwater sampling events completed for AP-E.

2.1 Monitoring Well Installation and Maintenance

There was no change to the certified groundwater monitoring system for the 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-E at Plant Branch 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-E 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. Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for AP-E and the status of the monitoring network.

During the September 2021 semi-annual sampling event, groundwater samples from each detection 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 Forms, and Data Validation Summaries.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

The sampling event completed during this reporting period for AP-E 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 from the monitoring well network 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-E is to the east-northeast and east-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, 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 Velocity Calculations – AP-E (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 0.07 to 0.27 feet per day (or approximately 25 to 100 feet per year) across AP-E. 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-E at Plant Branch.

3.3 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a) and 391-3-4-.10(6). Monitoring wells were purged and sampled using low-flow sampling procedures. Dedicated and/or non-dedicated low-flow pneumatic bladder pumps 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 instrument) along with a separate turbidity meter.

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

- 0.1 standard units for pH
- 5% for specific conductance
- $\pm 10\%$ 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 instrument, 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 – Pond E (September 2021), presents a tabulated summary of the September 2021 sampling results. 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 control samples (QA/QC) 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 following the established statistical method for AP-E. 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-E was developed in accordance with § 257.93(f) and 391-3-4-.10(6) using methodology presented in Statistical Analysis of Groundwater Data at 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, updating GWPS for cobalt, lead, lithium, and molybdenum as described above 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 updated GWPS have not yet been incorporated in the current GA 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-E (Table 6) 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-E have been statistically analyzed in accordance with the Site's certified Statistical Analysis Plan. The statistical results of the September 2021 monitoring events and resampling event are included in Appendix B, Statistical Analyses.

4.2.1 September 2021 Appendix III Statistical Results

Based on the statistical results presented in Appendix B, 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-E 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 are identified below in AP-E September 2021 Confidence Interval Statistically Significant Level Exceedances.

AP-E September 2021 Confidence Interval Statistically Significant Level Exceedances	
AP-E Monitoring Well	Appendix IV Parameter
BRGWC-38S	Beryllium, Cobalt
BRGWC-33S	Cobalt

4.3 Alternate Source Demonstration

Pursuant to the options of 40 CFR 257.95 as adopted by 391-3-4-.10, an Alternate Source Demonstration (ASD) was prepared in response to SSLs identified for beryllium and cobalt in groundwater monitoring wells. The ASD was submitted to GA EPD on July 28, 2020 (Golder 2020).

The evaluation presented in the document demonstrates that statistically significant levels of beryllium and cobalt identified in groundwater are due to the presence of naturally-occurring beryllium and cobalt present in soils and bedrock, and not caused by a release from the CCR unit.

Therefore, no further actions (i.e., Assessment of Corrective Measures) are warranted at this time.

5.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-E confirm SSIs of Appendix III groundwater monitoring parameters above background and SSLs of Appendix IV groundwater monitoring parameter above the established GWPS. An ASD report was submitted on July 28, 2020 that documents the natural occurrence of target Appendix IV SSLs in the Site groundwater and that these exceedances are not caused by AP-E. However, based on the results from the September 2021 sampling event, AP-E will remain in assessment monitoring.

6.0 CONCLUSIONS AND FUTURE ACTIONS

This 2021 Semi-Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant Branch AP-E 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. Plant Branch submitted an ASD for each of the identified SSLs following the rule and timelines specified in 40 CFR 257.95. 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 meet the requirements of 40 C.F.R. §257.95(b) and (d)(1) and will include sampling and analysis of all Appendix III and IV constituents.

7.0 REFERENCES

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

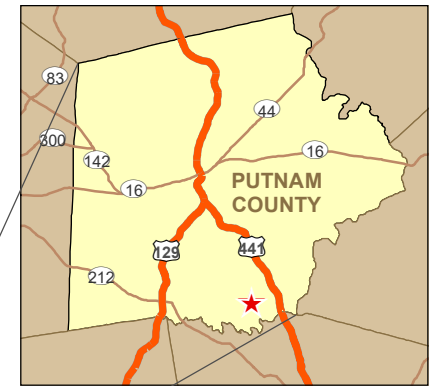
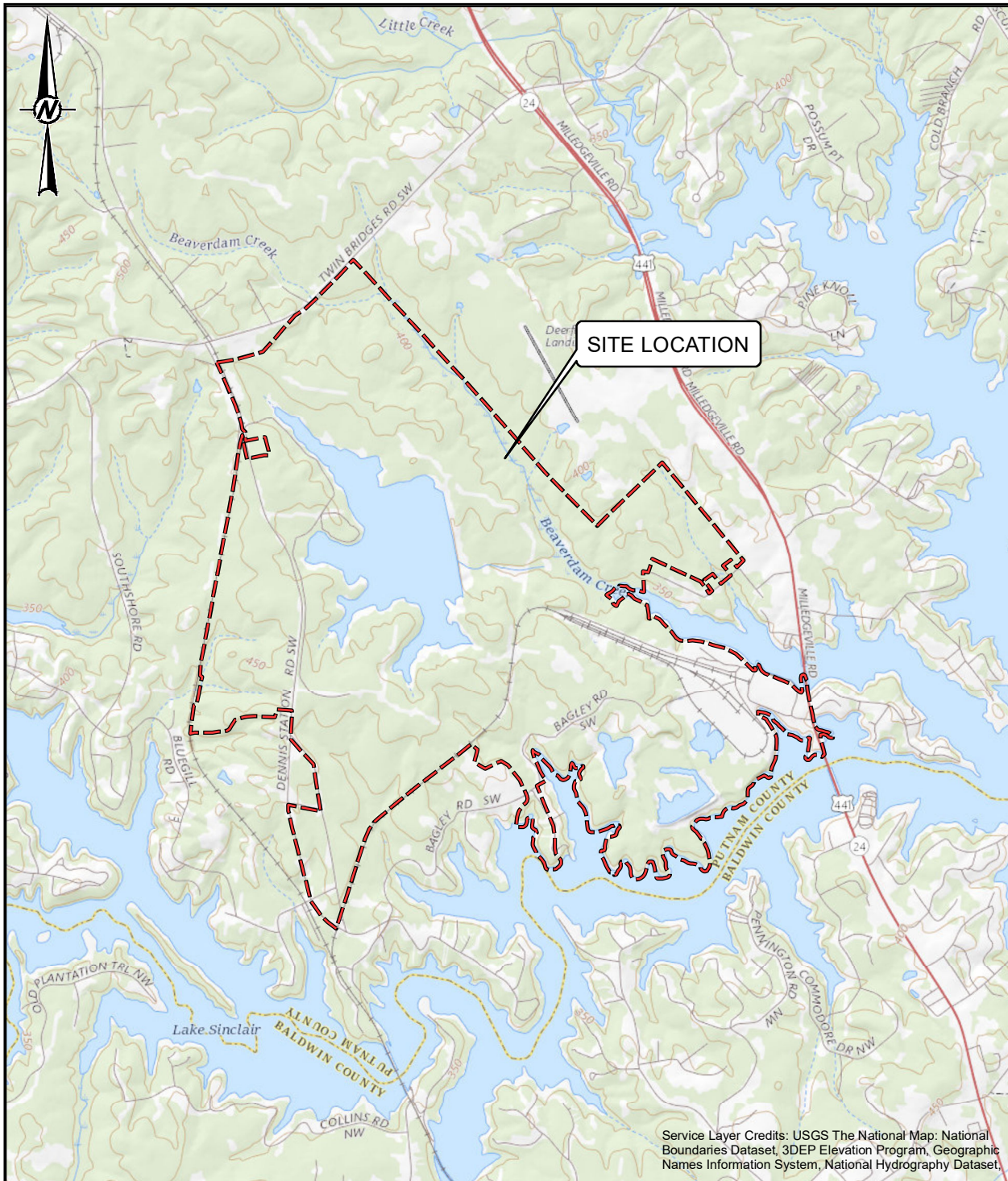
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Figures & Tables



CLIENT
 GEORGIA POWER COMPANY
 PLANT BRANCH



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

TITLE
SITE LOCATION MAP

CONSULTANT



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

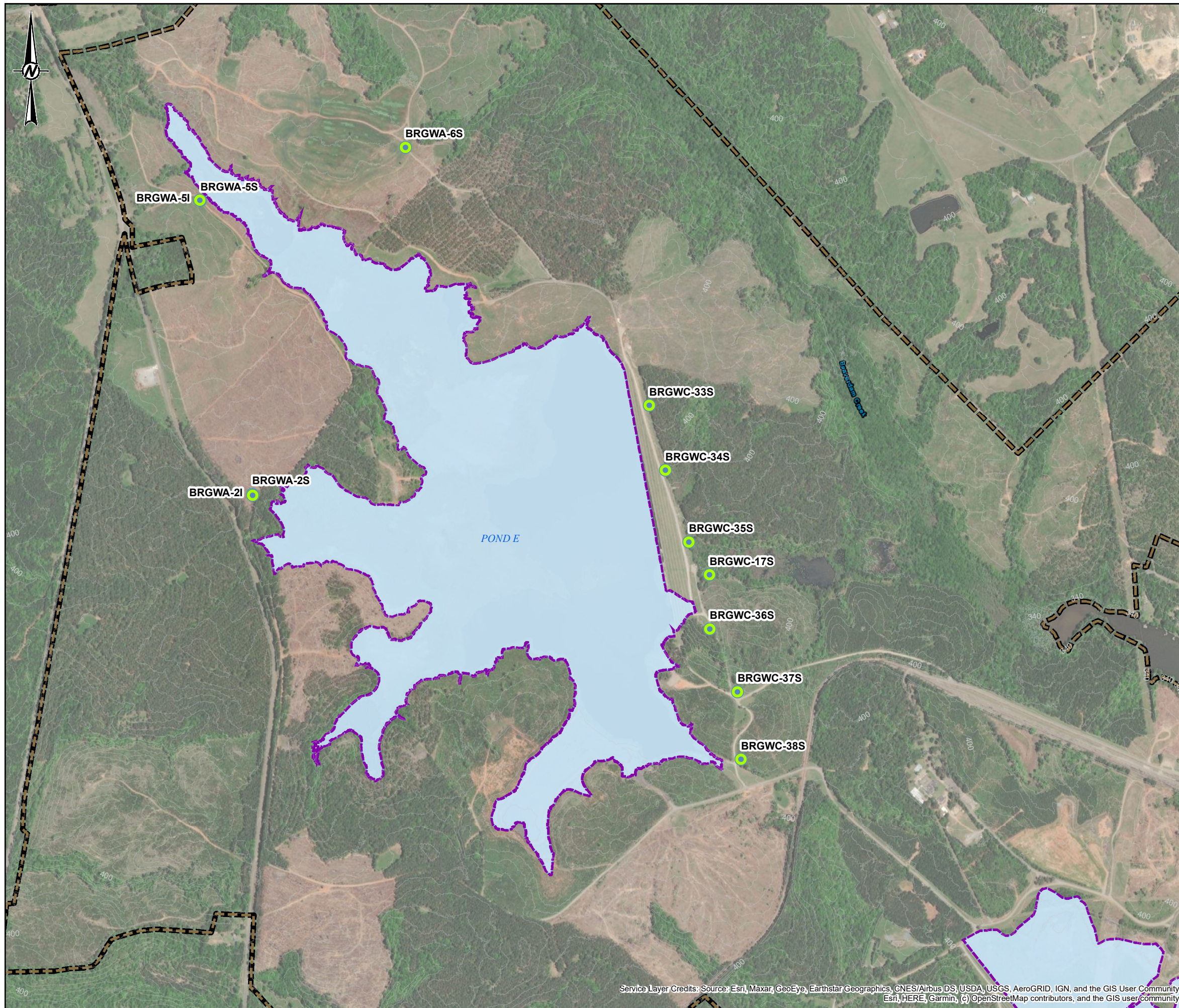
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CONTROL
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Rev.
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FIGURE
 1

Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset.



LEGEND

- MONITORING WELL
- 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. PIEZOMETER AND WELL LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC. (2020)
5. 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-E

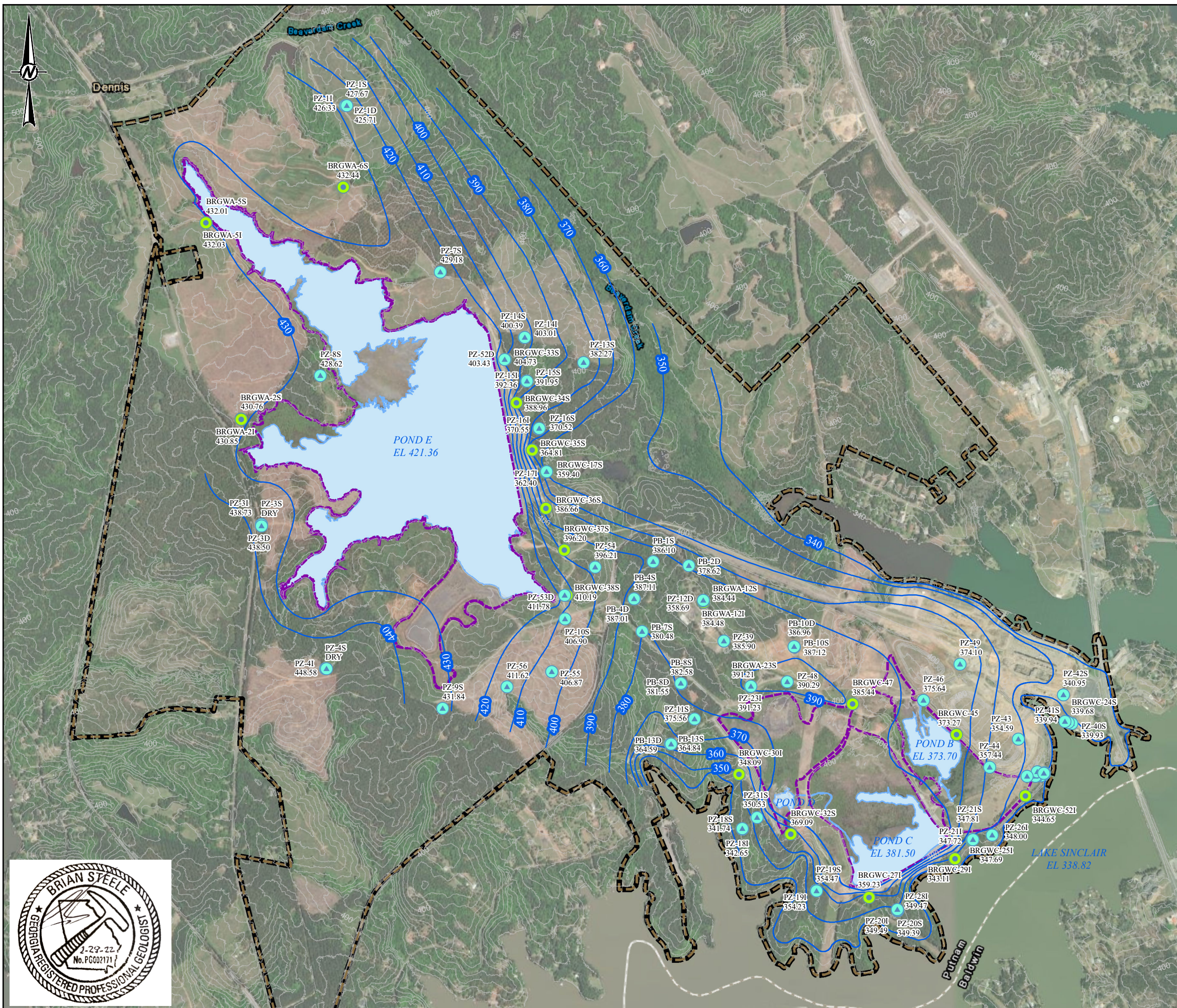
TITLE
SITE PLAN AND MONITORING WELL LOCATION MAP

CONSULTANT	YYYY-MM-DD	2020-05-21
	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK
	APPROVED	DLP

PROJECT No. 166625418 CONTROL 1666254V001-GIS.mxd Rev. 0 FIGURE 2

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

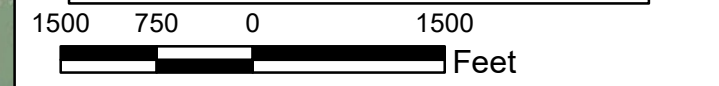


LEGEND

- 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, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
ESRI, HERE, GARMIN, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
 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-E

TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 20, 2021

CONSULTANT	YYYY-MM-DD	2021-06-30
GOLDER MEMBER OF WSP	PREPARED	BAS
	DESIGN	DC
	REVIEW	BS
	APPROVED	RK

PROJECT No. 166625421 CONTROL 1666254V001-GIS.mxd Rev. 1 FIGURE **3**



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 ^[3]	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) ^{[1][2]}	Ground Surface Elevation (feet NAVD88) ^[1]	Top of Casing Elevation (feet NAVD88) ^[1]	Total Depth (feet bgs) ^[3]	Top of Screen Elevation (feet NAVD88) ^[1]	Screen Tip Elevation (feet NAVD88) ^[1]	Screen Length	Date of Installation
ASH POND BCD (AP-BCD) DETECTION MONITORING WELL NETWORK													
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

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 Georgia Power Company - Plant Branch

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened ^[3]	Latitude	Longitude	Ground Surface Elevation at Concrete Pad (feet NAVD88) ^{[1][2]}	Ground Surface Elevation (feet NAVD88) ^[1]	Top of Casing Elevation (feet NAVD88) ^[1]	Total Depth (feet bgs) ^[3]	Top of Screen Elevation (feet NAVD88) ^[1]	Screen Tip Elevation (feet NAVD88) ^[1]	Screen Length	Date of Installation
ASH POND E (AP-E) DETECTION MONITORING WELL NETWORK													
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
ASH POND BCD (AP-BCD) ASSESSMENT MONITORING WELL NETWORK													
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

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PIEZOMETERS													
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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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

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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-E
 Georgia Power Company - Plant Branch

Well ID	Hydraulic Location	Summary of Sampling Events	Status of Monitoring Well
		September 2021	
Purpose of Sampling Event		Assessment	
AP-E			
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
BRGWC-17S	Downgradient	X	Assessment
BRGWC-33S	Downgradient	X	Assessment
BRGWC-34S	Downgradient	X	Assessment
BRGWC-35S	Downgradient	X	Assessment
BRGWC-36S	Downgradient	X	Assessment
BRGWC-37S	Downgradient	X	Assessment
BRGWC-38S	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) ^[1]	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
ASH POND BCD (AP-BCD) DETECTION MONITORING WELL NETWORK		
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) ^[1]	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
ASH POND E (AP-E) DETECTION MONITORING WELL NETWORK		
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
ASH POND BCD (AP-BCD) ASSESSMENT MONITORING WELL NETWORK		
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) ^[1]	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
PIEZOMETERS		
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) ^[1]	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
PIEZOMETERS		
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) ^[1]	GROUNDWATER ELEVATIONS (FEET NAVD88)
		9/20/2021
TEMPORARY LANDFILL PIEZOMETERS		
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-E (September 2021)
 Georgia Power Company - Plant Branch

Flow Paths	Groundwater Elevation (feet NAVD88) ⁷	ΔH (feet) ¹	ΔL (feet) ²	Hydraulic Gradient ($\Delta H/\Delta L$) ³	Average Hydraulic Conductivity, K (feet per day) ⁵	Assumed Effective Porosity (n_e) ⁶	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
AP-E September 20, 2021								
BRGWA-5S / BRGWC-33S	432.01	27.28	5110.0	0.005	2.73 to 5.47	0.2	0.07 to 0.14	24.9 to 49.9
	404.73							
PZ-4I / BRGWC-38S	448.58	38.39	3917.0	0.010	2.73 to 5.47	0.2	0.14 to 0.27	49.8 to 99.8
	410.19							

Notes:

1. ΔH = Change in groundwater elevation.
2. ΔL = 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-E (September 2021)
 Georgia Power Company - Plant Branch

Analyte	Units	DETECTION MONITORING WELLS											
		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
		9/22/2021	9/22/2021	9/21/2021	9/21/2021	9/22/2021	9/22/2021	9/22/2021	9/22/2021	9/23/2021	9/22/2021	9/23/2021	9/23/2021
Appendix III													
BORON, TOTAL	mg/L	< 0.0086	< 0.0086	< 0.0086	< 0.0086	< 0.0086	0.020 J	1.1	2.2	2.0	1.1	< 0.0086	1.4
CALCIUM, TOTAL	mg/L	4.3	15.9	19.1	14.1	4.1	36.4	28.9	76.9	70.5	53.7	3.7	36.8
CHLORIDE, TOTAL	mg/L	1.5	1.7	3.2	3.2	2.1	4.6	2.7	5.6	6.1	7.1	1.9	6.0
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	0.056 J	< 0.050	< 0.050	0.10	0.068 J	0.10	0.073 J	0.054 J	< 0.050	0.85
pH	S.U.	6.06	6.78	6.36	6.32	6.48	6.22	4.81	5.93	6.08	5.53	5.85	4.05
SULFATE, TOTAL	mg/L	< 0.50	5.2	< 0.50	2.3	< 0.50	123	94.6	232	258	234	< 0.50	318
TOTAL DISSOLVED SOLIDS	mg/L	66.0	129	104	108	62.0	323	190	406	511	457	49.0	528
Appendix IV													
ANTIMONY, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 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	0.0020 J
BARIUM, TOTAL	mg/L	0.0097	0.0075	0.038	0.025	0.014	0.043	0.019	0.021	0.036	0.028	0.027	0.014
BERYLLIUM, TOTAL	mg/L	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	< 0.000054	0.0012	0.00015 J	0.00016 J	0.000084 J	< 0.000054	0.0071
CADMIUM, TOTAL	mg/L	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.00019 J	0.00033 J	< 0.00011	< 0.00011	< 0.00011	0.00048 J
CHROMIUM, TOTAL	mg/L	0.0091	< 0.0011	0.0044 J	0.0064	0.014	0.0091	< 0.0011	< 0.0011	0.0065	0.0065	0.0016 J	0.0040 J
COBALT, TOTAL	mg/L	< 0.00039	0.0015 J	< 0.00039	0.00071 J	0.00078 J	< 0.00039	0.024	0.0075	< 0.00039	< 0.00039	< 0.00039	0.17
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	0.056 J	< 0.050	< 0.050	0.10	0.068 J	0.10	0.073 J	0.054 J	< 0.050	0.85
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	0.0011 J	0.0080 J	< 0.00073	0.0022 J	0.0026 J	< 0.00073	0.019 J
MERCURY, TOTAL	mg/L	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00010 J	0.00012 J	0.00015 J	0.00011 J	0.00010 J	0.00011 J	0.00022
MOLYBDENUM, TOTAL	mg/L	< 0.00074	0.0012 J	< 0.00074	0.0020 J	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074
RADIUM (226 + 228)	pCi/L	1.33 U	0.349 U	0.860 U	0.182 U	0.943 U	0.734 U	0.382 U	0.910 U	0.394 U	0.808 U	0.0780 U	1.40
SELENIUM, TOTAL	mg/L	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	0.0015 J	< 0.0014	< 0.0014	< 0.0014	0.0032 J	< 0.0014	0.031
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	0.00022 J

- 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
SUMMARY OF BACKGROUND LEVELS AND GWPS - AP-E
 Georgia Power Company - Plant Branch

Analyte	Units	Maximum Contaminant Level (MCL)	Site Specific Background September 2021 ^[1]	State GWPS ^[2]
Antimony	mg/L	0.006	0.003	0.006
Arsenic	mg/L	0.01	0.005	0.01
Barium	mg/L	2	0.063	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	0.005	0.005
Fluoride	mg/L	4	0.19	4
Lead	mg/L	NA	0.0013	0.0013
Lithium	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	1.4	5
Selenium	mg/L	0.05	0.005	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.

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 RADS
Pace Project No.: 92562847

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

REPORT OF LABORATORY ANALYSIS

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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
92562847001	BRGWA-12S					
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	
92562847002	BRGWA-12I					
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	
92562847003	BRGWA-23S					
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

This report shall not be reproduced, except in full,
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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
Sample: BRGWA-12S Lab ID: 92562847001 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	0.409 ± 0.241 (0.367) C:96% T:NA	pCi/L	10/08/21 08:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0585 ± 0.397 (0.915) C:61% T:84%	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.468 ± 0.638 (1.28)	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
Sample: BRGWA-12I Lab ID: 92562847002 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	0.698 ± 0.296 (0.344) C:98% T:NA	pCi/L	10/08/21 08:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.631 ± 0.444 (0.850) C:59% T:91%	pCi/L	10/07/21 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.33 ± 0.740 (1.19)	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

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	0.813 ± 0.319 (0.347) C:100% T:NA	pCi/L	10/08/21 08:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.583 ± 0.475 (0.944) C:61% T:85%	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.40 ± 0.794 (1.29)	pCi/L	10/20/21 17:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-BCD BACKGROUND RADS

Pace Project No.: 92562847

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

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

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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#: 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)

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.



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 #:
 Project Name: Plant Branch AP-BCD Background
 Project #: 168625421

Section C
 Invoice Information:
 Attention: sscrivices@southenco.com
 Address:
 Company Name:
 Pace Quote
 Pace Project Manager: Kevin Herring
 Pace Profile #:
 Requested Analytic Filtered (Y/N)

Regulatory Agency
 State / Location
 GA

Page : 1 of 1

ITEM #	BRCWA-23S	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analytes Test	Requested Analytic Filtered (Y/N)	Residual Chlorine (Y/N)	pH = 5.72
								Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3				
1		WT	G	9/23/2021	10:10		5	2	3								
MATRIX: Drawing Water, Waste Water, Product, Solids, Oil, Wastewater, Air, Other Tests CODE: DW, WW, P, SL, OL, WP, AR, OT, TS One Character per box. Sample ids must be unique.																	
ADDITIONAL COMMENTS REIMBURSED BY / AFFILIATION: <i>grw... sample</i> DATE: 9-23-21 TIME: 8:50 ACCEPTED BY / AFFILIATION: <i>Mikson Dutton</i> DATE: 9/23 TIME: 10:47 TEMP in C: 28 Received on Ice (Y/N): Y Custody Sealed Cooler (Y/N): N Samples Intact (Y/N): Y																	

Jodi Wedgespeak / grw...

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:	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

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)?	Y	
	LCS62922	LCS62922
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

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

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
92562849001	BRGWA-5S					
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	
92562849002	BRGWA-5I					
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	
92562849003	BRGWA-2S					
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	
92562849004	BRGWA-2I					
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	

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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
92562849005	BRGWA-6S					
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	

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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
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:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.298 ± 0.226 (0.394) C:94% T:NA	pCi/L	10/08/21 08:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.562 ± 0.557 (1.16) C:61% T:84%	pCi/L	10/07/21 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.860 ± 0.783 (1.55)	pCi/L	10/20/21 17:19	7440-14-4	

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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
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:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.123 ± 0.179 (0.391) C:98% T:NA	pCi/L	10/08/21 07:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0589 ± 0.389 (0.891) C:62% T:91%	pCi/L	10/07/21 14:38	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.182 ± 0.568 (1.28)	pCi/L	10/20/21 17:19	7440-14-4	

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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
Sample: BRGWA-2S Lab ID: 92562849003 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	0.172 ± 0.153 (0.262) C:99% T:NA	pCi/L	10/08/21 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.16 ± 0.614 (1.11) C:59% T:83%	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.33 ± 0.767 (1.37)	pCi/L	10/20/21 17:19	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-BCDE BACKGROUND RADS

Pace Project No.: 92562849

Sample: BRGWA-2I **Lab ID: 92562849004** Collected: 09/22/21 10:21 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	0.115 ± 0.155 (0.326) C:100% T:NA	pCi/L	10/08/21 07:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.234 ± 0.419 (0.917) C:62% T:83%	pCi/L	10/07/21 14:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.349 ± 0.574 (1.24)	pCi/L	10/20/21 17:19	7440-14-4	

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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
Sample: BRGWA-6S Lab ID: 92562849005 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	0.943 ± 0.340 (0.300) C:104% T:NA	pCi/L	10/08/21 07:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.0295 ± 0.364 (0.860) C:65% T:82%	pCi/L	10/07/21 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.943 ± 0.704 (1.16)	pCi/L	10/20/21 17:19	7440-14-4	

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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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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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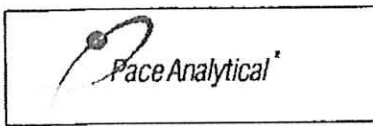
QUALITY CONTROL DATA CROSS REFERENCE TABLE

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:

GA POWER

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:	<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.

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)		
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.

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

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	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
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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: 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	YCS62912
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	YCS62912
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

UAM 10/20/21

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UAM 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)?	Y	
	LCS62922	LCS062922
Count Date:	10/7/2021	10/7/2021
Spike I.D.:	21-029	37-936
Decay Corrected Spike Concentration (pCi/mL):	0.10	0.10
Volume Used (mL):	0.810	0.810
Aliquot Volume (L, g, F):	4.684	4.683
Target Conc. (pCi/L, g, F):	0.229	0.229
Uncertainty (Calculated):	4.993	5.479
Result (pCi/L, g, F):	1.158	1.201
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.51	1.27
Numerical Performance Indicator:	106.61%	116.98%
Percent Recovery:	N/A	N/A
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	135%	135%
Upper % Recovery Limits:	60%	60%
Lower % Recovery Limits:		

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:

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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-BCDE BACKGROUND
Pace Project No.: 92562860

Dear Joju Abraham:

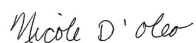
Enclosed are the analytical results for sample(s) received by the laboratory between September 22, 2021 and September 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where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

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

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

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					
92562860001	BRGWA-5S					
	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	
92562860002	BRGWA-5I					
	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	
92562860003	BRGWA-2S					
	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	
92562860004	BRGWA-2I					
	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	

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					
92562860005	BRGWA-6S					
	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	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

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

Sample: BRGWA-5S		Lab ID: 92562860001		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
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 09:42		
pH	6.36	Std. Units			1		09/23/21 09:42		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	19.1	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 17:58	7440-70-2	
6020 MET ICPMS									
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	0.038	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	0.0044J	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	
7470 Mercury									
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 12:38	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	104	mg/L	10.0	10.0	1		09/27/21 10:20		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.2	mg/L	1.0	0.60	1		09/24/21 19:35	16887-00-6	
Fluoride	0.056J	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
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 09:43		
pH	6.32	Std. Units			1		09/23/21 09:43		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	14.1	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 18:32	7440-70-2	
6020 MET ICPMS									
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	0.025	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	0.0064	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 19:46	7440-47-3	
Cobalt	0.00071J	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	0.0012J	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 19:46	7439-93-2	
Molybdenum	0.0020J	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	
7470 Mercury									
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 12:41	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	108	mg/L	10.0	10.0	1		09/27/21 10:20		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.2	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	2.3	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: BRGWA-2S		Lab ID: 92562860003		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
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:03		
pH	6.06	Std. Units			1		09/23/21 13:03		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	4.3	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 18:51	7440-70-2	
6020 MET ICPMS									
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	0.0097	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	0.0091	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	
7470 Mercury									
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 12:56	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	66.0	mg/L	10.0	10.0	1		09/28/21 10:57		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.5	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
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:03		
pH	6.78	Std. Units			1		09/23/21 13:03		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	15.9	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 18:56	7440-70-2	
6020 MET ICPMS									
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	0.0075	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	0.0015J	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	0.021J	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:04	7439-93-2	
Molybdenum	0.0012J	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	
7470 Mercury									
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 12:59	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	129	mg/L	10.0	10.0	1		09/28/21 10:57		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.7	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	5.2	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: BRGWA-6S Lab ID: 92562860005 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
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:03		
pH	6.48	Std. Units			1		09/23/21 13:03		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	4.1	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:01	7440-70-2	
6020 MET ICPMS									
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	0.014	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	0.014	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:09	7440-47-3	
Cobalt	0.00078J	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	0.0035J	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	
7470 Mercury									
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 13:01	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	62.0	mg/L	10.0	10.0	1		09/28/21 10:57		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.1	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	

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

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

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QUALITY CONTROL DATA

Project: 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	0.0025	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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REPORT OF LABORATORY ANALYSIS

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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

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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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO# : 92562860

Courier: Commercial Fed Ex Pace UPS USPS Client Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other

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

Cooler Temp: 1.8 Correction Factor: Add/Subtract (°C) 0.0

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

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

Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C

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

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)		
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.

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

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	/	/	/
2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
3	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
4	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
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.

November 02, 2021

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

RE: Project: BRANCH AP-E RADS
Pace Project No.: 92562947

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on 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-E RADS
Pace Project No.: 92562947

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: BRANCH AP-E RADS
Pace Project No.: 92562947

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92562947001	BRGWC-17S	Water	09/22/21 12:09	09/23/21 10:47
92562947002	BRGWC-33S	Water	09/22/21 15:10	09/23/21 10:47
92562947003	BRGWC-34S	Water	09/22/21 17:20	09/23/21 10:47
92562947004	BRGWC-36S	Water	09/22/21 10:09	09/23/21 10:47
92562947005	EB-1	Water	09/22/21 17:00	09/23/21 10:47
92562947006	FB-1	Water	09/22/21 15:30	09/23/21 10:47
92562947007	BRGWC-35S	Water	09/23/21 10:05	09/23/21 17:10
92562947008	BRGWC-37S	Water	09/23/21 12:40	09/23/21 17:10
92562947009	BRGWC-38S	Water	09/23/21 11:20	09/23/21 17:10
92562947010	DUP-1	Water	09/23/21 00:00	09/23/21 17:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: BRANCH AP-E RADS
Pace Project No.: 92562947

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92562947001	BRGWC-17S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947002	BRGWC-33S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947003	BRGWC-34S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947004	BRGWC-36S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947005	EB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947006	FB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947007	BRGWC-35S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947008	BRGWC-37S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947009	BRGWC-38S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92562947010	DUP-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	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-E RADS
Pace Project No.: 92562947

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92562947001	BRGWC-17S					
EPA 9315	Radium-226	0.0152 ± 0.172 (0.456) C:97% T:NA	pCi/L		10/27/21 08:50	
EPA 9320	Radium-228	0.719 ± 0.584 (1.18) C:66% T:78%	pCi/L		10/13/21 14:12	
Total Radium Calculation	Total Radium	0.734 ± 0.756 (1.64)	pCi/L		10/28/21 17:14	
92562947002	BRGWC-33S					
EPA 9315	Radium-226	-0.00291 ± 0.168 (0.463) C:98% T:NA	pCi/L		10/27/21 08:50	
EPA 9320	Radium-228	0.382 ± 0.423 (0.884) C:65% T:77%	pCi/L		10/18/21 11:42	
Total Radium Calculation	Total Radium	0.382 ± 0.591 (1.35)	pCi/L		10/28/21 17:14	
92562947003	BRGWC-34S					
EPA 9315	Radium-226	0.0669 ± 0.191 (0.464) C:97% T:NA	pCi/L		10/27/21 08:50	
EPA 9320	Radium-228	0.843 ± 0.474 (0.867) C:68% T:85%	pCi/L		10/13/21 14:12	
Total Radium Calculation	Total Radium	0.910 ± 0.665 (1.33)	pCi/L		10/28/21 17:14	
92562947004	BRGWC-36S					
EPA 9315	Radium-226	0.481 ± 0.333 (0.614) C:97% T:NA	pCi/L		10/27/21 08:55	
EPA 9320	Radium-228	0.327 ± 0.403 (0.852) C:69% T:76%	pCi/L		10/13/21 14:12	
Total Radium Calculation	Total Radium	0.808 ± 0.736 (1.47)	pCi/L		10/28/21 17:14	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: BRANCH AP-E RADS
Pace Project No.: 92562947

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92562947005	EB-1					
EPA 9315	Radium-226	-0.0902 ± 0.174 (0.522) C:98% T:NA	pCi/L		10/27/21 08:55	
EPA 9320	Radium-228	1.24 ± 0.525 (0.853) C:69% T:84%	pCi/L		10/13/21 14:12	
Total Radium Calculation	Total Radium	1.24 ± 0.699 (1.38)	pCi/L		10/28/21 17:14	
92562947006	FB-1					
EPA 9315	Radium-226	0.0729 ± 0.155 (0.363) C:98% T:NA	pCi/L		10/27/21 08:59	
EPA 9320	Radium-228	0.108 ± 0.416 (0.938) C:69% T:90%	pCi/L		10/13/21 14:12	
Total Radium Calculation	Total Radium	0.181 ± 0.571 (1.30)	pCi/L		10/28/21 17:14	
92562947007	BRGWC-35S					
EPA 9315	Radium-226	0.233 ± 0.209 (0.381) C:95% T:NA	pCi/L		10/27/21 08:59	
EPA 9320	Radium-228	0.161 ± 0.327 (0.722) C:75% T:87%	pCi/L		10/13/21 11:10	
Total Radium Calculation	Total Radium	0.394 ± 0.536 (1.10)	pCi/L		10/28/21 17:14	
92562947008	BRGWC-37S					
EPA 9315	Radium-226	0.0780 ± 0.170 (0.400) C:96% T:NA	pCi/L		10/27/21 08:59	
EPA 9320	Radium-228	-0.907 ± 0.249 (0.721) C:77% T:86%	pCi/L		10/13/21 11:10	
Total Radium Calculation	Total Radium	0.0780 ± 0.419 (1.12)	pCi/L		10/28/21 17:14	

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SUMMARY OF DETECTION

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92562947009	BRGWC-38S					
EPA 9315	Radium-226	0.143 ± 0.190 (0.399)	pCi/L		10/27/21 08:59	
EPA 9320	Radium-228	C:98% T:NA 1.26 ± 0.471 (0.701)	pCi/L		10/13/21 11:10	
Total Radium Calculation	Total Radium	C:78% T:85% 1.40 ± 0.661 (1.10)	pCi/L		10/28/21 17:14	
92562947010	DUP-1					
EPA 9315	Radium-226	0.0943 ± 0.167 (0.378)	pCi/L		10/27/21 08:59	
EPA 9320	Radium-228	C:97% T:NA 0.540 ± 0.370 (0.705)	pCi/L		10/13/21 11:10	
Total Radium Calculation	Total Radium	C:76% T:82% 0.634 ± 0.537 (1.08)	pCi/L		10/28/21 17:14	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BRGWC-17S Lab ID: 92562947001 Collected: 09/22/21 12:09 Received: 09/23/21 10:47 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0152 ± 0.172 (0.456) C:97% T:NA	pCi/L	10/27/21 08:50	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.719 ± 0.584 (1.18) C:66% T:78%	pCi/L	10/13/21 14:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.734 ± 0.756 (1.64)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BRGWC-33S Lab ID: 92562947002 Collected: 09/22/21 15:10 Received: 09/23/21 10:47 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	-0.00291 ± 0.168 (0.463) C:98% T:NA	pCi/L	10/27/21 08:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.382 ± 0.423 (0.884) C:65% T:77%	pCi/L	10/18/21 11:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.382 ± 0.591 (1.35)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: BRGWC-34S **Lab ID: 92562947003** Collected: 09/22/21 17:20 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	0.0669 ± 0.191 (0.464) C:97% T:NA	pCi/L	10/27/21 08:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.843 ± 0.474 (0.867) C:68% T:85%	pCi/L	10/13/21 14:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.910 ± 0.665 (1.33)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: BRGWC-36S **Lab ID: 92562947004** Collected: 09/22/21 10:09 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	0.481 ± 0.333 (0.614) C:97% T:NA	pCi/L	10/27/21 08:55	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.327 ± 0.403 (0.852) C:69% T:76%	pCi/L	10/13/21 14:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.808 ± 0.736 (1.47)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EB-1 Lab ID: 92562947005 Collected: 09/22/21 17:00 Received: 09/23/21 10:47 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	-0.0902 ± 0.174 (0.522) C:98% T:NA	pCi/L	10/27/21 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.24 ± 0.525 (0.853) C:69% T:84%	pCi/L	10/13/21 14:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.24 ± 0.699 (1.38)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: FB-1 **Lab ID: 92562947006** Collected: 09/22/21 15:30 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	0.0729 ± 0.155 (0.363) C:98% T:NA	pCi/L	10/27/21 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.108 ± 0.416 (0.938) C:69% T:90%	pCi/L	10/13/21 14:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.181 ± 0.571 (1.30)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: BRGWC-35S **Lab ID: 92562947007** Collected: 09/23/21 10:05 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	0.233 ± 0.209 (0.381) C:95% T:NA	pCi/L	10/27/21 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.161 ± 0.327 (0.722) C:75% T:87%	pCi/L	10/13/21 11:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.394 ± 0.536 (1.10)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: BRGWC-37S **Lab ID: 92562947008** Collected: 09/23/21 12:40 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	0.0780 ± 0.170 (0.400) C:96% T:NA	pCi/L	10/27/21 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.907 ± 0.249 (0.721) C:77% T:86%	pCi/L	10/13/21 11:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.0780 ± 0.419 (1.12)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: BRGWC-38S **Lab ID: 92562947009** Collected: 09/23/21 11:20 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	0.143 ± 0.190 (0.399) C:98% T:NA	pCi/L	10/27/21 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.26 ± 0.471 (0.701) C:78% T:85%	pCi/L	10/13/21 11:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.40 ± 0.661 (1.10)	pCi/L	10/28/21 17:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

Sample: DUP-1 **Lab ID: 92562947010** Collected: 09/23/21 00:00 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	0.0943 ± 0.167 (0.378) C:97% T:NA	pCi/L	10/27/21 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.540 ± 0.370 (0.705) C:76% T:82%	pCi/L	10/13/21 11:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.634 ± 0.537 (1.08)	pCi/L	10/28/21 17:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

QC Batch: 466416

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92562947001, 92562947002, 92562947003, 92562947004, 92562947005, 92562947006

METHOD BLANK: 2252287

Matrix: Water

Associated Lab Samples: 92562947001, 92562947002, 92562947003, 92562947004, 92562947005, 92562947006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.590 ± 0.393 (0.739) C:68% T:79%	pCi/L	10/13/21 14:18	

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-E RADS

Pace Project No.: 92562947

QC Batch: 466417

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92562947007, 92562947008, 92562947009, 92562947010

METHOD BLANK: 2252288

Matrix: Water

Associated Lab Samples: 92562947007, 92562947008, 92562947009, 92562947010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0448 ± 0.328 (0.776) C:75% T:81%	pCi/L	10/13/21 11:10	

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 - RADIOCHEMISTRY

Project: BRANCH AP-E RADS

Pace Project No.: 92562947

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: 92562947001, 92562947002, 92562947003, 92562947004, 92562947005, 92562947006, 92562947007, 92562947008, 92562947009, 92562947010

METHOD BLANK: 2252388

Matrix: Water

Associated Lab Samples: 92562947001, 92562947002, 92562947003, 92562947004, 92562947005, 92562947006, 92562947007, 92562947008, 92562947009, 92562947010

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-E RADS
Pace Project No.: 92562947

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-E RADS
Pace Project No.: 92562947

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562947001	BRGWC-17S	EPA 9315	466466		
92562947002	BRGWC-33S	EPA 9315	466466		
92562947003	BRGWC-34S	EPA 9315	466466		
92562947004	BRGWC-36S	EPA 9315	466466		
92562947005	EB-1	EPA 9315	466466		
92562947006	FB-1	EPA 9315	466466		
92562947007	BRGWC-35S	EPA 9315	466466		
92562947008	BRGWC-37S	EPA 9315	466466		
92562947009	BRGWC-38S	EPA 9315	466466		
92562947010	DUP-1	EPA 9315	466466		
92562947001	BRGWC-17S	EPA 9320	466416		
92562947002	BRGWC-33S	EPA 9320	466416		
92562947003	BRGWC-34S	EPA 9320	466416		
92562947004	BRGWC-36S	EPA 9320	466416		
92562947005	EB-1	EPA 9320	466416		
92562947006	FB-1	EPA 9320	466416		
92562947007	BRGWC-35S	EPA 9320	466417		
92562947008	BRGWC-37S	EPA 9320	466417		
92562947009	BRGWC-38S	EPA 9320	466417		
92562947010	DUP-1	EPA 9320	466417		
92562947001	BRGWC-17S	Total Radium Calculation	470302		
92562947002	BRGWC-33S	Total Radium Calculation	470302		
92562947003	BRGWC-34S	Total Radium Calculation	470302		
92562947004	BRGWC-36S	Total Radium Calculation	470302		
92562947005	EB-1	Total Radium Calculation	470302		
92562947006	FB-1	Total Radium Calculation	470302		
92562947007	BRGWC-35S	Total Radium Calculation	470302		
92562947008	BRGWC-37S	Total Radium Calculation	470302		
92562947009	BRGWC-38S	Total Radium Calculation	470302		
92562947010	DUP-1	Total Radium Calculation	470302		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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	Document Name: Sample Condition Upon Receipt(SCUR)	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:

GA Power

Project #:

WO# : 92562947

Courier: Commercial Fed Ex UPS USPS Other: Client



92562947

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *MS 9/23/2*

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)?

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: <i>WT</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: _____

*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# : 92562947

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-)	WG9U-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																													
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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.

Page: 1 Of 1

Section A	Required Client Information:	Section B	Required Project Information:	Section C	Invoice Information:
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Jou Abraham	Attention:	scmnodes@southarmco.com
Address:	1130 Hilltopville Rd Milledgeville GA 31061	Copy To:	Golden	Company Name:	
Email:	jabraham@southarmco.com	Purchase Order #:		Address:	
Phone:	(404) 506-7239	Project Name:	Plant Branch A-P-E	Pace Quide:	
Fax:		Requested Due Date:	10 Day TAT	Pace Project Manager:	Kevin Heming
		Project #:	166525421	Pace Profile #:	
				Requested Analytic Filtered (Y/N)	
				State / Location:	GA
				Regulatory Agency:	

ITEM #	MATRIX	CODE	MATRIX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Residual Chlorine (Y/N)	pH	
									Unpreserved - Ice	H2SO4	HNO3 + Ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol				Other
1	BRGWC-17S	WT	G	G	9/22/2021	12:09		5											pH = 6.22
2	BRGWC-33S	WT	G	G	9/22/2021	15:10		5											pH = 4.81
3	BRGWC-34S	WT	G	G	9/22/2021	17:20		5											pH = 5.93
4	BRGWC-36S	WT	G	G	9/22/2021	10:09		5											pH = 5.53
5	EB-1	WT	G	G	9/22/2021	17:00		5											pH = NA
6	FB-1	WT	G	G	9/22/2021	15:30		5	2										pH = NA
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Jou Abraham	9-23-21	08:50	Kevin Heming	9/23	10:47	TEMP in C: 2.8 Received on Ice (Y/N): Y Quatary Sealed Cooler (Y/N): N Samples Intact (Y/N): X

Jude Wagnerspeck / JAW . . . DATE Signed 9-23-21



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:

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: 9/23/2020

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: THR230 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 2.4 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): 2.5

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.	<u>10 Day TAT</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>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)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		✓	✓			✓	✓																	✓					
2		✓	✓			✓	✓																		✓				
3		✓	✓			✓	✓																		✓				
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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).

Quality Control Sample Performance Assessment



Test: Ra-228
 Analyst: VAL
 Date: 10/11/2021
 Worklist: 62925
 Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2252287
MB concentration:	0.590
M/B 2 Sigma CSU:	0.393
MB MDC:	0.739
MB Numerical Performance Indicator:	2.94
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS62925	LCS062925
Count Date:	10/13/2021	10/13/2021
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	37.860	37.860
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.807	0.815
Target Conc. (pCi/L, g, F):	4.891	4.644
Uncertainty (Calculated):	0.230	0.228
Result (pCi/L, g, F):	5.395	5.523
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.215	1.229
Numerical Performance Indicator:	1.11	1.38
Percent Recovery:	115.00%	118.93%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

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 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): 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:		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:	LCS62925 LCS062925 5.395 1.215 5.523 1.229 NO -0.145 3.36% Pass Pass 36%

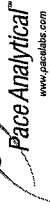
Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate Numerical 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:

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

Comments:

Handwritten signature and date: VAL 10/15/21

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JC2
Date: 10/11/2021
Worklist: 62926
Matrix: WT

Method Blank Assessment

MB Sample ID: 2252288
MB concentration: -0.045
MB 2 Sigma CSU: 0.328
MB MDC: 0.776

MB Numerical Performance Indicator: -0.27
MB Status vs Numerical Indicator: Pass
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
		LCS62926	LCSDB2926
Count Date:	10/13/2021		10/13/2021
Spike I.D.:	21-029		21-029
Decay Corrected Spike Concentration (pCi/mL):	37.861		37.861
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.818		0.809
Target Conc. (pCi/L, g, F):	4.627		4.682
Uncertainty (Calculated):	0.229		0.229
Result (pCi/L, g, F):	5.361		4.781
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.166		1.064
Numerical Performance Indicator:	1.21		0.18
Percent Recovery:	115.87%		102.12%
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		LCSD (Y or N)?	Y
		LCS62926	LCSDB2926
Sample I.D.:	LCS62926		LCSDB2926
Duplicate Sample I.D.:	LCSDB2926		LCSDB2926
Sample Result (pCi/L, g, F):	5.361		5.361
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.166		1.166
Sample Duplicate Result (pCi/L, g, F):	4.781		4.781
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.064		1.064
Are sample and/or duplicate results below RL?	NO		NO
Duplicate Numerical Performance Indicator:	0.720		0.720
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.62%		12.62%
Duplicate Status vs Numerical Indicator:	Pass		Pass
Duplicate Status vs RPD:	Pass		Pass
% RPD Limit:	36%		36%

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

Comments:

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Analyst Must Manually Enter All Fields Highlighted in Yellow.

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

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

OK for print

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

October 22, 2021

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

RE: Project: BRANCH AP-E
Pace Project No.: 92562974

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on 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-E

Pace Project No.: 92562974

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

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: BRANCH AP-E
Pace Project No.: 92562974

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92562974001	BRGWC-17S	Water	09/22/21 12:09	09/23/21 10:47
92562974002	BRGWC-33S	Water	09/22/21 15:10	09/23/21 10:47
92562974003	BRGWC-34S	Water	09/22/21 17:20	09/23/21 10:47
92562974004	BRGWC-36S	Water	09/22/21 10:09	09/23/21 10:47
92562974005	EB-1	Water	09/22/21 17:00	09/23/21 10:47
92562974006	FB-1	Water	09/22/21 15:30	09/23/21 10:47
92562974007	BRGWC-35S	Water	09/23/21 10:05	09/23/21 17:10
92562974008	BRGWC-37S	Water	09/23/21 12:40	09/23/21 17:10
92562974009	BRGWC-38S	Water	09/23/21 11:20	09/23/21 17:10
92562974010	DUP-1	Water	09/23/21 00:00	09/23/21 17:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: BRANCH AP-E
Pace Project No.: 92562974

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92562974001	BRGWC-17S	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
92562974002	BRGWC-33S	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
92562974003	BRGWC-34S	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
92562974004	BRGWC-36S	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
92562974005	EB-1	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
92562974006	FB-1	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
92562974007	BRGWC-35S	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
92562974008	BRGWC-37S	EPA 6010D	KH	1
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: BRANCH AP-E
Pace Project No.: 92562974

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92562974009	BRGWC-38S	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
92562974010	DUP-1	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-E

Pace Project No.: 92562974

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92562974001	BRGWC-17S					
	Performed by	CUSTOME			09/23/21 13:09	
		R				
	pH	6.22	Std. Units		09/23/21 13:09	
EPA 6010D	Calcium	36.4	mg/L	1.0	10/01/21 19:05	
EPA 6020B	Barium	0.043	mg/L	0.0050	10/01/21 15:00	
EPA 6020B	Boron	0.020J	mg/L	0.040	09/30/21 20:15	
EPA 6020B	Chromium	0.0091	mg/L	0.0050	09/30/21 20:15	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	09/30/21 20:15	
EPA 6020B	Selenium	0.0015J	mg/L	0.0050	09/30/21 20:15	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:04	B
SM 2540C-2011	Total Dissolved Solids	323	mg/L	10.0	09/28/21 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	4.6	mg/L	1.0	09/24/21 21:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/24/21 21:42	
EPA 300.0 Rev 2.1 1993	Sulfate	123	mg/L	3.0	09/25/21 04:53	
92562974002	BRGWC-33S					
	Performed by	CUSTOME			09/23/21 13:09	
		R				
	pH	4.81	Std. Units		09/23/21 13:09	
EPA 6010D	Calcium	28.9	mg/L	1.0	10/01/21 19:10	
EPA 6020B	Barium	0.019	mg/L	0.0050	10/01/21 15:06	
EPA 6020B	Beryllium	0.0012	mg/L	0.00050	09/30/21 20:21	
EPA 6020B	Boron	1.1	mg/L	0.040	09/30/21 20:21	
EPA 6020B	Cadmium	0.00019J	mg/L	0.00050	09/30/21 20:21	
EPA 6020B	Cobalt	0.024	mg/L	0.0050	09/30/21 20:21	
EPA 6020B	Lithium	0.0080J	mg/L	0.030	09/30/21 20:21	
EPA 7470A	Mercury	0.00012J	mg/L	0.00020	10/06/21 13:07	B
SM 2540C-2011	Total Dissolved Solids	190	mg/L	10.0	09/28/21 10:57	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	09/24/21 21:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.068J	mg/L	0.10	09/24/21 21:58	
EPA 300.0 Rev 2.1 1993	Sulfate	94.6	mg/L	2.0	09/25/21 05:08	
92562974003	BRGWC-34S					
	Performed by	CUSTOME			09/23/21 13:09	
		R				
	pH	5.93	Std. Units		09/23/21 13:09	
EPA 6010D	Calcium	76.9	mg/L	1.0	10/01/21 19:24	
EPA 6020B	Barium	0.021	mg/L	0.0050	10/01/21 15:44	
EPA 6020B	Beryllium	0.00015J	mg/L	0.00050	09/30/21 20:26	
EPA 6020B	Boron	2.2	mg/L	0.040	09/30/21 20:26	
EPA 6020B	Cadmium	0.00033J	mg/L	0.00050	09/30/21 20:26	
EPA 6020B	Cobalt	0.0075	mg/L	0.0050	09/30/21 20:26	
EPA 7470A	Mercury	0.00015J	mg/L	0.00020	10/06/21 13:09	B
SM 2540C-2011	Total Dissolved Solids	406	mg/L	10.0	09/29/21 18:44	
EPA 300.0 Rev 2.1 1993	Chloride	5.6	mg/L	1.0	09/24/21 22:46	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/24/21 22:46	
EPA 300.0 Rev 2.1 1993	Sulfate	232	mg/L	5.0	09/25/21 06:27	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: BRANCH AP-E

Pace Project No.: 92562974

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92562974004	BRGWC-36S					
	Performed by	CUSTOME			09/23/21 13:09	
		R				
	pH	5.53	Std. Units		09/23/21 13:09	
EPA 6010D	Calcium	53.7	mg/L	1.0	10/01/21 19:29	
EPA 6020B	Barium	0.028	mg/L	0.0050	09/30/21 20:44	
EPA 6020B	Beryllium	0.000084J	mg/L	0.00050	09/30/21 20:44	
EPA 6020B	Boron	1.1	mg/L	0.040	09/30/21 20:44	
EPA 6020B	Chromium	0.0065	mg/L	0.0050	09/30/21 20:44	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	09/30/21 20:44	
EPA 6020B	Selenium	0.0032J	mg/L	0.0050	09/30/21 20:44	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:12	B
SM 2540C-2011	Total Dissolved Solids	457	mg/L	10.0	09/29/21 18:44	
EPA 300.0 Rev 2.1 1993	Chloride	7.1	mg/L	1.0	09/24/21 23:02	
EPA 300.0 Rev 2.1 1993	Fluoride	0.054J	mg/L	0.10	09/24/21 23:02	
EPA 300.0 Rev 2.1 1993	Sulfate	234	mg/L	5.0	09/25/21 06:43	
92562974005	EB-1					
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:15	B
92562974006	FB-1					
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:22	B
92562974007	BRGWC-35S					
	Performed by	CUSTOME			09/24/21 09:54	
		R				
	pH	6.08	Std. Units		09/24/21 09:54	
EPA 6010D	Calcium	70.5	mg/L	1.0	10/01/21 19:44	
EPA 6020B	Barium	0.036	mg/L	0.0050	09/30/21 21:01	
EPA 6020B	Beryllium	0.00016J	mg/L	0.00050	09/30/21 21:01	
EPA 6020B	Boron	2.0	mg/L	0.040	09/30/21 21:01	
EPA 6020B	Chromium	0.0065	mg/L	0.0050	09/30/21 21:01	
EPA 6020B	Lithium	0.0022J	mg/L	0.030	09/30/21 21:01	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 13:25	B
SM 2540C-2011	Total Dissolved Solids	511	mg/L	10.0	09/29/21 19:08	
EPA 300.0 Rev 2.1 1993	Chloride	6.1	mg/L	1.0	09/27/21 05:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.073J	mg/L	0.10	09/27/21 05:34	
EPA 300.0 Rev 2.1 1993	Sulfate	258	mg/L	6.0	09/27/21 14:18	
92562974008	BRGWC-37S					
	Performed by	CUSTOME			09/24/21 09:54	
		R				
	pH	5.85	Std. Units		09/24/21 09:54	
EPA 6010D	Calcium	3.7	mg/L	1.0	10/01/21 19:48	
EPA 6020B	Barium	0.027	mg/L	0.0050	09/30/21 21:07	
EPA 6020B	Chromium	0.0016J	mg/L	0.0050	09/30/21 21:07	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 13:28	B
SM 2540C-2011	Total Dissolved Solids	49.0	mg/L	10.0	09/29/21 19:08	
EPA 300.0 Rev 2.1 1993	Chloride	1.9	mg/L	1.0	09/27/21 05:49	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: BRANCH AP-E

Pace Project No.: 92562974

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92562974009	BRGWC-38S					
	Performed by	CUSTOMER			09/24/21 09:55	
	pH	4.05	Std. Units		09/24/21 09:55	
EPA 6010D	Calcium	36.8	mg/L	1.0	10/01/21 19:53	
EPA 6020B	Arsenic	0.0020J	mg/L	0.0050	10/01/21 17:16	
EPA 6020B	Barium	0.014	mg/L	0.0050	10/01/21 17:16	
EPA 6020B	Beryllium	0.0071	mg/L	0.00050	10/01/21 17:16	
EPA 6020B	Boron	1.4	mg/L	0.040	10/01/21 17:16	
EPA 6020B	Cadmium	0.00048J	mg/L	0.00050	10/01/21 17:16	
EPA 6020B	Chromium	0.0040J	mg/L	0.0050	10/01/21 17:16	
EPA 6020B	Cobalt	0.17	mg/L	0.0050	10/01/21 17:16	
EPA 6020B	Lithium	0.019J	mg/L	0.030	10/01/21 17:16	
EPA 6020B	Selenium	0.031	mg/L	0.0050	10/01/21 17:16	
EPA 6020B	Thallium	0.00022J	mg/L	0.0010	10/01/21 17:16	
EPA 7470A	Mercury	0.00022	mg/L	0.00020	10/06/21 13:30	B
SM 2540C-2011	Total Dissolved Solids	528	mg/L	20.0	09/29/21 19:08	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	09/27/21 06:04	
EPA 300.0 Rev 2.1 1993	Fluoride	0.85	mg/L	0.10	09/27/21 06:04	
EPA 300.0 Rev 2.1 1993	Sulfate	318	mg/L	7.0	09/27/21 14:32	
92562974010	DUP-1					
EPA 6010D	Calcium	67.9	mg/L	1.0	10/01/21 19:58	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	10/01/21 17:39	
EPA 6020B	Barium	0.036	mg/L	0.0050	10/01/21 17:39	
EPA 6020B	Beryllium	0.00013J	mg/L	0.00050	10/01/21 17:39	
EPA 6020B	Boron	1.9	mg/L	0.040	10/01/21 17:39	
EPA 6020B	Chromium	0.0057	mg/L	0.0050	10/01/21 17:39	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	10/01/21 17:39	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 13:33	B
SM 2540C-2011	Total Dissolved Solids	514	mg/L	10.0	09/29/21 19:08	
EPA 300.0 Rev 2.1 1993	Chloride	6.1	mg/L	1.0	09/27/21 06:49	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.10	09/27/21 06:49	M1
EPA 300.0 Rev 2.1 1993	Sulfate	258	mg/L	6.0	09/27/21 14:47	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-17S **Lab ID: 92562974001** Collected: 09/22/21 12:09 Received: 09/23/21 10:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:09		
pH	6.22	Std. Units			1		09/23/21 13:09		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	36.4	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:05	7440-70-2	
6020 MET ICPMS									
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 20:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:15	7440-38-2	
Barium	0.043	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 15:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:15	7440-41-7	
Boron	0.020J	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:15	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:15	7440-43-9	
Chromium	0.0091	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:15	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:15	7439-98-7	
Selenium	0.0015J	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:15	7440-28-0	
7470 Mercury									
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 13:04	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	323	mg/L	10.0	10.0	1		09/28/21 10:57		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.6	mg/L	1.0	0.60	1		09/24/21 21:42	16887-00-6	
Fluoride	0.10	mg/L	0.10	0.050	1		09/24/21 21:42	16984-48-8	
Sulfate	123	mg/L	3.0	1.5	3		09/25/21 04:53	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-33S		Lab ID: 92562974002		Collected: 09/22/21 15:10		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:09		
pH	4.81	Std. Units			1		09/23/21 13:09		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	28.9	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:10	7440-70-2	
6020 MET ICPMS									
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 20:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:21	7440-38-2	
Barium	0.019	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 15:06	7440-39-3	
Beryllium	0.0012	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:21	7440-41-7	
Boron	1.1	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:21	7440-42-8	
Cadmium	0.00019J	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:21	7440-47-3	
Cobalt	0.024	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:21	7439-92-1	
Lithium	0.0080J	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:21	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00012J	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:07	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	190	mg/L	10.0	10.0	1		09/28/21 10:57		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.7	mg/L	1.0	0.60	1		09/24/21 21:58	16887-00-6	
Fluoride	0.068J	mg/L	0.10	0.050	1		09/24/21 21:58	16984-48-8	
Sulfate	94.6	mg/L	2.0	1.0	2		09/25/21 05:08	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-34S Lab ID: 92562974003 Collected: 09/22/21 17:20 Received: 09/23/21 10:47 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:09		
pH	5.93	Std. Units			1		09/23/21 13:09		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	76.9	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:24	7440-70-2	
6020 MET ICPMS									
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 20:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:26	7440-38-2	
Barium	0.021	mg/L	0.0050	0.00067	1	09/30/21 10:25	10/01/21 15:44	7440-39-3	
Beryllium	0.00015J	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:26	7440-41-7	
Boron	2.2	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:26	7440-42-8	
Cadmium	0.00033J	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:26	7440-47-3	
Cobalt	0.0075	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	10/01/21 15:44	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	10/01/21 15:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00015J	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:09	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	406	mg/L	10.0	10.0	1		09/29/21 18:44		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.6	mg/L	1.0	0.60	1		09/24/21 22:46	16887-00-6	
Fluoride	0.10	mg/L	0.10	0.050	1		09/24/21 22:46	16984-48-8	
Sulfate	232	mg/L	5.0	2.5	5		09/25/21 06:27	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-36S		Lab ID: 92562974004		Collected: 09/22/21 10:09		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/23/21 13:09		
pH	5.53	Std. Units			1		09/23/21 13:09		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	53.7	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:29	7440-70-2	
6020 MET ICPMS									
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 20:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:44	7440-38-2	
Barium	0.028	mg/L	0.0050	0.00067	1	09/30/21 10:25	09/30/21 20:44	7440-39-3	
Beryllium	0.000084J	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:44	7440-41-7	
Boron	1.1	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:44	7440-43-9	
Chromium	0.0065	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:44	7439-92-1	
Lithium	0.0026J	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:44	7439-98-7	
Selenium	0.0032J	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:44	7440-28-0	
7470 Mercury									
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 13:12	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	457	mg/L	10.0	10.0	1		09/29/21 18:44		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.1	mg/L	1.0	0.60	1		09/24/21 23:02	16887-00-6	
Fluoride	0.054J	mg/L	0.10	0.050	1		09/24/21 23:02	16984-48-8	
Sulfate	234	mg/L	5.0	2.5	5		09/25/21 06:43	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: EB-1		Lab ID: 92562974005		Collected: 09/22/21 17:00		Received: 09/23/21 10:47		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:34	7440-70-2	
6020 MET ICPMS									
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 20:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:49	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	09/30/21 10:25	09/30/21 20:49	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:49	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:49	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:49	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:49	7440-28-0	
7470 Mercury									
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 13:15	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/29/21 18:44		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		09/24/21 23:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/21 23:50	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/24/21 23:50	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: FB-1		Lab ID: 92562974006		Collected: 09/22/21 15:30	Received: 09/23/21 10:47	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:39	7440-70-2		
6020 MET ICPMS		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 20:55	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:55	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	09/30/21 10:25	09/30/21 20:55	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 20:55	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 20:55	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 20:55	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 20:55	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 20:55	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 20:55	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 20:55	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 20:55	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 20:55	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 20:55	7440-28-0		
7470 Mercury		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 13:22	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/29/21 18:44			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/25/21 00:06	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/25/21 00:06	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/25/21 00:06	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-35S Lab ID: 92562974007 Collected: 09/23/21 10:05 Received: 09/23/21 17:10 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/24/21 09:54		
pH	6.08	Std. Units			1		09/24/21 09:54		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	70.5	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:44	7440-70-2	
6020 MET ICPMS									
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 21:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 21:01	7440-38-2	
Barium	0.036	mg/L	0.0050	0.00067	1	09/30/21 10:25	09/30/21 21:01	7440-39-3	
Beryllium	0.00016J	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 21:01	7440-41-7	
Boron	2.0	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 21:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 21:01	7440-43-9	
Chromium	0.0065	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 21:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 21:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 21:01	7439-92-1	
Lithium	0.0022J	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 21:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 21:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 21:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 21:01	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00011J	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:25	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	511	mg/L	10.0	10.0	1		09/29/21 19:08		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.1	mg/L	1.0	0.60	1		09/27/21 05:34	16887-00-6	
Fluoride	0.073J	mg/L	0.10	0.050	1		09/27/21 05:34	16984-48-8	
Sulfate	258	mg/L	6.0	3.0	6		09/27/21 14:18	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-37S Lab ID: 92562974008 Collected: 09/23/21 12:40 Received: 09/23/21 17:10 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/24/21 09:54		
pH	5.85	Std. Units			1		09/24/21 09:54		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	3.7	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:48	7440-70-2	
6020 MET ICPMS									
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 21:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 21:07	7440-38-2	
Barium	0.027	mg/L	0.0050	0.00067	1	09/30/21 10:25	09/30/21 21:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/30/21 10:25	09/30/21 21:07	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/30/21 10:25	09/30/21 21:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/30/21 10:25	09/30/21 21:07	7440-43-9	
Chromium	0.0016J	mg/L	0.0050	0.0011	1	09/30/21 10:25	09/30/21 21:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/30/21 10:25	09/30/21 21:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/30/21 10:25	09/30/21 21:07	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/30/21 10:25	09/30/21 21:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/30/21 10:25	09/30/21 21:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/30/21 10:25	09/30/21 21:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/30/21 10:25	09/30/21 21:07	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00011J	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:28	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	49.0	mg/L	10.0	10.0	1		09/29/21 19:08		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		09/27/21 05:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 05:49	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 05:49	14808-79-8	

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: BRGWC-38S		Lab ID: 92562974009		Collected: 09/23/21 11:20		Received: 09/23/21 17:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	CUSTOMER				1		09/24/21 09:55		
pH	4.05	Std. Units			1		09/24/21 09:55		
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	36.8	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:53	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 17:16	7440-36-0	
Arsenic	0.0020J	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:16	7440-38-2	
Barium	0.014	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 17:16	7440-39-3	
Beryllium	0.0071	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 17:16	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 17:16	7440-42-8	
Cadmium	0.00048J	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 17:16	7440-43-9	
Chromium	0.0040J	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:16	7440-47-3	
Cobalt	0.17	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 17:16	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 17:16	7439-92-1	
Lithium	0.019J	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 17:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 17:16	7439-98-7	
Selenium	0.031	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 17:16	7782-49-2	
Thallium	0.00022J	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 17:16	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00022	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:30	7439-97-6	B
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	528	mg/L	20.0	20.0	1		09/29/21 19:08		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.0	mg/L	1.0	0.60	1		09/27/21 06:04	16887-00-6	
Fluoride	0.85	mg/L	0.10	0.050	1		09/27/21 06:04	16984-48-8	
Sulfate	318	mg/L	7.0	3.5	7		09/27/21 14:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BRANCH AP-E
Pace Project No.: 92562974

Sample: DUP-1		Lab ID: 92562974010		Collected: 09/23/21 00:00	Received: 09/23/21 17:10	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	67.9	mg/L	1.0	0.12	1	10/01/21 13:30	10/01/21 19:58	7440-70-2		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	0.0013J	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 17:39	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:39	7440-38-2		
Barium	0.036	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 17:39	7440-39-3		
Beryllium	0.00013J	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 17:39	7440-41-7		
Boron	1.9	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 17:39	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 17:39	7440-43-9		
Chromium	0.0057	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:39	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 17:39	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 17:39	7439-92-1		
Lithium	0.0020J	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 17:39	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 17:39	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 17:39	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 17:39	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	0.00011J	mg/L	0.00020	0.000078	1	10/06/21 09:30	10/06/21 13:33	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	514	mg/L	10.0	10.0	1		09/29/21 19:08			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	6.1	mg/L	1.0	0.60	1		09/27/21 06:49	16887-00-6		
Fluoride	0.071J	mg/L	0.10	0.050	1		09/27/21 06:49	16984-48-8	M1	
Sulfate	258	mg/L	6.0	3.0	6		09/27/21 14:47	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BRANCH AP-E

Pace Project No.: 92562974

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: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006, 92562974007, 92562974008, 92562974009, 92562974010

METHOD BLANK: 3411275 Matrix: Water

Associated Lab Samples: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006, 92562974007, 92562974008, 92562974009, 92562974010

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	92562860002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
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-E
Pace Project No.: 92562974

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: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006, 92562974007, 92562974008

METHOD BLANK: 3409457 Matrix: Water
Associated Lab Samples: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006, 92562974007, 92562974008

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.	MS Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	108	114	75-125	5	20

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QUALITY CONTROL DATA

Project: BRANCH AP-E

Pace Project No.: 92562974

Parameter	Units	3409459		3409460		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Arsenic	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20		
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-E
Pace Project No.: 92562974

QC Batch: 650361 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92562974009, 92562974010

METHOD BLANK: 3411035 Matrix: Water
Associated Lab Samples: 92562974009, 92562974010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/01/21 17:04	
Arsenic	mg/L	ND	0.0050	0.0011	10/01/21 17:04	
Barium	mg/L	ND	0.0050	0.00067	10/01/21 17:04	
Beryllium	mg/L	ND	0.00050	0.000054	10/01/21 17:04	
Boron	mg/L	ND	0.040	0.0086	10/01/21 17:04	
Cadmium	mg/L	ND	0.00050	0.00011	10/01/21 17:04	
Chromium	mg/L	ND	0.0050	0.0011	10/01/21 17:04	
Cobalt	mg/L	ND	0.0050	0.00039	10/01/21 17:04	
Lead	mg/L	ND	0.0010	0.00089	10/01/21 17:04	
Lithium	mg/L	ND	0.030	0.00073	10/01/21 17:04	
Molybdenum	mg/L	ND	0.010	0.00074	10/01/21 17:04	
Selenium	mg/L	ND	0.0050	0.0014	10/01/21 17:04	
Thallium	mg/L	ND	0.0010	0.00018	10/01/21 17:04	

LABORATORY CONTROL SAMPLE: 3411036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.097	97	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.092	92	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.094	94	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.092	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3411037 3411038

Parameter	Units	92562974009 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	112	113	75-125	1	20	
Arsenic	mg/L	0.0020J	0.1	0.1	0.10	0.10	102	103	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BRANCH AP-E

Pace Project No.: 92562974

Parameter	Units	3411037		3411038		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92562974009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Barium	mg/L	0.014	0.1	0.1	0.12	0.12	105	106	75-125	0	20	
Beryllium	mg/L	0.0071	0.1	0.1	0.099	0.098	92	91	75-125	1	20	
Boron	mg/L	1.4	1	1	2.3	2.4	84	95	75-125	5	20	
Cadmium	mg/L	0.00048J	0.1	0.1	0.10	0.10	103	101	75-125	2	20	
Chromium	mg/L	0.0040J	0.1	0.1	0.11	0.11	101	101	75-125	0	20	
Cobalt	mg/L	0.17	0.1	0.1	0.28	0.27	106	100	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20	
Lithium	mg/L	0.019J	0.1	0.1	0.11	0.11	95	90	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	109	112	75-125	3	20	
Selenium	mg/L	0.031	0.1	0.1	0.13	0.13	103	101	75-125	2	20	
Thallium	mg/L	0.00022J	0.1	0.1	0.089	0.090	89	90	75-125	1	20	

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QUALITY CONTROL DATA

Project: BRANCH AP-E
Pace Project No.: 92562974

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: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006, 92562974007, 92562974008, 92562974009, 92562974010

METHOD BLANK: 3413779 Matrix: Water
Associated Lab Samples: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006, 92562974007, 92562974008, 92562974009, 92562974010

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

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QUALITY CONTROL DATA

Project: BRANCH AP-E
Pace Project No.: 92562974

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: 92562974001, 92562974002

METHOD BLANK: 3406451 Matrix: Water
Associated Lab Samples: 92562974001, 92562974002

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-E

Pace Project No.: 92562974

QC Batch: 649722

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: 92562974003, 92562974004, 92562974005, 92562974006

METHOD BLANK: 3407437

Matrix: Water

Associated Lab Samples: 92562974003, 92562974004, 92562974005, 92562974006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/29/21 18:44	

LABORATORY CONTROL SAMPLE: 3407438

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	90-111	

SAMPLE DUPLICATE: 3407439

Parameter	Units	92562974003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	406	412	1	10	

SAMPLE DUPLICATE: 3407440

Parameter	Units	92563313019 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	51.0	47.0	8	10	

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QUALITY CONTROL DATA

Project: BRANCH AP-E

Pace Project No.: 92562974

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: 92562974007, 92562974008, 92562974009, 92562974010

METHOD BLANK: 3409087 Matrix: Water
Associated Lab Samples: 92562974007, 92562974008, 92562974009, 92562974010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	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	

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QUALITY CONTROL DATA

Project: BRANCH AP-E
Pace Project No.: 92562974

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: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006

METHOD BLANK: 3405091 Matrix: Water
Associated Lab Samples: 92562974001, 92562974002, 92562974003, 92562974004, 92562974005, 92562974006

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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QUALITY CONTROL DATA

Project: BRANCH AP-E
Pace Project No.: 92562974

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: 92562974007, 92562974008, 92562974009

METHOD BLANK: 3406122 Matrix: Water
Associated Lab Samples: 92562974007, 92562974008, 92562974009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/26/21 23:06	
Fluoride	mg/L	ND	0.10	0.050	09/26/21 23:06	
Sulfate	mg/L	ND	1.0	0.50	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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563212001 Result	Spike Conc.	Spike Conc.	Conc.								
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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563212011 Result	Spike Conc.	Spike Conc.	Conc.								
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	

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QUALITY CONTROL DATA

Project: BRANCH AP-E
Pace Project No.: 92562974

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: 92562974010

METHOD BLANK: 3406128 Matrix: Water
Associated Lab Samples: 92562974010

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		3406130		3406131		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec					
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		3406132		3406133		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec					
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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QUALIFIERS

Project: BRANCH AP-E

Pace Project No.: 92562974

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.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-E
Pace Project No.: 92562974

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562974001	BRGWC-17S				
92562974002	BRGWC-33S				
92562974003	BRGWC-34S				
92562974004	BRGWC-36S				
92562974007	BRGWC-35S				
92562974008	BRGWC-37S				
92562974009	BRGWC-38S				
92562974001	BRGWC-17S	EPA 3010A	650399	EPA 6010D	650462
92562974002	BRGWC-33S	EPA 3010A	650399	EPA 6010D	650462
92562974003	BRGWC-34S	EPA 3010A	650399	EPA 6010D	650462
92562974004	BRGWC-36S	EPA 3010A	650399	EPA 6010D	650462
92562974005	EB-1	EPA 3010A	650399	EPA 6010D	650462
92562974006	FB-1	EPA 3010A	650399	EPA 6010D	650462
92562974007	BRGWC-35S	EPA 3010A	650399	EPA 6010D	650462
92562974008	BRGWC-37S	EPA 3010A	650399	EPA 6010D	650462
92562974009	BRGWC-38S	EPA 3010A	650399	EPA 6010D	650462
92562974010	DUP-1	EPA 3010A	650399	EPA 6010D	650462
92562974001	BRGWC-17S	EPA 3005A	650022	EPA 6020B	650181
92562974002	BRGWC-33S	EPA 3005A	650022	EPA 6020B	650181
92562974003	BRGWC-34S	EPA 3005A	650022	EPA 6020B	650181
92562974004	BRGWC-36S	EPA 3005A	650022	EPA 6020B	650181
92562974005	EB-1	EPA 3005A	650022	EPA 6020B	650181
92562974006	FB-1	EPA 3005A	650022	EPA 6020B	650181
92562974007	BRGWC-35S	EPA 3005A	650022	EPA 6020B	650181
92562974008	BRGWC-37S	EPA 3005A	650022	EPA 6020B	650181
92562974009	BRGWC-38S	EPA 3005A	650361	EPA 6020B	650438
92562974010	DUP-1	EPA 3005A	650361	EPA 6020B	650438
92562974001	BRGWC-17S	EPA 7470A	650957	EPA 7470A	651107
92562974002	BRGWC-33S	EPA 7470A	650957	EPA 7470A	651107
92562974003	BRGWC-34S	EPA 7470A	650957	EPA 7470A	651107
92562974004	BRGWC-36S	EPA 7470A	650957	EPA 7470A	651107
92562974005	EB-1	EPA 7470A	650957	EPA 7470A	651107
92562974006	FB-1	EPA 7470A	650957	EPA 7470A	651107
92562974007	BRGWC-35S	EPA 7470A	650957	EPA 7470A	651107
92562974008	BRGWC-37S	EPA 7470A	650957	EPA 7470A	651107
92562974009	BRGWC-38S	EPA 7470A	650957	EPA 7470A	651107
92562974010	DUP-1	EPA 7470A	650957	EPA 7470A	651107
92562974001	BRGWC-17S	SM 2540C-2011	649491		
92562974002	BRGWC-33S	SM 2540C-2011	649491		
92562974003	BRGWC-34S	SM 2540C-2011	649722		
92562974004	BRGWC-36S	SM 2540C-2011	649722		
92562974005	EB-1	SM 2540C-2011	649722		
92562974006	FB-1	SM 2540C-2011	649722		
92562974007	BRGWC-35S	SM 2540C-2011	649984		
92562974008	BRGWC-37S	SM 2540C-2011	649984		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH AP-E
Pace Project No.: 92562974

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92562974009	BRGWC-38S	SM 2540C-2011	649984		
92562974010	DUP-1	SM 2540C-2011	649984		
92562974001	BRGWC-17S	EPA 300.0 Rev 2.1 1993	649204		
92562974002	BRGWC-33S	EPA 300.0 Rev 2.1 1993	649204		
92562974003	BRGWC-34S	EPA 300.0 Rev 2.1 1993	649204		
92562974004	BRGWC-36S	EPA 300.0 Rev 2.1 1993	649204		
92562974005	EB-1	EPA 300.0 Rev 2.1 1993	649204		
92562974006	FB-1	EPA 300.0 Rev 2.1 1993	649204		
92562974007	BRGWC-35S	EPA 300.0 Rev 2.1 1993	649414		
92562974008	BRGWC-37S	EPA 300.0 Rev 2.1 1993	649414		
92562974009	BRGWC-38S	EPA 300.0 Rev 2.1 1993	649414		
92562974010	DUP-1	EPA 300.0 Rev 2.1 1993	649415		

REPORT OF LABORATORY ANALYSIS

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

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92562974



92562974

Courier: Commercial Fed Ex UPS USPS Client Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: mt 9/23/2

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: _____



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#: 92562974

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 (p-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)	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.



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: Section B Required Project Information: Section C Invoice Information: Page: 1 Of 1

Company: Georgia Power - Coal Combustion Residuals
 Address: 1100 Hillsideville Rd
 Marietta, GA 30061
 Phone: (404) 506-7239
 Fax: (404) 506-7239
 Email: jatzaham@southemco.com
 Project Name: Plant Branch Ap-E
 Project #: 166525421
 Requested Due Date: 10 Day TAT
 Attention: scinvoce@southemco.com
 Company Name:
 Address:
 Pace Profile #:
 Pace Project Manager: Kevin Heming
 Regulatory Agency:
 State / Location: GA

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS							Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	pH
						Unpreserved - ice	H2SO4	HNO3 + ice	HCl	NaOH + Zn Acetate	Na2S2O3	Methanol			
1	BRGWC-17S	G	9/22/2021	12:00		5	2	3							pH = 6.22
2	BRGWC-33S	C	9/22/2021	15:10		5	2	3							pH = 4.81
3	BRGWC-34S	G	9/22/2021	17:20		5	2	3							pH = 5.93
4	BRGWC-36S	G	9/22/2021	10:08		5	2	3							pH = 5.53
5	EB-1	G	9/22/2021	17:00		5	2	3							pH = NA
6	FB-1	G	9/22/2021	15:30		5	2	3							pH = NA
7															
8															
9															
10															
11															
12															

ADDITIONAL COMMENTS: RELINQUISHED BY / AFFILIATION: *gpc / sample* DATE: 9-23-21 TIME: 08:50 ACCEPTED BY / AFFILIATION: *Kevin Heming* DATE: 9/23/21 TIME: 10:47

TEMP in C: 2.8
 Received on ice (Y/N): Y
 Custody Sealed Cooler (Y/N): N
 Samples Intact (Y/N): X

DATE Signed: 9-23-21

John Magyespeck / gpc



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:

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: 9/23/2020

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Thermometer: IR Gun ID: THR230 Type of Ice: Wet Blue None

Yes No N/A

Cooler Temp: 2.4 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): 2.5

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. <u>10 Day TAT</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>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)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		✓	✓			✓	✓																		✓				
2		✓	✓			✓	✓																		✓				
3		✓	✓			✓	✓																		✓				
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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.

APPENDIX A

FIELD DATA FORMS

Low-Flow Test Report:

Test Date / Time: 9/22/2021 10:54:04 AM

Project: Plant Branch (25)

Operator Name: E. Rheams

Location Name: BRGWA-2S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 34.60 ft Total Depth: 44.60 ft Initial Depth to Water: 11.01 ft	Pump Type: Dedicited Tubing Type: Polyethylene Pump Intake from TOC: 39 ft Estimated Total Volume Pumped: 6600 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.09 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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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: 9/22/2021 9:31:18 AM

Project: Plant Branch

Operator Name: E. Rheams

Location Name: BRGWA-2I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 54.30 ft Total Depth: 64.30 ft Initial Depth to Water: 11.02 ft	Pump Type: Dedicte Tubing Type: Polyethylene Pump Intake from TOC: 59 ft Estimated Total Volume Pumped: 7200 ml Flow Cell Volume: 90 ml Final Flow Rate: 120 ml/min Final Draw Down: 1.53 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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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: 9/21/2021 12:14:37 PM

Project: Plant Branch

Operator Name: E. Rheams

Location Name: BRGWA-5I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 51.20 ft Total Depth: 61.20 ft Initial Depth to Water: 11.86 ft	Pump Type: Dedicited Tubing Type: Polyethylene Pump Intake from TOC: 56 ft Estimated Total Volume Pumped: 4200 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.25 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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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

Location Name: BRGWA-5S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.0 ft Total Depth: 40.0 ft Initial Depth to Water: 11.95 ft	Pump Type: Dedicited Tubing Type: Polyethylene Pump Intake from TOC: 35 ft Estimated Total Volume Pumped: 20000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.15 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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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

Location Name: BRGWA-6S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 42.9 ft Total Depth: 52.9 ft Initial Depth to Water: 26.2 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 47.9 ft Estimated Total Volume Pumped: 3400 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.85 ft	Instrument Used: Aqua TROLL 400 Serial Number: 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 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: 9/22/2021 11:39:26 AM

Project: Plant Branch

Operator Name: Jude Waguespack

Location Name: BRGWC-17S Well Diameter: 2 in Casing Type: PVC Screen Length: 5.0 ft Top of Screen: 1.15 ft Total Depth: 6.15 ft Initial Depth to Water: 5.21 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 6 ft Estimated Total Volume Pumped: 7500 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0.29 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843593
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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 11:39 AM	00:00	6.28 pH	24.71 °C	440.96 µS/cm	3.24 mg/L	6.87 NTU	93.6 mV	5.21 ft	250.00 ml/min
9/22/2021 11:44 AM	05:00	6.24 pH	22.10 °C	438.94 µS/cm	1.27 mg/L	4.29 NTU	90.0 mV	5.50 ft	250.00 ml/min
9/22/2021 11:49 AM	10:00	6.21 pH	22.11 °C	418.48 µS/cm	1.36 mg/L	8.85 NTU	94.7 mV	5.50 ft	250.00 ml/min
9/22/2021 11:54 AM	15:00	6.21 pH	22.12 °C	411.76 µS/cm	1.41 mg/L	9.90 NTU	94.8 mV	5.50 ft	250.00 ml/min
9/22/2021 11:59 AM	20:00	6.22 pH	22.13 °C	406.53 µS/cm	1.42 mg/L	11.04 NTU	95.4 mV	5.50 ft	250.00 ml/min
9/22/2021 12:04 PM	25:00	6.22 pH	22.22 °C	405.41 µS/cm	1.41 mg/L	7.50 NTU	101.4 mV	5.50 ft	250.00 ml/min
9/22/2021 12:09 PM	30:00	6.22 pH	22.31 °C	407.12 µS/cm	1.47 mg/L	4.57 NTU	98.5 mV	5.50 ft	250.00 ml/min

Samples

Sample ID:	Description:
BRGWC-17S	EB-1

Low-Flow Test Report:

Test Date / Time: 9/22/2021 2:37:46 PM

Project: Plant Branch (6)

Operator Name: Erin D Hondt

Location Name: BRGWC-33S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 21.66 ft Total Depth: 31.66 ft Initial Depth to Water: 11.75 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 26.66 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 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 2:37 PM	00:00	4.74 pH	24.54 °C	265.94 µS/cm	0.67 mg/L	2.85 NTU	117.0 mV	11.75 ft	120.00 ml/min
9/22/2021 2:42 PM	05:00	4.79 pH	23.72 °C	257.28 µS/cm	0.59 mg/L	3.14 NTU	117.6 mV	11.75 ft	120.00 ml/min
9/22/2021 2:47 PM	10:00	4.80 pH	22.40 °C	256.33 µS/cm	0.55 mg/L	3.45 NTU	119.1 mV	11.80 ft	280.00 ml/min
9/22/2021 2:52 PM	15:00	4.81 pH	21.20 °C	258.73 µS/cm	0.23 mg/L	4.65 NTU	120.5 mV	11.80 ft	280.00 ml/min
9/22/2021 2:57 PM	20:00	4.81 pH	20.86 °C	259.38 µS/cm	0.19 mg/L	3.76 NTU	121.2 mV	11.80 ft	280.00 ml/min
9/22/2021 3:02 PM	25:00	4.81 pH	20.75 °C	257.69 µS/cm	0.17 mg/L	3.55 NTU	120.7 mV	11.80 ft	280.00 ml/min

Samples

Sample ID:	Description:
BRGWC-33S	FB-1

Low-Flow Test Report:

Test Date / Time: 9/22/2021 4:01:41 PM

Project: Plant Branch (7)

Operator Name: Erin D Hondt

Location Name: BRGWC-34S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 42.64 ft Total Depth: 52.64 ft Initial Depth to Water: 2.97 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 47.64 ft Estimated Total Volume Pumped: 20192.666 ml Flow Cell Volume: 90 ml Final Flow Rate: 280 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 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 4:01 PM	00:00	5.88 pH	22.31 °C	664.16 µS/cm	2.16 mg/L	2.00 NTU	108.6 mV	2.97 ft	280.00 ml/min
9/22/2021 4:02 PM	01:04	5.88 pH	22.36 °C	596.08 µS/cm	2.07 mg/L	2.00 NTU	108.5 mV	2.97 ft	280.00 ml/min
9/22/2021 4:07 PM	06:04	5.93 pH	22.18 °C	627.56 µS/cm	2.33 mg/L	2.68 NTU	107.8 mV	3.01 ft	280.00 ml/min
9/22/2021 4:12 PM	11:04	5.91 pH	22.14 °C	610.31 µS/cm	1.82 mg/L	2.38 NTU	108.0 mV	3.01 ft	280.00 ml/min
9/22/2021 4:17 PM	16:04	5.92 pH	22.29 °C	604.87 µS/cm	2.06 mg/L	2.01 NTU	107.3 mV	3.01 ft	280.00 ml/min
9/22/2021 4:21 PM	20:11	5.92 pH	22.30 °C	688.47 µS/cm	1.91 mg/L	1.93 NTU	107.1 mV	3.01 ft	280.00 ml/min
9/22/2021 4:23 PM	22:07	5.92 pH	22.27 °C	658.11 µS/cm	1.94 mg/L	1.91 NTU	107.2 mV	3.01 ft	280.00 ml/min
9/22/2021 4:28 PM	27:07	5.92 pH	22.21 °C	609.32 µS/cm	1.93 mg/L	1.88 NTU	107.0 mV	3.01 ft	280.00 ml/min
9/22/2021 4:33 PM	32:07	5.93 pH	22.19 °C	589.21 µS/cm	2.11 mg/L	1.83 NTU	107.2 mV	3.01 ft	280.00 ml/min
9/22/2021 4:38 PM	37:07	5.92 pH	22.03 °C	545.51 µS/cm	2.09 mg/L	1.81 NTU	107.3 mV	3.01 ft	280.00 ml/min
9/22/2021 4:43 PM	42:07	5.92 pH	21.85 °C	579.00 µS/cm	2.27 mg/L	1.78 NTU	108.6 mV	3.01 ft	280.00 ml/min
9/22/2021 4:48 PM	47:07	5.93 pH	21.91 °C	542.90 µS/cm	2.17 mg/L	1.72 NTU	108.7 mV	3.01 ft	280.00 ml/min
9/22/2021 4:53 PM	52:07	5.93 pH	21.93 °C	583.49 µS/cm	2.18 mg/L	1.69 NTU	109.3 mV	3.01 ft	280.00 ml/min
9/22/2021 4:58 PM	57:07	5.92 pH	21.86 °C	477.50 µS/cm	2.08 mg/L	1.78 NTU	110.5 mV	3.01 ft	280.00 ml/min
9/22/2021 5:03 PM	01:02:07	5.93 pH	21.87 °C	587.51 µS/cm	2.26 mg/L	1.88 NTU	111.2 mV	3.01 ft	280.00 ml/min

9/22/2021 5:08 PM	01:07:07	5.93 pH	21.76 °C	584.53 µS/cm	2.14 mg/L	1.90 NTU	112.1 mV	3.01 ft	280.00 ml/min
9/22/2021 5:13 PM	01:12:07	5.93 pH	21.82 °C	603.28 µS/cm	2.15 mg/L	1.48 NTU	113.0 mV	3.01 ft	280.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/23/2021 9:42:31 AM

Project: Plant Branch (8)

Operator Name: Erin D Hondt

Location Name: BRGWC-35S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 25.34 ft Total Depth: 35.34 ft Initial Depth to Water: 1.59 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 30.34 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 360 ml/min Final Draw Down: 0.09 ft	Instrument Used: Aqua TROLL 400 Serial Number: 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	
9/23/2021 9:42 AM	00:00	6.08 pH	18.84 °C	653.15 µS/cm	0.29 mg/L	4.98 NTU	78.5 mV	1.59 ft	360.00 ml/min
9/23/2021 9:47 AM	05:00	6.06 pH	18.93 °C	635.31 µS/cm	0.13 mg/L	2.55 NTU	71.5 mV	1.68 ft	360.00 ml/min
9/23/2021 9:52 AM	10:00	6.07 pH	18.95 °C	633.41 µS/cm	0.11 mg/L	2.85 NTU	71.3 mV	1.68 ft	360.00 ml/min
9/23/2021 9:57 AM	15:00	6.08 pH	18.96 °C	638.51 µS/cm	0.11 mg/L	1.80 NTU	68.9 mV	1.68 ft	360.00 ml/min

Samples

Sample ID:	Description:
BRGWC-35S	DUP-1

Low-Flow Test Report:

Test Date / Time: 9/22/2021 9:54:20 AM

Project: Plant Branch

Operator Name: Jude Waguespack

Location Name: BRGWC-36S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 24.02 ft Total Depth: 34.02 ft Initial Depth to Water: 2.9 ft	Pump Type: Peristaltic Tubing Type: Polyethylene Pump Intake From TOC: 29 ft Estimated Total Volume Pumped: 3750 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0.75 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843593
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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 9:54 AM	00:00	5.54 pH	22.31 °C	557.28 µS/cm	1.95 mg/L		120.6 mV	2.90 ft	250.00 ml/min
9/22/2021 9:59 AM	05:00	5.52 pH	20.74 °C	571.01 µS/cm	1.83 mg/L	3.66 NTU	132.2 mV	3.70 ft	250.00 ml/min
9/22/2021 10:04 AM	10:00	5.53 pH	20.67 °C	568.75 µS/cm	1.78 mg/L	3.29 NTU	122.2 mV	3.65 ft	250.00 ml/min
9/22/2021 10:09 AM	15:00	5.53 pH	20.56 °C	570.33 µS/cm	1.77 mg/L	2.55 NTU	135.8 mV	3.65 ft	250.00 ml/min

Samples

Sample ID:	Description:
BRGWC-36S	

Low-Flow Test Report:

Test Date / Time: 9/23/2021 12:08:54 PM

Project: Plant Branch (10)

Operator Name: Erin D Hondt

Location Name: BRGWC-37S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 58.73 ft Total Depth: 68.73 ft Initial Depth to Water: 51.14 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 63.73 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 120 ml/min Final Draw Down: 0.54 ft	Instrument Used: Aqua TROLL 400 Serial Number: 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	
9/23/2021 12:08 PM	00:00	5.79 pH	22.40 °C	47.96 µS/cm	7.11 mg/L	2.79 NTU	92.6 mV	51.14 ft	120.00 ml/min
9/23/2021 12:13 PM	05:00	5.81 pH	21.74 °C	49.37 µS/cm	7.29 mg/L	0.17 NTU	88.5 mV	51.68 ft	120.00 ml/min
9/23/2021 12:18 PM	10:00	5.84 pH	21.77 °C	49.26 µS/cm	7.32 mg/L	0.77 NTU	91.7 mV	51.68 ft	120.00 ml/min
9/23/2021 12:23 PM	15:00	5.84 pH	21.82 °C	49.57 µS/cm	7.36 mg/L	0.07 NTU	93.8 mV	51.68 ft	120.00 ml/min
9/23/2021 12:28 PM	20:00	5.84 pH	22.28 °C	49.22 µS/cm	7.37 mg/L	0.06 NTU	94.9 mV	51.68 ft	120.00 ml/min
9/23/2021 12:33 PM	25:00	5.85 pH	22.43 °C	49.37 µS/cm	7.38 mg/L	0.01 NTU	95.9 mV	51.68 ft	120.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/23/2021 10:42:43 AM

Project: Plant Branch (9)

Operator Name: Erin D Hondt

Location Name: BRGWC-38S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.66 ft Total Depth: 43.66 ft Initial Depth to Water: 22.2 ft	Pump Type: Dedicated Tubing Type: Polyethylene Pump Intake From TOC: 38.66 ft Estimated Total Volume Pumped: 4800 ml Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 0.85 ft	Instrument Used: Aqua TROLL 400 Serial Number: 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	
9/23/2021 10:42 AM	00:00	4.04 pH	19.51 °C	756.91 µS/cm	2.18 mg/L	2.88 NTU	79.9 mV	22.20 ft	160.00 ml/min
9/23/2021 10:47 AM	05:00	4.03 pH	19.64 °C	754.14 µS/cm	1.67 mg/L	3.83 NTU	80.5 mV	22.80 ft	160.00 ml/min
9/23/2021 10:52 AM	10:00	4.03 pH	19.80 °C	732.39 µS/cm	1.50 mg/L	3.24 NTU	82.0 mV	23.05 ft	160.00 ml/min
9/23/2021 10:57 AM	15:00	4.04 pH	19.95 °C	720.31 µS/cm	1.34 mg/L	3.67 NTU	83.0 mV	23.05 ft	160.00 ml/min
9/23/2021 11:02 AM	20:00	4.04 pH	20.06 °C	712.36 µS/cm	1.32 mg/L	2.67 NTU	84.2 mV	23.05 ft	160.00 ml/min
9/23/2021 11:07 AM	25:00	4.04 pH	20.16 °C	712.25 µS/cm	1.31 mg/L	1.24 NTU	85.4 mV	23.05 ft	160.00 ml/min
9/23/2021 11:12 AM	30:00	4.05 pH	20.22 °C	720.11 µS/cm	1.30 mg/L	0.58 NTU	87.0 mV	23.05 ft	160.00 ml/min

Samples

Sample ID:	Description:
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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

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.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
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 (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 ↓					
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 (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 ↓					
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 (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 ↓					
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 E

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-E between September 21, 2021 and September 23, 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).

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 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

Laboratory Precision:	Laboratory goals for precision were met
Field Precision:	Field goals for precision were met.
Accuracy:	Laboratory goals for accuracy were met.
Sensitivity:	Project goals for detection limits were met. Certain samples were diluted due to the concentration of 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.
Additional Comments:	Detections were found in certain blank results, as described in the qualification sections below

Holding Times: All holding time requirements were met.

Completeness: 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 concentration reported is an estimated.
- 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 92562860 and 92562974 qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- 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. When the original result was above the RL, the result was reported and qualified as non-detect (U).

Golder reviewed the data from samples collected at the Plant Branch CCR Ash Ponds E between September 21, 2021 and September 23, 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)	Radium-226 (EPA 9315)	Radium-228 (EPA 9320)
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		
92562974	BRGWC-17S	9/22/2021	92562974001	GW	-	X	X	X	X	X	X		
92562974	BRGWC-33S	9/22/2021	92562974002	GW	-	X	X	X	X	X	X		
92562974	BRGWC-34S	9/22/2021	92562974003	GW	-	X	X	X	X	X	X		
92562974	BRGWC-36S	9/22/2021	92562974004	GW	-	X	X	X	X	X	X		
92562974	EB-1	9/22/2021	92562974005	WQ	EB (BRGWC-17S)	X	X	X	X	X	X		
92562974	FB-1	9/22/2021	92562974006	WQ	FB (BRGWC-33S)	X	X	X	X	X	X		
92562974	BRGWC-35S	9/23/2021	92562974007	GW	-	X	X	X	X	X	X		
92562974	BRGWC-37S	9/23/2021	92562974008	GW	-	X	X	X	X	X	X		
92562974	BRGWC-38S	9/23/2021	92562974009	GW	-	X	X	X	X	X	X		
92562974	DUP-1	9/23/2021	92562974010	GW	FD (BRGWC-35S)	X	X	X	X	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
92562947	BRGWC-17S	9/22/2021	92562947001	GW	-							X	X
92562947	BRGWC-33S	9/22/2021	92562947002	GW	-							X	X
92562947	BRGWC-34S	9/22/2021	92562947003	GW	-							X	X
92562947	BRGWC-36S	9/22/2021	92562947004	GW	-							X	X
92562947	EB-1	9/22/2021	92562947005	WQ	EB (BRGWC-17S)							X	X
92562947	FB-1	9/22/2021	92562947006	WQ	FB (BRGWC-33S)							X	X
92562947	BRGWC-35S	9/23/2021	92562947007	GW	-							X	X
92562947	BRGWC-37S	9/23/2021	92562947008	GW	-							X	X
92562947	BRGWC-38S	9/23/2021	92562947009	GW	-							X	X
92562947	DUP-1	9/23/2021	92562947010	GW	FD (BRGWC-35S)							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>
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
92562974	BRGWC-17S	Mercury	0.0002	--	U	Method / Equipment blank detection
92562974	BRGWC-33S	Mercury	0.0002	--	U	Method / Field blank detection
92562974	BRGWC-34S	Mercury	0.0002	--	U	Method blank detection
92562974	BRGWC-36S	Mercury	0.0002	--	U	Method blank detection
92562974	BRGWC-35S	Mercury	0.0002	--	U	Method blank detection
92562974	BRGWC-37S	Mercury	0.0002	--	U	Method blank detection
92562974	BRGWC-38S	Mercury	--	0.00022	U	Method blank detection
92562974	DUP-1	Mercury	0.0002	--	U	Method blank detection
92562974	DUP-1	Fluoride			J+	MS/MSD exceeded upper control limit

Abbreviations:

SDG : Sample delivery group

RL : Reporting limit

MDC : Minimum detectable concentration

MS/MSD: Matrix spike/Matrix spike duplicate

Qualifiers:

U : Non-detect result

J+: Estimated value, bias high

APPENDIX B

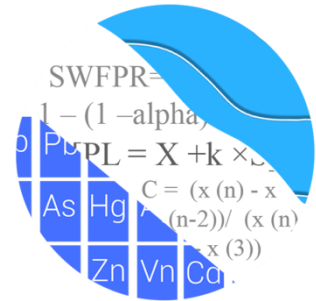
STATISTICAL ANALYSES

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 Pond E – September 2021 Semi-Annual 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 Pond E. 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 for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. A list of all parameters is provided below.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** BRGWA-2I, BRGWA-2S, BRGWA-5I, BRGWA-5S, and BRGWA-6S
- **Downgradient wells:** BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, and BRGWC-38S

The Coal Combustion Residuals (CCR) monitoring 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.

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). 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 methods were selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of

data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the 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 (Figure C). Although outliers were screened for all wells, only outliers in upgradient wells will affect the interwell prediction limits.

When suspected outliers were evaluated using the Tukey box plot method during the previous screening, a few 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 were 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.

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 Test Evaluation

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 in upgradient wells 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 showed a handful of statistically significant decreasing and increasing trends for the Appendix III parameters. All trends noted were relatively low in magnitude when compared to average concentrations and were in downgradient wells; therefore, they did not affect the interwell limits, and no adjustments were made to the data sets. Trend test results were included with the background screening report.

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 and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the background prediction limits follows this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- Calcium: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- Chloride: BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- Fluoride: BRGWC-38S
- pH (lower limit): BRGWC-33S, BRGWC-36S, BRGWC-37S, and BRGWC-38S
- Sulfate: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S
- TDS: BRGWC-17S, BRGWC-34S, BRGWC-35S, BRGWC-36S, and BRGWC-38S

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 for upgradient and downgradient wells, statistically significant increasing trends were identified for boron in well BRGWC-35S, calcium in upgradient well BRGWA-6S, and chloride in well BRGWC-36S. 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, which includes all downgradient wells for molybdenum. 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:

- Beryllium: BRGWC-38S
- Cobalt: BRGWC-33S and BRGWC-38S

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. While no statistically significant increasing trends were identified, statistically significant decreasing trends were noted for the following well/constituent pairs:

- Beryllium: BRGWC-38S
- Cobalt: BRGWC-33S and BRGWC-38S

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Branch Pond E. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina L. Rayner
Groundwater Statistician



Andrew T. Collins
Project Manager

100% Non-Detects

Analysis Run 11/28/2021 8:07 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Antimony (mg/L)
BRGWC-33S, BRGWC-34S, BRGWC-35S

Arsenic (mg/L)
BRGWC-34S

Beryllium (mg/L)
BRGWC-17S, BRGWC-37S

Cadmium (mg/L)
BRGWC-17S, BRGWC-35S, BRGWC-37S

Chromium (mg/L)
BRGWC-34S

Cobalt (mg/L)
BRGWC-17S, BRGWC-36S, BRGWC-37S

Lithium (mg/L)
BRGWC-37S

Molybdenum (mg/L)
BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, BRGWC-38S

Selenium (mg/L)
BRGWC-34S, BRGWC-35S, BRGWC-37S

Thallium (mg/L)
BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S

Interwell Prediction Limit - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 7:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method	
Boron (mg/L)	BRGWC-33S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/22/2021	2.2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/23/2021	2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/23/2021	1.4	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/22/2021	36.4	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/22/2021	28.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/22/2021	76.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/23/2021	70.5	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/22/2021	53.7	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/23/2021	36.8	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	9/22/2021	5.6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	9/23/2021	6.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	9/22/2021	7.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	9/23/2021	6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	9/23/2021	0.85	Yes	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.076	5.912	9/22/2021	4.81	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.076	5.912	9/22/2021	5.53	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.076	5.912	9/23/2021	5.85	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.076	5.912	9/23/2021	4.05	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	9/22/2021	123	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	9/22/2021	94.6	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	9/22/2021	232	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	9/23/2021	258	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	9/22/2021	234	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	9/23/2021	318	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	9/22/2021	323	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	9/22/2021	406	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	9/23/2021	511	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	9/22/2021	457	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	9/23/2021	528	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2

Interwell Prediction Limit - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 7:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.04	n/a	9/22/2021	0.02J	No	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/22/2021	2.2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/23/2021	2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.04	n/a	9/23/2021	0.04ND	No	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/23/2021	1.4	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/22/2021	36.4	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/22/2021	28.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/22/2021	76.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/23/2021	70.5	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/22/2021	53.7	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	9/23/2021	3.7	No	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/23/2021	36.8	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	9/22/2021	4.6	No	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	9/22/2021	2.7	No	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	9/22/2021	5.6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	9/23/2021	6.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	9/22/2021	7.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	9/23/2021	1.9	No	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	9/23/2021	6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	9/22/2021	0.1	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	9/22/2021	0.068J	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.19	n/a	9/22/2021	0.1	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	9/23/2021	0.073J	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	9/22/2021	0.054J	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.19	n/a	9/23/2021	0.1ND	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	9/23/2021	0.85	Yes	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.076	5.912	9/22/2021	6.22	No	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.076	5.912	9/22/2021	4.81	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.076	5.912	9/22/2021	5.93	No	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.076	5.912	9/23/2021	6.08	No	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.076	5.912	9/22/2021	5.53	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.076	5.912	9/23/2021	5.85	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.076	5.912	9/23/2021	4.05	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	9/22/2021	123	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	9/22/2021	94.6	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	9/22/2021	232	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	9/23/2021	258	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	9/22/2021	234	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	9/23/2021	0.5ND	No	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	9/23/2021	318	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	9/22/2021	323	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	9/22/2021	190	No	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	9/22/2021	406	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	9/23/2021	511	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	9/22/2021	457	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	299	n/a	9/23/2021	49	No	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	9/23/2021	528	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 8:01 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>
Boron (mg/L)	BRGWC-35S	0.1871	71	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-34S	-4.934	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.931	-55	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2607	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	1.111	64	48	Yes	14	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
pH, Field (S.U.)	BRGWC-38S	-0.1644	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-21.01	-54	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-35.99	-80	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-33.47	-66	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-57.34	-65	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-16.06	-63	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-52.14	-77	-48	Yes	14	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 8:01 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
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-33S	0	-1	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0	1	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1871	71	48	Yes	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03939	46	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.08072	-44	-48	No	14	0	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
Calcium (mg/L)	BRGWA-6S (bg)	0.177	51	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.591	42	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-2.641	-41	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.934	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	2.011	36	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.2098	-10	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.931	-55	-48	Yes	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-34S	-0.2607	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.04963	16	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	1.111	64	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1287	11	48	No	14	0	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-38S	0.01742	21	58	No	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
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-33S	-0.009037	-29	-63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-36S	-0.004873	-4	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-37S	0.02208	10	43	No	13	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1644	-78	-58	Yes	16	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
Sulfate (mg/L)	BRGWC-17S	2.57	24	48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-21.01	-54	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-35.99	-80	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-2.219	-16	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-12.6	-42	-48	No	14	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 8:01 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>
Sulfate (mg/L)	BRGWC-38S	-33.47	-66	-48	Yes	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-17S	-1.586	-6	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-57.34	-65	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	-0.7228	-1	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-16.06	-63	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-52.14	-77	-48	Yes	14	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/27/2021, 3:56 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	75	n/a	n/a	90.67	n/a	n/a	0.02134	NP Inter(NDs)
Arsenic (mg/L)	0.005	75	n/a	n/a	77.33	n/a	n/a	0.02134	NP Inter(NDs)
Barium (mg/L)	0.063	75	n/a	n/a	0	n/a	n/a	0.02134	NP Inter(normality)
Beryllium (mg/L)	0.0005	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)
Cadmium (mg/L)	0.0005	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)
Chromium (mg/L)	0.016	75	n/a	n/a	16	n/a	n/a	0.02134	NP Inter(normality)
Cobalt (mg/L)	0.005	73	n/a	n/a	46.58	n/a	n/a	0.02365	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	1.397	75	0.6541	0.3768	0	None	No	0.05	Inter
Fluoride (mg/L)	0.19	80	n/a	n/a	51.25	n/a	n/a	0.01652	NP Inter(normality)
Lead (mg/L)	0.0013	75	n/a	n/a	77.33	n/a	n/a	0.02134	NP Inter(NDs)
Lithium (mg/L)	0.089	75	n/a	n/a	42.67	n/a	n/a	0.02134	NP Inter(normality)
Mercury (mg/L)	0.00021	65	n/a	n/a	84.62	n/a	n/a	0.03565	NP Inter(NDs)
Molybdenum (mg/L)	0.01	75	n/a	n/a	69.33	n/a	n/a	0.02134	NP Inter(normality)
Selenium (mg/L)	0.005	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)
Thallium (mg/L)	0.001	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)

PLANT BRANCH POND E GWPS			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.003	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.063	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	0.005	0.005
Combined Radium, Total (pCi/L)	5	1.4	5
Fluoride, Total (mg/L)	4	0.19	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	0.005	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:14 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>
Beryllium (mg/L)	BRGWC-38S	0.009533	0.00803	0.004	Yes	16	0.008781	0.001155	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05247	0.03819	0.005	Yes	16	0.04533	0.01097	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.261	0.2111	0.005	Yes	15	0.2361	0.03678	0	None	No	0.01	Param.

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	15	0.00286	0.0005422	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0006	0.006	No	15	0.002403	0.001059	73.33	None	No	0.01	NP (normality)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	15	0.002667	0.0008805	86.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	15	0.002707	0.000775	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.00073	0.01	No	15	0.004014	0.001802	73.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-33S	0.005	0.0006	0.01	No	16	0.004447	0.00151	87.5	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	15	0.004096	0.001872	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	15	0.004143	0.001777	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.00078	0.01	No	15	0.004107	0.001851	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003552	0.001712	0.01	No	15	0.002632	0.001358	6.667	None	No	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04272	0.03851	2	No	15	0.04061	0.003109	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.02247	0.02007	2	No	16	0.02127	0.00184	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-34S	0.03481	0.02498	2	No	15	0.02989	0.007253	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0701	0.036	2	No	15	0.04955	0.01952	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.04452	0.03212	2	No	15	0.03894	0.01063	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-37S	0.02514	0.02294	2	No	15	0.02404	0.00162	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0338	0.015	2	No	15	0.02211	0.01015	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-33S	0.0021	0.0014	0.004	No	16	0.001975	0.000856	6.25	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-34S	0.0002	0.0001	0.004	No	15	0.0007847	0.001712	13.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.00016	0.0001	0.004	No	15	0.000778	0.001714	13.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.005	0.000081	0.004	No	16	0.00132	0.002194	25	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009533	0.00803	0.004	Yes	16	0.008781	0.001155	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0004567	0.0003146	0.005	No	16	0.0003856	0.0001092	6.25	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0004931	0.0002202	0.005	No	15	0.0003707	0.0002201	13.33	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.0005	0.0001	0.005	No	16	0.0004488	0.0001401	87.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0006164	0.0004902	0.005	No	15	0.0005533	0.00009309	6.667	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-17S	0.01271	0.009722	0.1	No	15	0.01129	0.002403	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.005	0.00049	0.1	No	16	0.004718	0.001127	93.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006645	0.004195	0.1	No	15	0.00542	0.001808	6.667	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.00845	0.00723	0.1	No	15	0.00784	0.0009006	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.005	0.0013	0.1	No	15	0.002207	0.001461	20	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.004183	0.003449	0.1	No	15	0.00372	0.0007885	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05247	0.03819	0.005	Yes	16	0.04533	0.01097	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.004668	0.003235	0.005	No	15	0.004	0.001182	6.667	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BRGWC-35S	0.005	0.0008	0.005	No	15	0.003667	0.001999	66.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-38S	0.261	0.2111	0.005	Yes	15	0.2361	0.03678	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.8147	0.3418	5	No	15	0.5783	0.3489	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.228	0.6374	5	No	15	0.9329	0.4361	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.099	0.7584	5	No	15	0.9289	0.2516	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.028	0.4491	5	No	15	0.7385	0.4271	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.211	0.636	5	No	15	0.9233	0.4239	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.7803	0.3765	5	No	15	0.5784	0.2979	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.056	1.939	5	No	15	2.498	0.8238	0	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.16	0.085	4	No	16	0.1111	0.0461	6.25	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-33S	0.2372	0.1092	4	No	17	0.1818	0.114	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.15	0.07581	4	No	16	0.1241	0.08598	6.25	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.129	0.06211	4	No	16	0.1058	0.07576	12.5	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.051	4	No	16	0.1159	0.1129	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.05	4	No	16	0.07813	0.02796	43.75	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9503	0.724	4	No	16	0.8481	0.204	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.001	0.0001	0.0013	No	15	0.0008769	0.0003249	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.001	0.000063	0.0013	No	16	0.0003298	0.0004019	25	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.001	0.0003	0.0013	No	15	0.0008327	0.0003493	80	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.001	0.00012	0.0013	No	15	0.000768	0.0003988	73.33	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-36S	0.001	0.000047	0.0013	No	15	0.0009365	0.0002461	93.33	None	No	0.01	NP (NDs)

Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	BRGWC-37S	0.001	0.0001	0.0013	No	15	0.00088	0.0003167	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00034	0.0013	No	15	0.0004333	0.0001676	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-17S	0.03	0.00097	0.089	No	15	0.01839	0.01472	60	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-33S	0.0103	0.009187	0.089	No	16	0.009744	0.0008563	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.03	0.00089	0.089	No	15	0.02029	0.01421	66.67	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-35S	0.0022	0.002	0.089	No	15	0.00214	0.00008281	0	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0022	0.089	No	15	0.0043	0.007111	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02256	0.02032	0.089	No	15	0.02144	0.001659	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.000084	0.002	No	13	0.0001726	0.00005268	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	14	0.0001736	0.00005486	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00007	0.002	No	13	0.0001677	0.00005615	69.23	None	No	0.01	NP (normality)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00011	0.002	No	13	0.0001777	0.00004419	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.0001	0.002	No	13	0.0001769	0.00004553	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00011	0.002	No	13	0.0001777	0.00004549	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.0001773	0.0001034	0.002	No	13	0.0001404	0.00004968	7.692	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.00269	0.001711	0.05	No	15	0.003087	0.001371	26.67	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	16	0.003919	0.001242	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.005369	0.003098	0.05	No	15	0.004313	0.001805	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04205	0.03334	0.05	No	15	0.03769	0.006428	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.001	0.000066	0.002	No	15	0.0009377	0.0002412	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00022	0.00018	0.002	No	16	0.0002456	0.0002023	6.25	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.001	0.00019	0.002	No	15	0.0003953	0.0003188	20	None	No	0.01	NP (normality)

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:18 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	-0.0005005	-64	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.006894	-108	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02062	-71	-53	Yes	15	0	n/a	n/a	0.01	NP

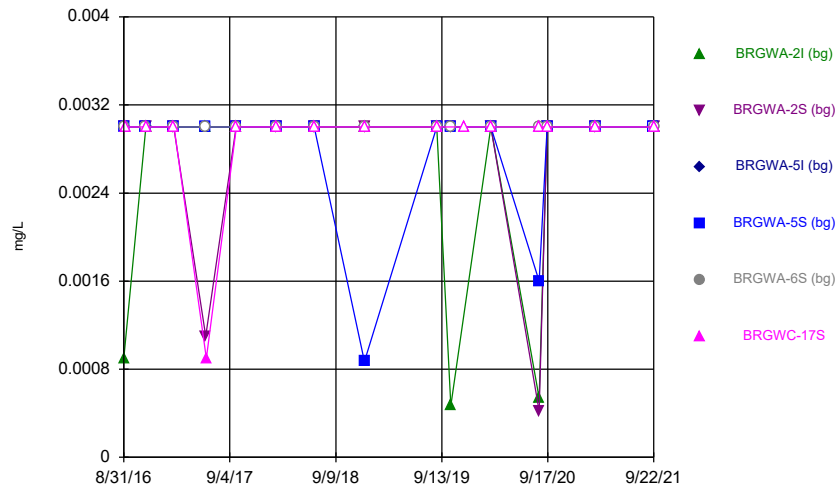
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:18 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWC-38S	-0.0005005	-64	-58	Yes	16	0	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-33S	-0.006894	-108	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02062	-71	-53	Yes	15	0	n/a	n/a	0.01	NP

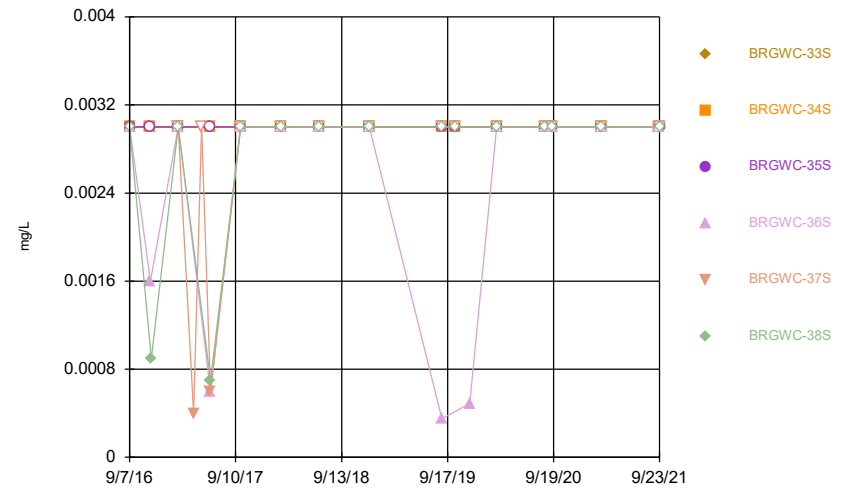
FIGURE A.

Time Series



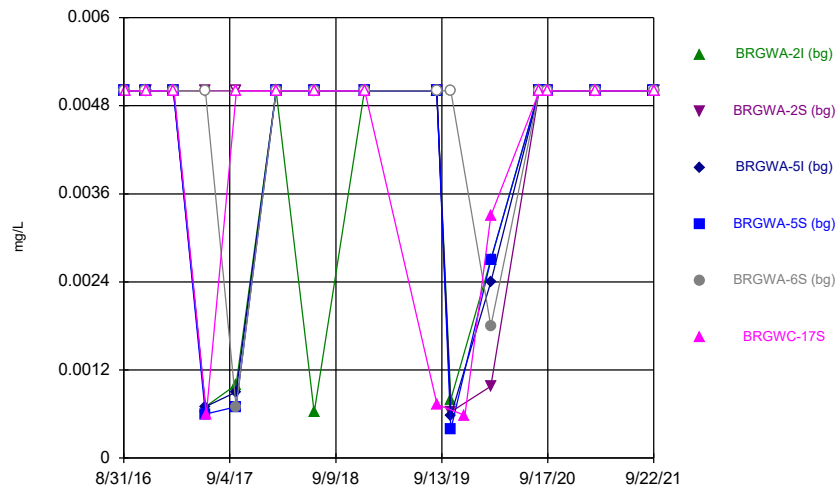
Constituent: Antimony Analysis Run 11/27/2021 4:33 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



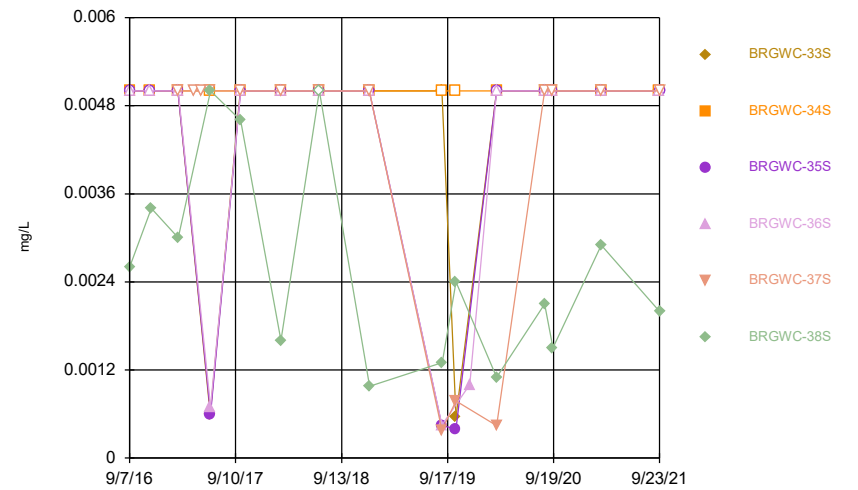
Constituent: Antimony Analysis Run 11/27/2021 4:33 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



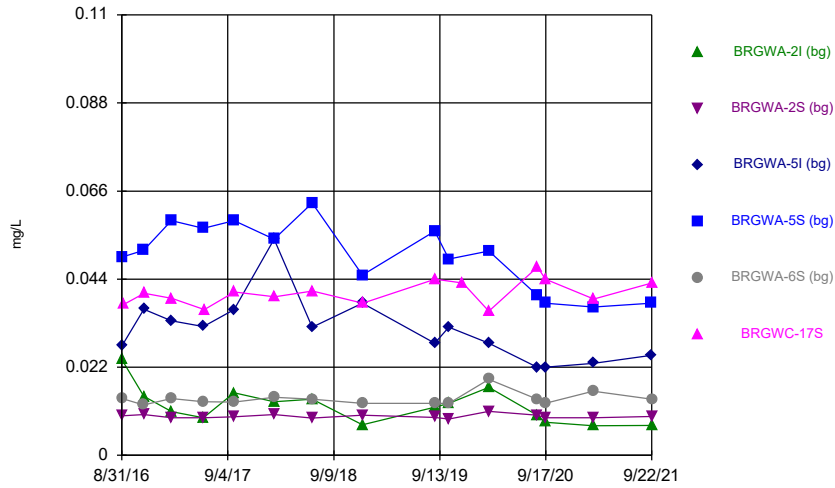
Constituent: Arsenic Analysis Run 11/27/2021 4:33 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



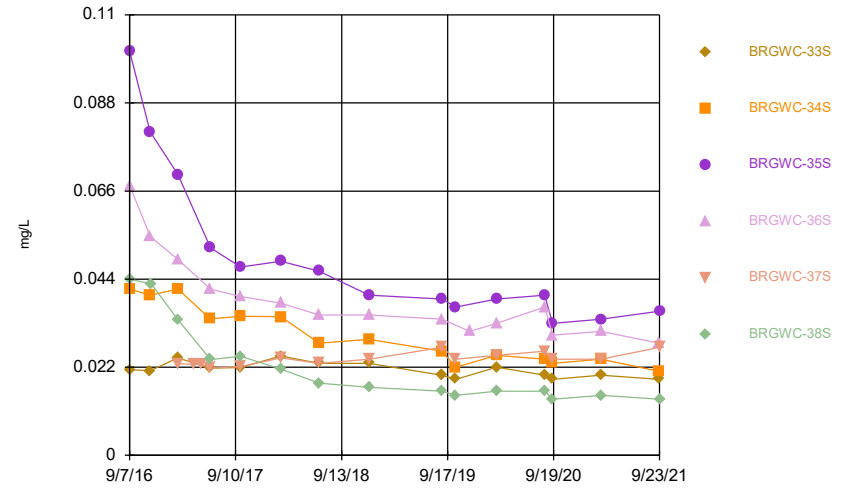
Constituent: Arsenic Analysis Run 11/27/2021 4:33 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



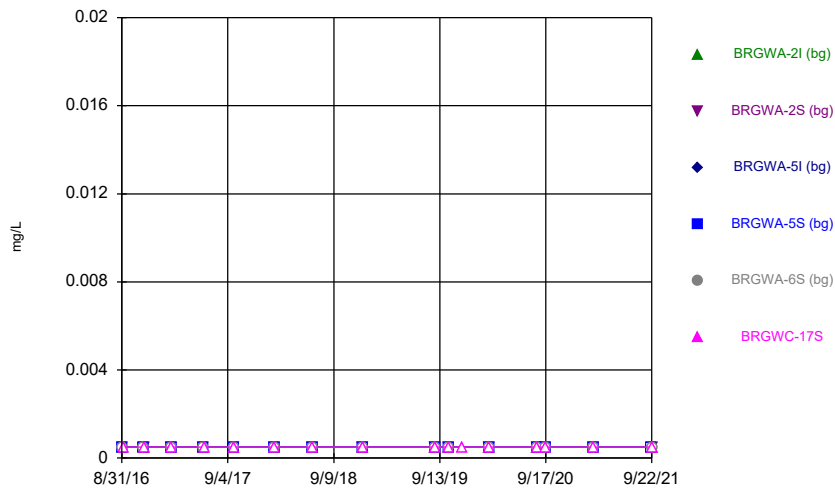
Constituent: Barium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



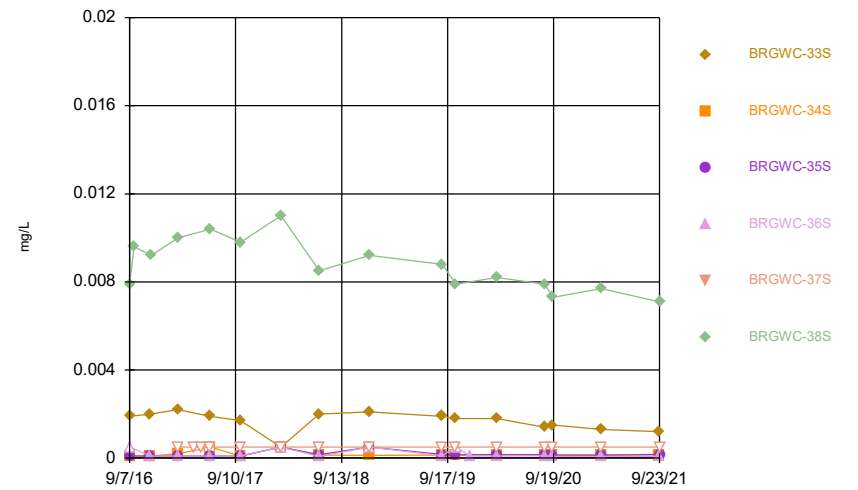
Constituent: Barium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



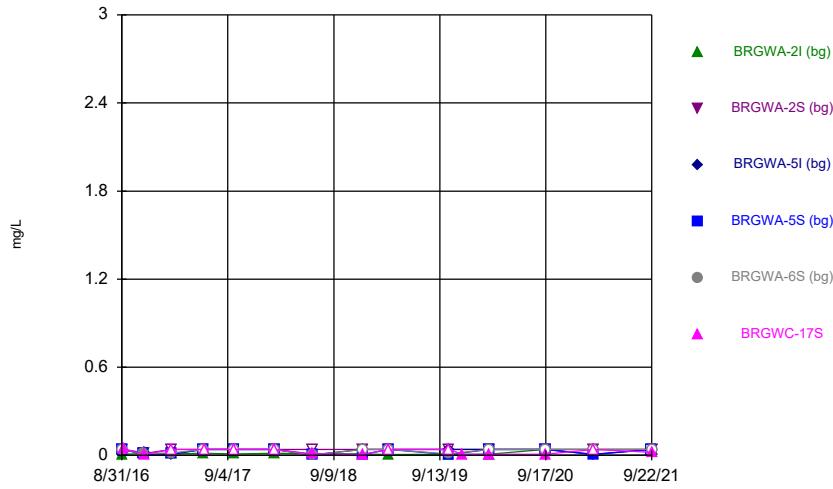
Constituent: Beryllium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



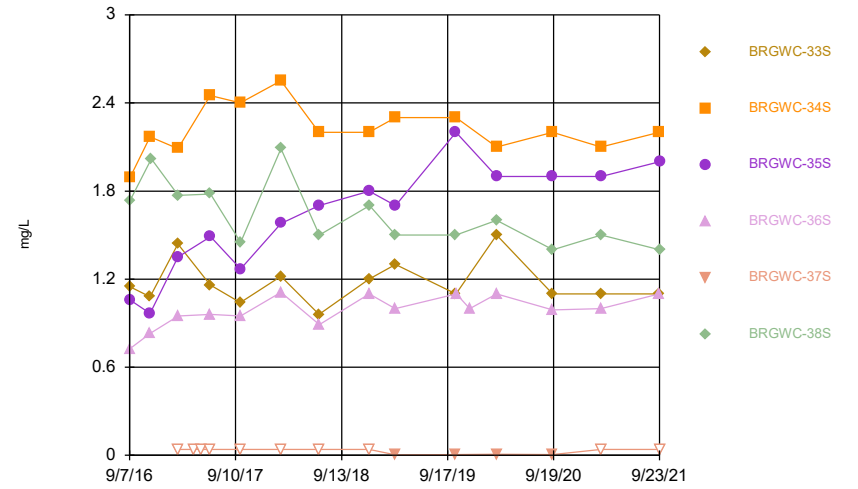
Constituent: Beryllium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



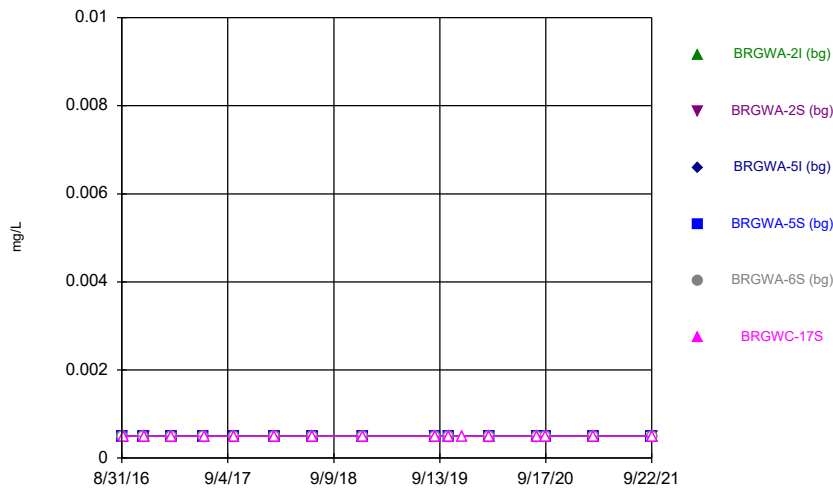
Constituent: Boron Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



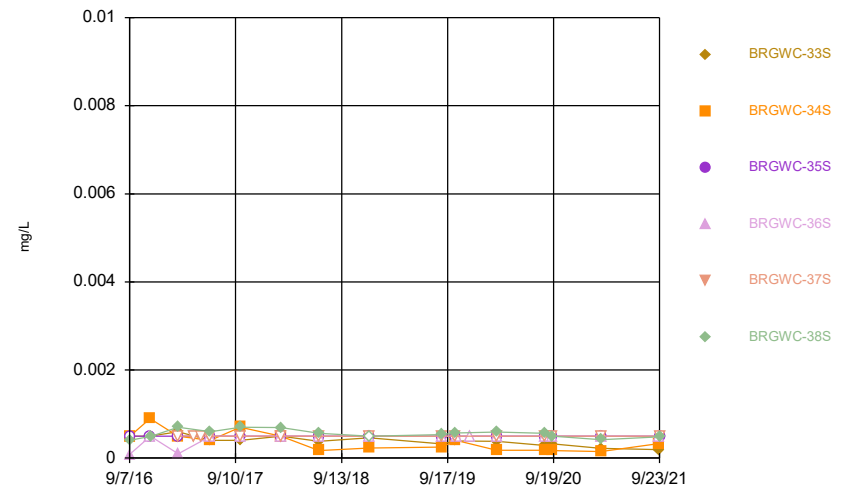
Constituent: Boron Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



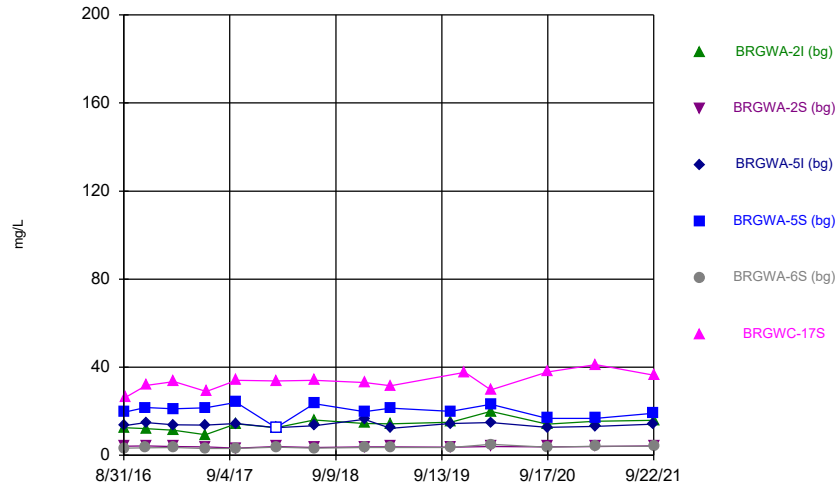
Constituent: Cadmium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



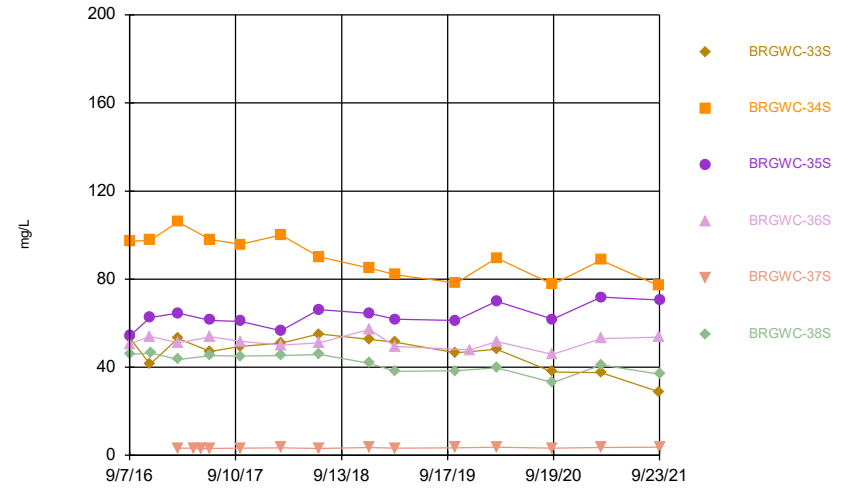
Constituent: Cadmium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



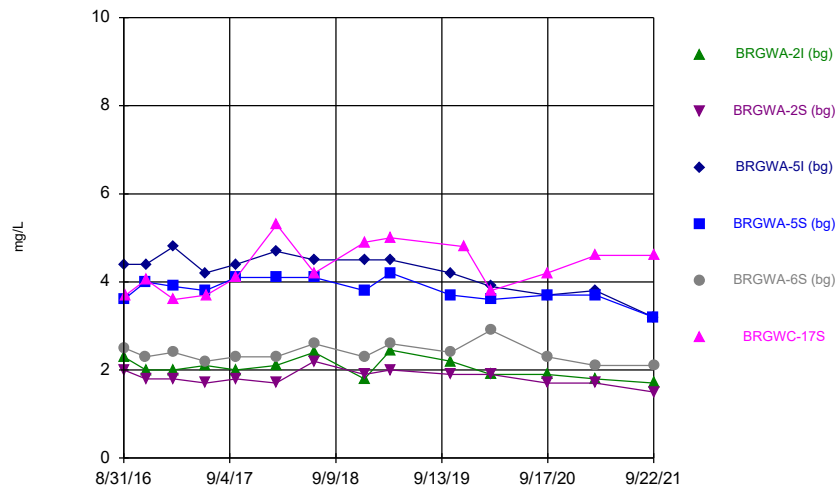
Constituent: Calcium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



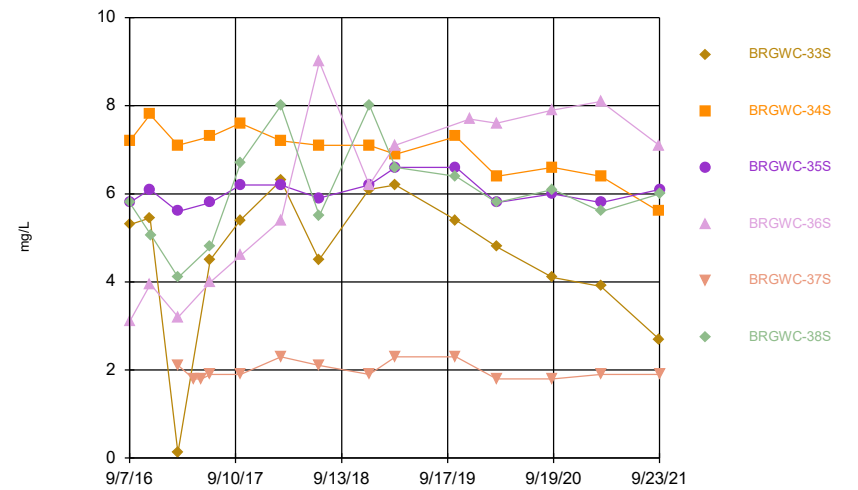
Constituent: Calcium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



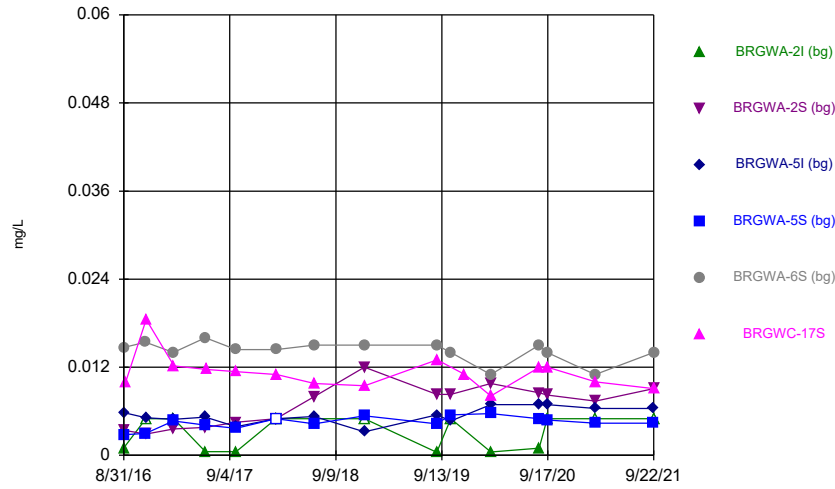
Constituent: Chloride Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



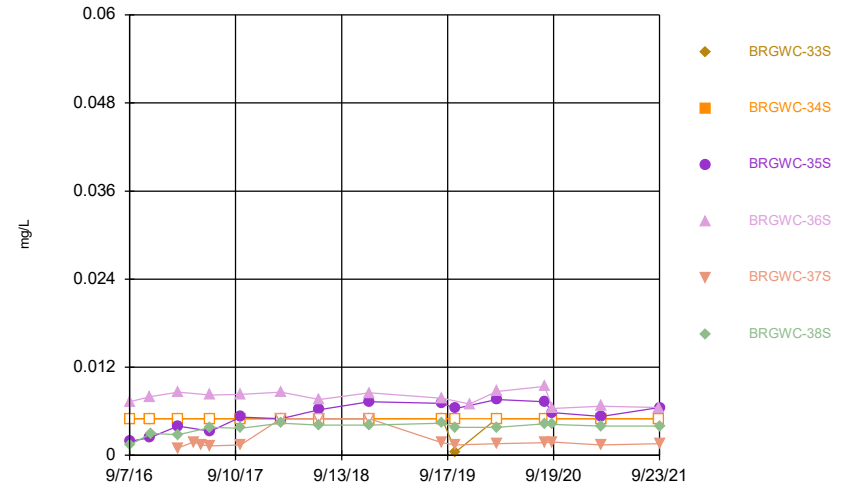
Constituent: Chloride Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



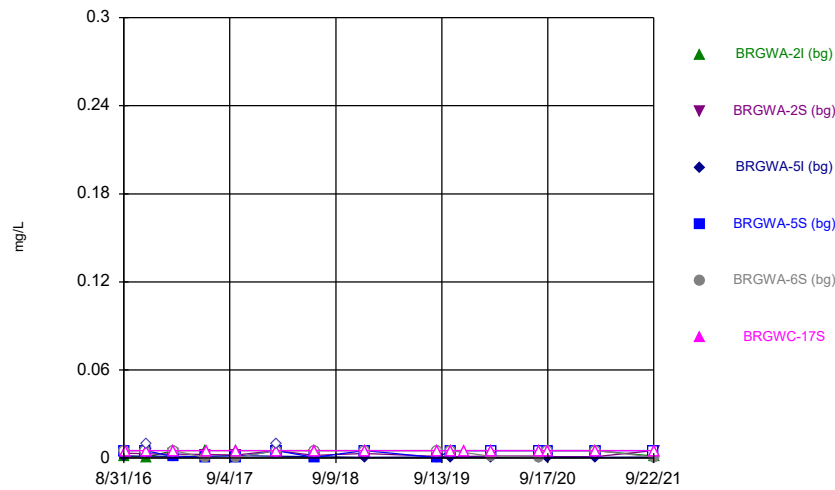
Constituent: Chromium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



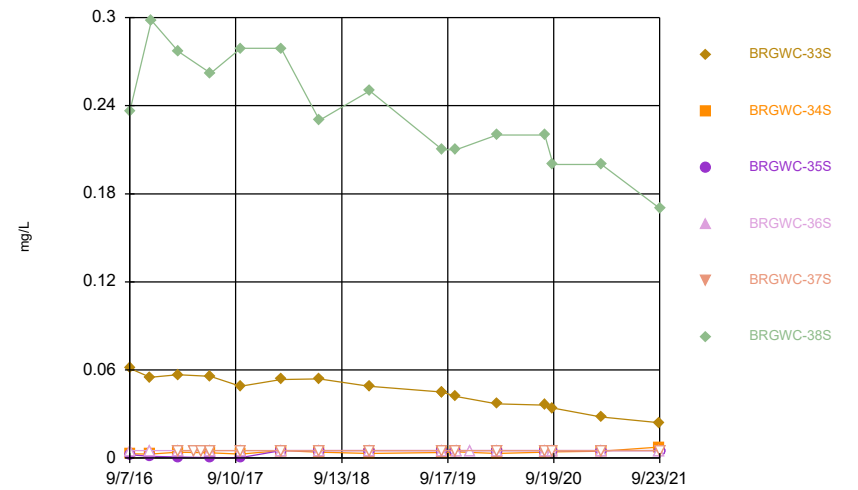
Constituent: Chromium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



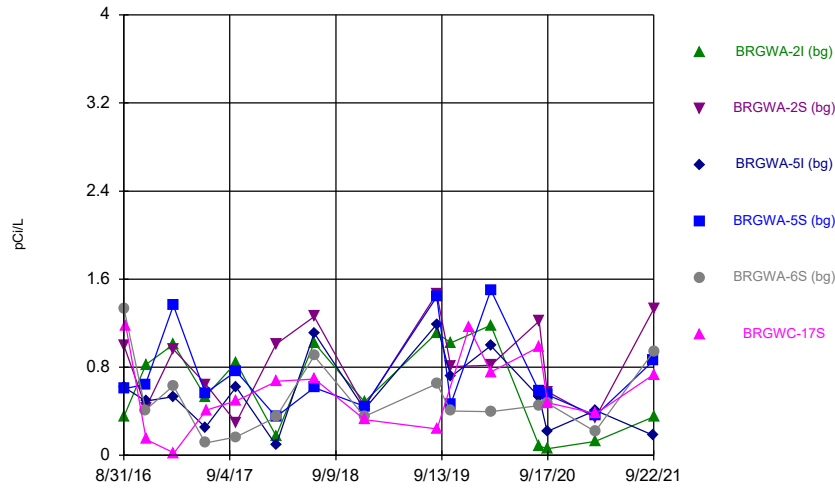
Constituent: Cobalt Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



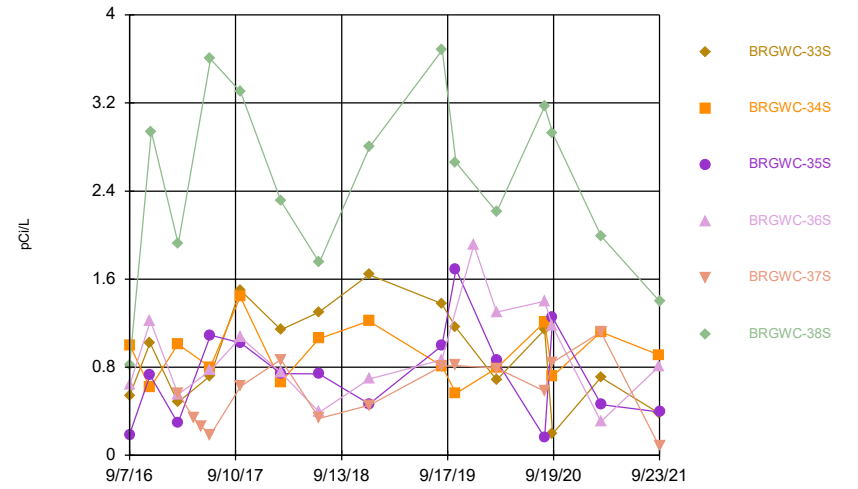
Constituent: Cobalt Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



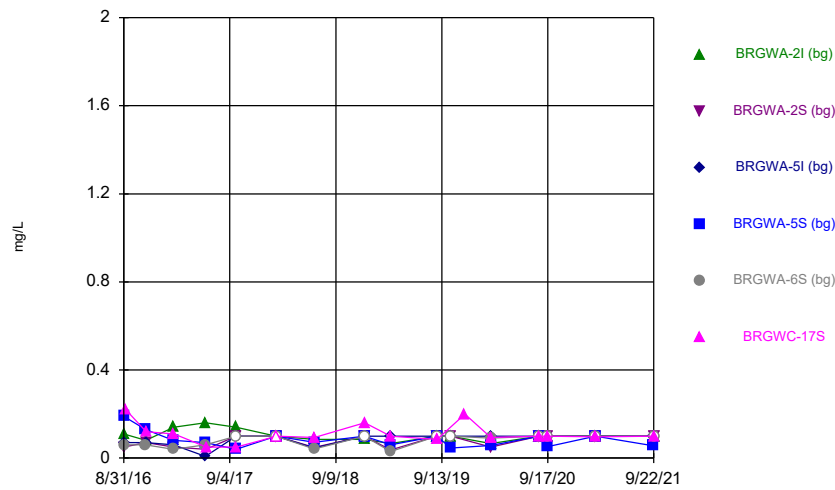
Constituent: Combined Radium 226 + 228 Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



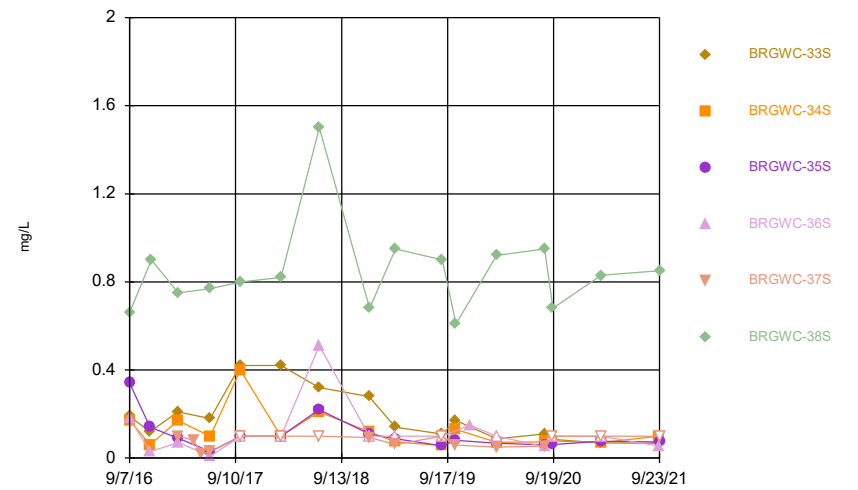
Constituent: Combined Radium 226 + 228 Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



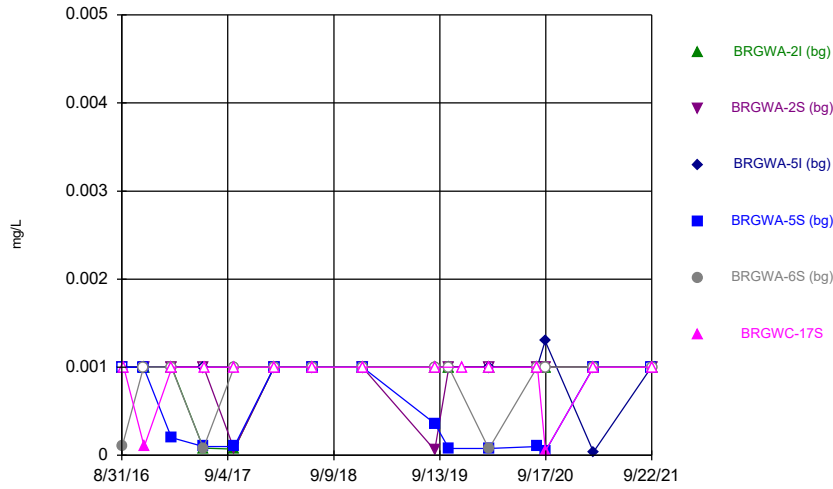
Constituent: Fluoride Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



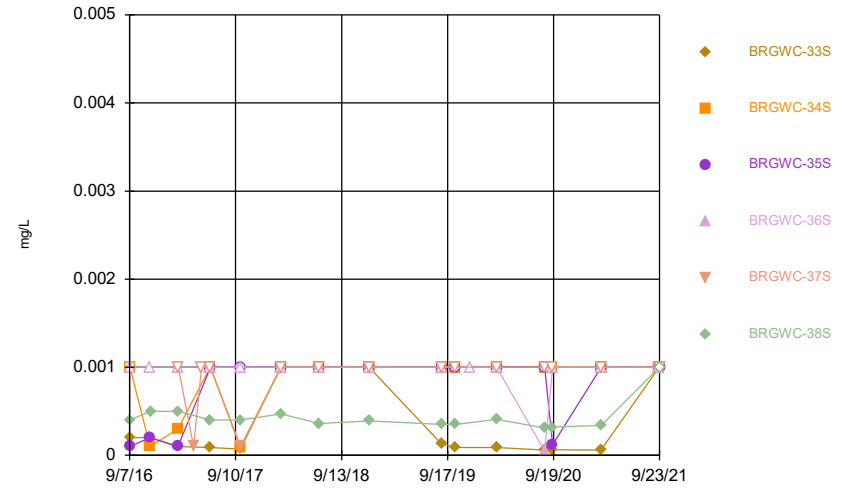
Constituent: Fluoride Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



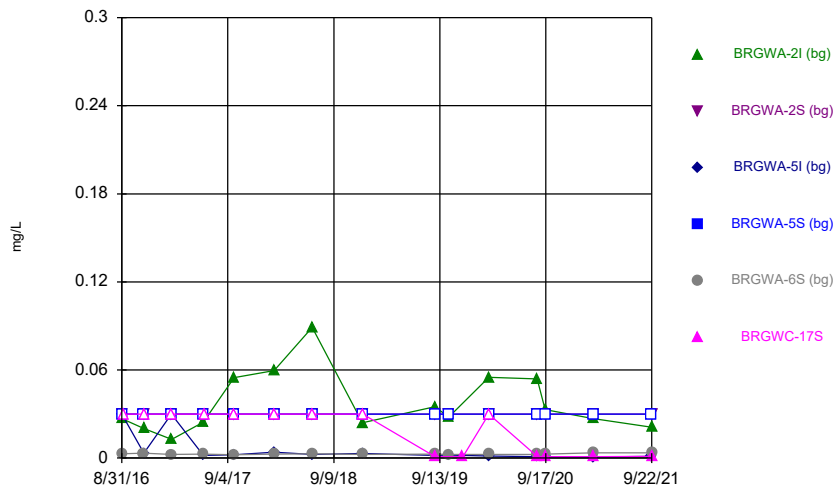
Constituent: Lead Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



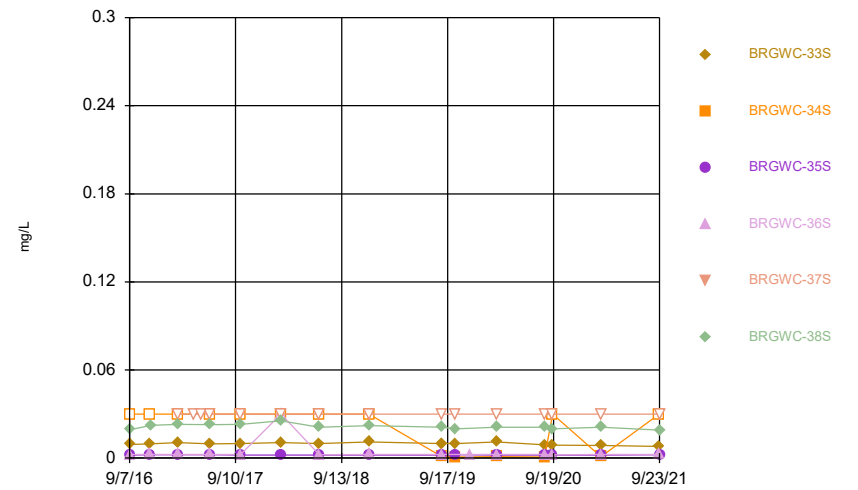
Constituent: Lead Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



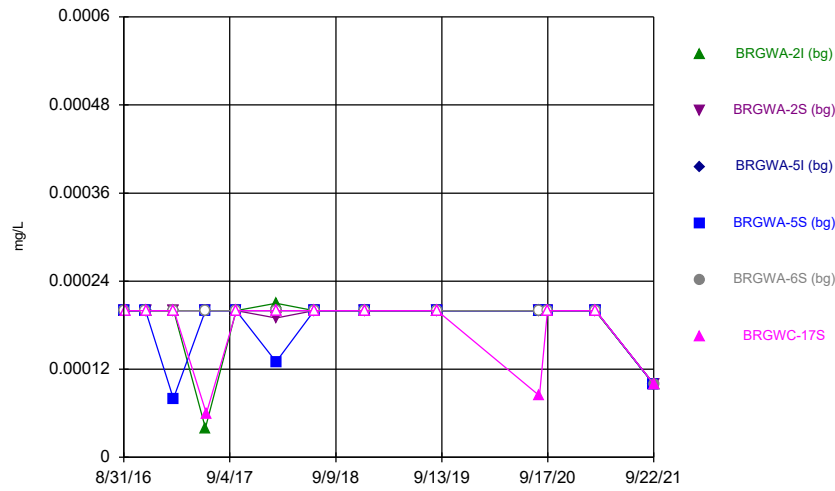
Constituent: Lithium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



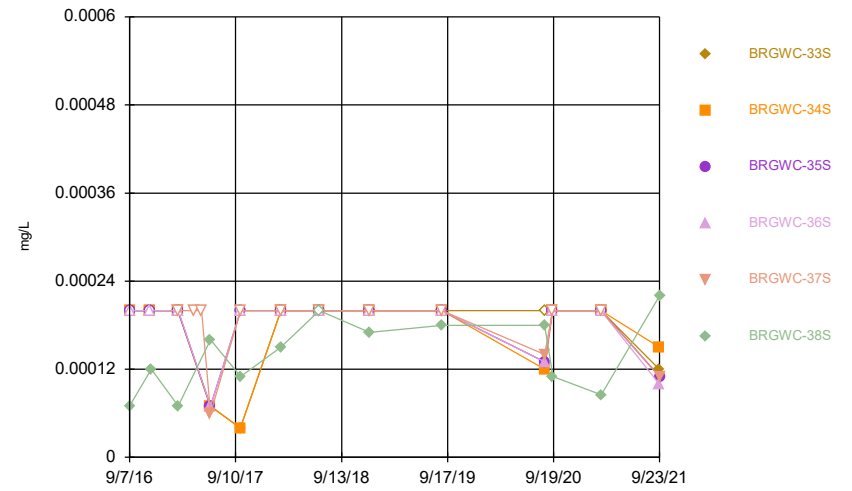
Constituent: Lithium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



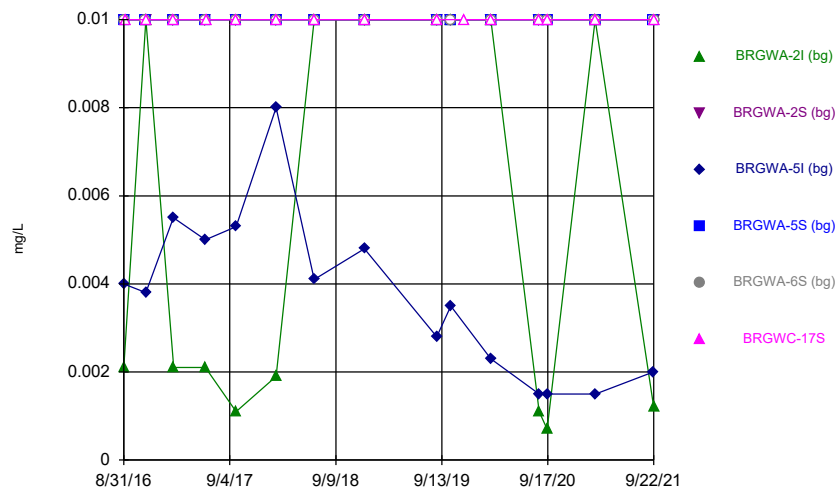
Constituent: Mercury Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



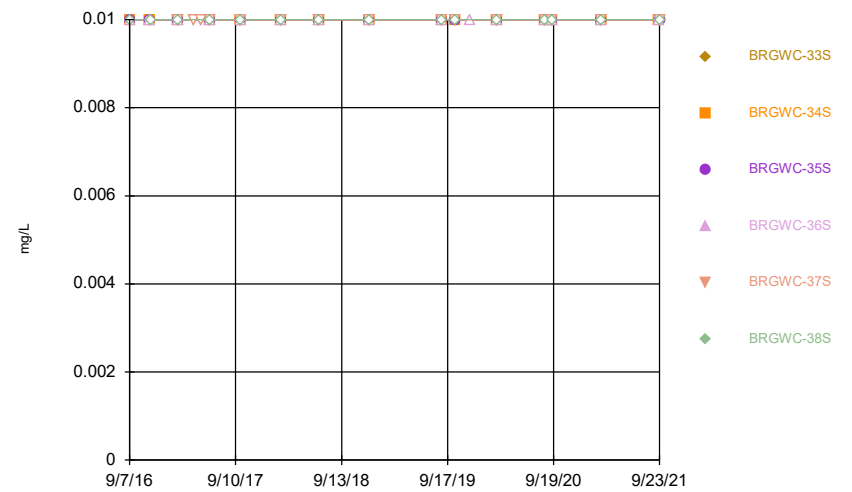
Constituent: Mercury Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



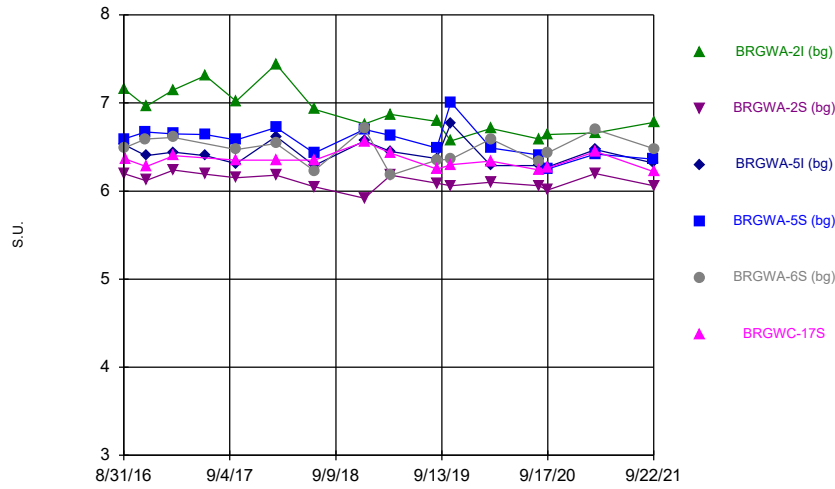
Constituent: Molybdenum Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



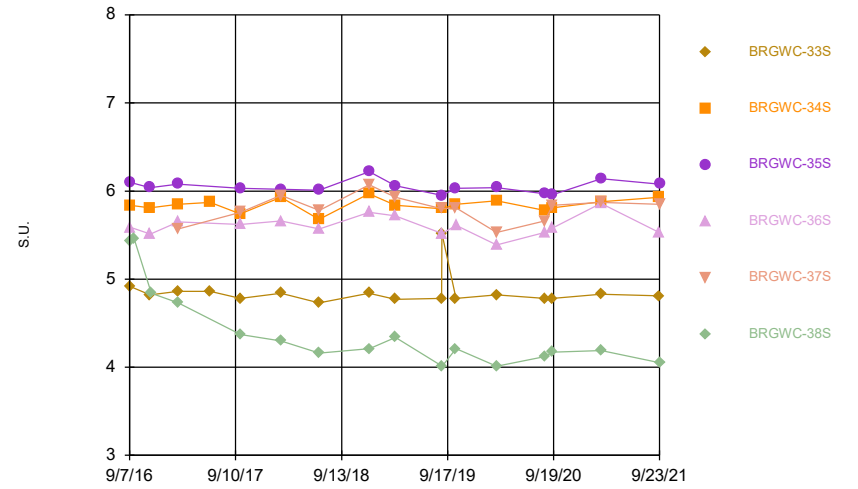
Constituent: Molybdenum Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



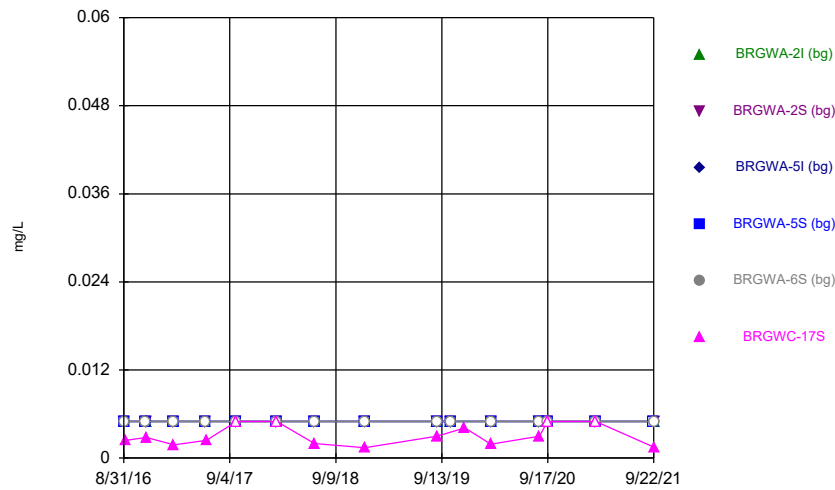
Constituent: pH, Field Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



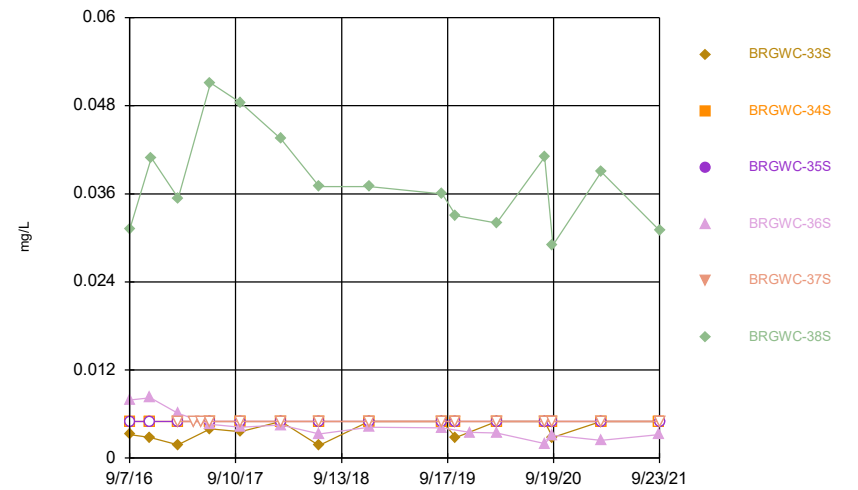
Constituent: pH, Field Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



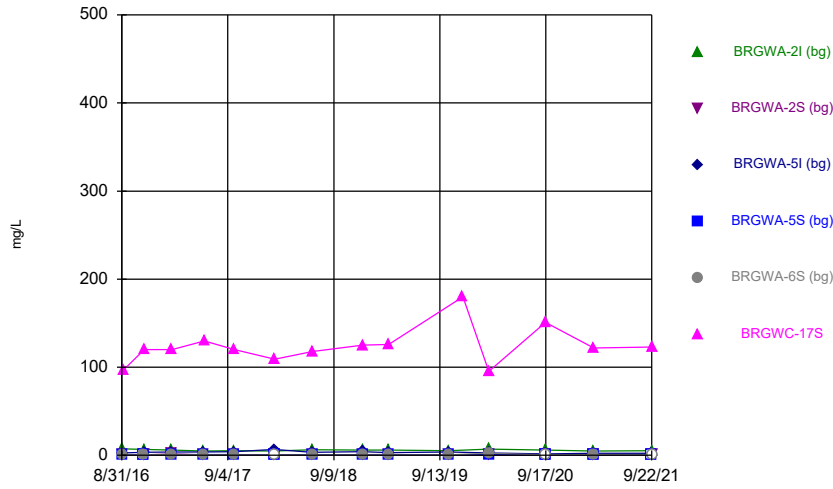
Constituent: Selenium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



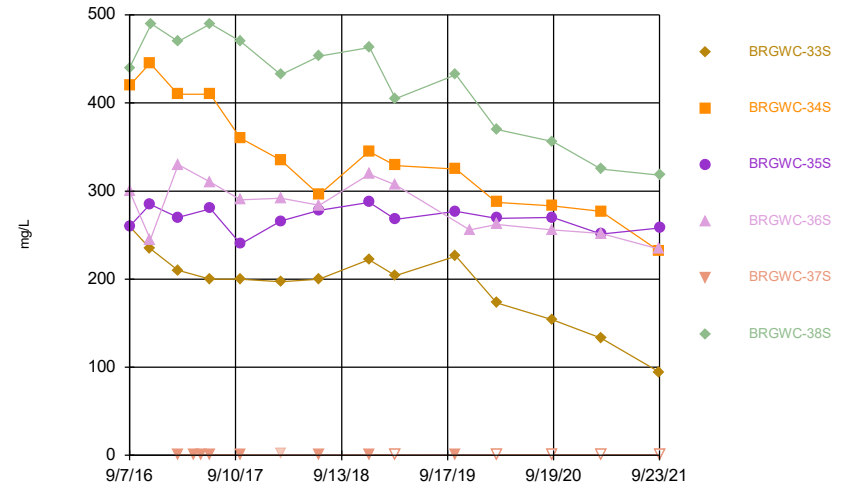
Constituent: Selenium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



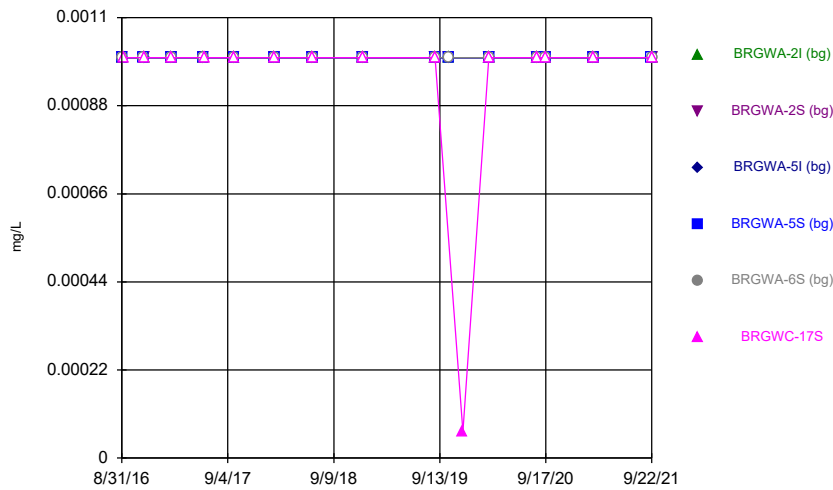
Constituent: Sulfate Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



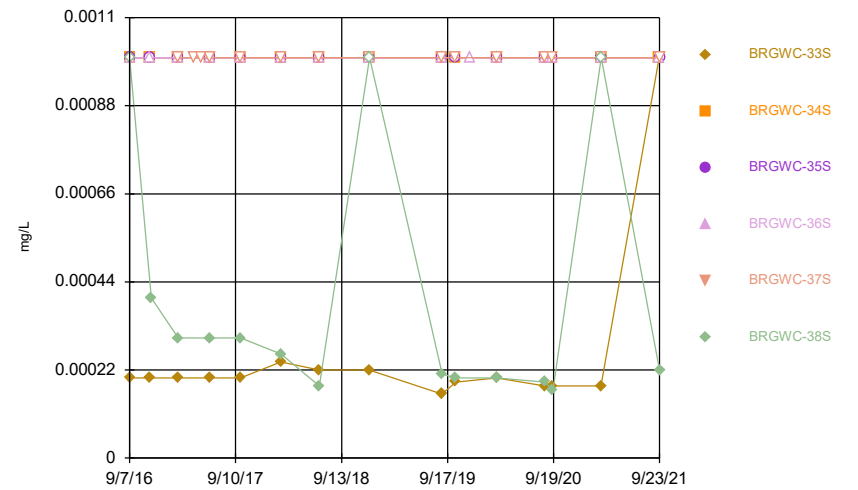
Constituent: Sulfate Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



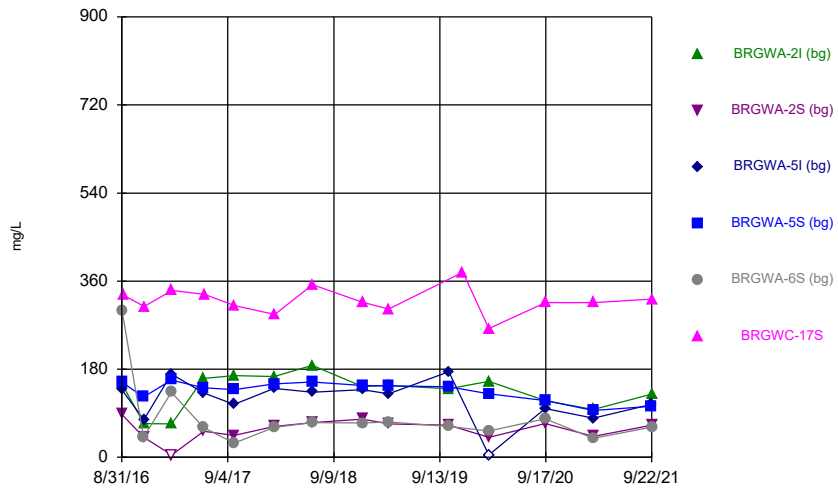
Constituent: Thallium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



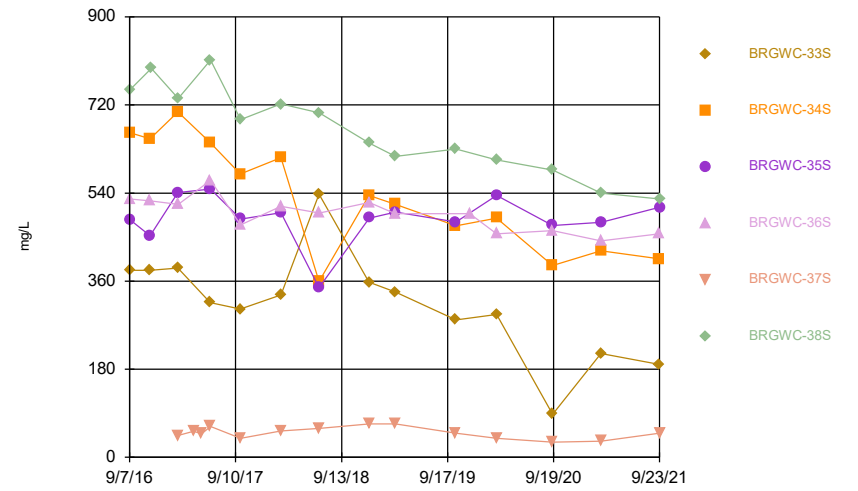
Constituent: Thallium Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/27/2021 4:34 PM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.003		<0.003
11/18/2016	0.0016 (J)		
11/21/2016			0.0009 (J)
2/23/2017	<0.003	<0.003	<0.003
4/17/2017		0.0004 (J)	
5/15/2017		<0.003	
6/15/2017	0.0006 (J)	0.0006 (J)	0.0007 (J)
9/28/2017	<0.003	<0.003	<0.003
2/15/2018	<0.003	<0.003	<0.003
6/28/2018	<0.003	<0.003	<0.003
12/19/2018	<0.003	<0.003	
12/20/2018			<0.003
8/28/2019	0.00035 (J)	<0.003	
8/29/2019			<0.003
10/16/2019		<0.003	<0.003
12/3/2019	0.00049 (J)		
3/5/2020	<0.003	<0.003	<0.003
8/19/2020	<0.003	<0.003	<0.003
9/16/2020	<0.003	<0.003	
9/17/2020			<0.003
3/3/2021	<0.003	<0.003	
3/4/2021			<0.003
9/22/2021	<0.003		
9/23/2021		<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.005		0.0026 (J)
11/18/2016	<0.005		
11/21/2016			0.0034 (J)
2/23/2017	<0.005	<0.005	0.003 (J)
4/17/2017		<0.005	
5/15/2017		<0.005	
6/15/2017	0.0007 (J)	<0.005	0.005 (J)
9/28/2017	<0.005	<0.005	0.0046 (J)
2/15/2018	<0.005	<0.005	0.0016 (J)
6/28/2018	<0.005 (X)	<0.005 (X)	<0.005 (X)
12/19/2018	<0.005	<0.005	
12/20/2018			0.00098 (J)
8/28/2019	0.00045 (J)	0.00038 (J)	
8/29/2019			0.0013 (J)
10/16/2019		0.00078 (J)	0.0024 (J)
12/3/2019	0.001 (J)		
3/5/2020	<0.005	0.00044 (J)	0.0011 (J)
8/19/2020	<0.005	<0.005	0.0021 (J)
9/16/2020	<0.005	<0.005	
9/17/2020			0.0015 (J)
3/3/2021	<0.005	<0.005	
3/4/2021			0.0029 (J)
9/22/2021	<0.005		
9/23/2021		<0.005	0.002 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.0674		0.044
11/18/2016	0.0546		
11/21/2016			0.0428 (J)
2/23/2017	0.0489	0.0229	0.0338
4/17/2017		0.0227	
5/15/2017		0.0227	
6/15/2017	0.0415	0.0218	0.0239
9/28/2017	0.0397	0.0222	0.0247
2/15/2018	0.038	0.0243	0.0215
6/28/2018	0.035	0.023	0.018
12/19/2018	0.035	0.024	
12/20/2018			0.017
8/28/2019	0.034	0.027	
8/29/2019			0.016
10/16/2019		0.024	0.015
12/3/2019	0.031		
3/5/2020	0.033	0.025	0.016
8/19/2020	0.037	0.026	0.016
9/16/2020	0.03	0.024	
9/17/2020			0.014
3/3/2021	0.031	0.024	
3/4/2021			0.015
9/22/2021	0.028		
9/23/2021		0.027	0.014

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.0005		0.0079
9/23/2016			0.0096 (R)
11/18/2016	0.0001 (J)		
11/21/2016			0.0092
2/23/2017	0.0001 (J)	<0.0005	0.01
4/17/2017		<0.0005	
5/15/2017		<0.0005	
6/15/2017	9E-05 (J)	<0.0005	0.0104
9/28/2017	0.0001 (J)	<0.0005	0.0098
2/15/2018	<0.0005	<0.0005	0.011 (J)
6/28/2018	8.1E-05 (J)	<0.0005	0.0085
12/19/2018	<0.0005 (X)	<0.0005	
12/20/2018			0.0092
8/28/2019	0.00011 (J)	<0.0005	
8/29/2019			0.0088
10/16/2019		<0.0005	0.0079
10/17/2019	<0.0005		
12/3/2019	9.7E-05 (J)		
3/5/2020	9.2E-05 (J)	<0.0005	0.0082
8/19/2020	0.00011 (J)	<0.0005	0.0079
9/16/2020	8E-05 (J)	<0.0005	
9/17/2020			0.0073
3/3/2021	7.9E-05 (J)	<0.0005	
3/4/2021			0.0077
9/22/2021	8.4E-05 (J)		
9/23/2021		<0.0005	0.0071

Time Series

Constituent: Boron (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.725		1.73
11/18/2016	0.831		
11/21/2016			2.02
2/23/2017	0.949	<0.04	1.77
4/17/2017		<0.04	
5/15/2017		<0.04	
6/15/2017	0.961	<0.04	1.78
9/28/2017	0.948	<0.04	1.45
2/15/2018	1.11	<0.04	2.09
6/28/2018	0.89	<0.04 (X)	1.5
12/19/2018	1.1	<0.04	
12/20/2018			1.7
3/19/2019	1		
3/20/2019		0.004 (J)	1.5
10/16/2019		0.0055 (J)	1.5
10/17/2019	1.1		
12/3/2019	1		
3/5/2020	1.1	0.0076 (J)	1.6
9/16/2020	0.99	0.0062 (J)	
9/17/2020			1.4
3/3/2021	1	<0.04	
3/4/2021			1.5
9/22/2021	1.1		
9/23/2021		<0.04	1.4

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	8E-05 (J)		0.0004 (J)
11/18/2016	<0.0005		
11/21/2016			0.0005 (J)
2/23/2017	0.0001 (J)	<0.0005	0.0007 (J)
4/17/2017		<0.0005	
5/15/2017		<0.0005	
6/15/2017	<0.0005	<0.0005	0.0006 (J)
9/28/2017	<0.0005	<0.0005	0.0007 (J)
2/15/2018	<0.0005	<0.0005	0.00069 (J)
6/28/2018	<0.0005	<0.0005	0.00056 (J)
12/19/2018	<0.0005 (X)	<0.0005	
12/20/2018			<0.0005 (X)
8/28/2019	<0.0005	<0.0005	
8/29/2019			0.00053 (J)
10/16/2019		<0.0005	0.00057 (J)
10/17/2019	<0.0005		
12/3/2019	<0.0005		
3/5/2020	<0.0005	<0.0005	0.00059 (J)
8/19/2020	<0.0005	<0.0005	0.00056 (J)
9/16/2020	<0.0005	<0.0005	
9/17/2020			0.0005 (J)
3/3/2021	<0.0005	<0.0005	
3/4/2021			0.00042 (J)
9/22/2021	<0.0005		
9/23/2021		<0.0005	0.00048 (J)

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	50.6		45.9
11/18/2016	53.9		
11/21/2016			46.4
2/23/2017	51	3.26	43.5
4/17/2017		3.23	
5/15/2017		2.97 (B-01)	
6/15/2017	53.8	3.15	45.3
9/28/2017	51.8	3.26	45.1
2/15/2018	50.1	3.39	45.3
6/28/2018	51	3.1	45.9
12/19/2018	57.1	3.6	
12/20/2018			41.8
3/19/2019	49.5		
3/20/2019		3.3	38.2
10/16/2019		3.4	38.4
12/3/2019	47.8		
3/5/2020	51.7	3.7	39.8
9/16/2020	45.9	3.2	
9/17/2020			33.1
3/3/2021	53	3.6	
3/4/2021			41
9/22/2021	53.7		
9/23/2021		3.7	36.8

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	3.1		5.8
11/18/2016	3.95 (D)		
11/21/2016			5.05 (D)
2/23/2017	3.2	2.1	4.1
4/17/2017		1.8	
5/15/2017		1.8	
6/15/2017	4	1.9	4.8
9/28/2017	4.6	1.9	6.7
2/15/2018	5.4	2.3	8
6/28/2018	9 (J-X)	2.1 (J-X)	5.5 (J-X)
12/19/2018	6.2 (J-X)	1.9 (J-X)	
12/20/2018			8 (J-X)
3/19/2019	7.1		
3/20/2019		2.3	6.6
10/16/2019		2.3	6.4
12/3/2019	7.7		
3/5/2020	7.6	1.8	5.8
9/16/2020	7.9	1.8	
9/17/2020			6.1
3/3/2021	8.1	1.9	
3/4/2021			5.6
9/22/2021	7.1		
9/23/2021		1.9	6

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.0073 (J)		0.0014 (J)
11/18/2016	0.008 (J)		
11/21/2016			0.003 (J)
2/23/2017	0.0086 (J)	0.001 (J)	0.0028 (J)
4/17/2017		0.0018 (J)	
5/15/2017		0.0014 (J)	
6/15/2017	0.0082 (J)	0.0013 (J)	0.0038 (J)
9/28/2017	0.0083 (J)	0.0014 (J)	0.0037 (J)
2/15/2018	0.0086 (J)	<0.005	0.0044 (J)
6/28/2018	0.0076 (J)	<0.005	0.0041 (J)
12/19/2018	0.0085 (J)	<0.005	
12/20/2018			0.0041 (J)
8/28/2019	0.0078 (J)	0.0017 (J)	
8/29/2019			0.0044 (J)
10/16/2019		0.0014 (J)	0.0038 (J)
12/3/2019	0.007 (J)		
3/5/2020	0.0087 (J)	0.0016 (J)	0.0038 (J)
8/19/2020	0.0094 (J)	0.0017 (J)	0.0043 (J)
9/16/2020	0.0064 (J)	0.0018 (J)	
9/17/2020			0.0042 (J)
3/3/2021	0.0067	0.0014 (J)	
3/4/2021			0.004 (J)
9/22/2021	0.0065		
9/23/2021		0.0016 (J)	0.004 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.005		0.236
11/18/2016	<0.005		
11/21/2016			0.298
2/23/2017	<0.005	<0.005	0.277
4/17/2017		<0.005	
5/15/2017		<0.005	
6/15/2017	<0.005	<0.005	0.262
9/28/2017	<0.005	<0.005	0.279
2/15/2018	<0.005	<0.005	0.279
6/28/2018	<0.005	<0.005	0.23
12/19/2018	<0.005	<0.005	
12/20/2018			0.25
8/28/2019	<0.005	<0.005	
8/29/2019			0.21
10/16/2019		<0.005	0.21
10/17/2019	<0.005		
12/3/2019	<0.005		
3/5/2020	<0.005	<0.005	0.22
8/19/2020	<0.005	<0.005	0.22
9/16/2020	<0.005	<0.005	
9/17/2020			0.2
3/3/2021	<0.005	<0.005	
3/4/2021			0.2
9/22/2021	<0.005		
9/23/2021		<0.005	0.17

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.638 (U)		0.816 (U)
11/18/2016	1.22 (U)		
11/21/2016			2.94
2/23/2017	0.554 (U)	0.567 (U)	1.92
4/17/2017		0.335 (U)	
5/15/2017		0.261 (U)	
6/15/2017	0.77 (U)	0.188 (U)	3.6
9/28/2017	1.07 (U)	0.627 (U)	3.3
2/15/2018	0.751 (U)	0.869 (U)	2.31 (J+X)
6/28/2018	0.392 (U)	0.336 (U)	1.75 (UX)
12/19/2018	0.693 (U)	0.454 (U)	
12/20/2018			2.8 (J+X)
8/28/2019	0.866 (U)	0.809 (U)	
8/29/2019			3.68
10/16/2019		0.815 (U)	2.66
12/18/2019	1.91		
3/5/2020	1.3	0.791 (U)	2.21
8/19/2020	1.4	0.582 (U)	3.17
9/16/2020	1.17 (U)	0.844 (U)	
9/17/2020			2.92
3/3/2021	0.307 (U)	1.12	
3/4/2021			1.99
9/22/2021	0.808 (U)		
9/23/2021		0.078 (U)	1.4

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.18 (J)		0.66
11/18/2016	0.03 (J)		
11/21/2016			0.9 (D)
2/23/2017	0.07 (J)	0.1 (J)	0.75
4/17/2017		0.08 (J)	
5/15/2017		0.02 (J)	
6/15/2017	0.01 (J)	0.03 (J)	0.77
9/28/2017	<0.1	<0.1	0.8
2/15/2018	<0.1	<0.1	0.82
6/28/2018	0.51 (J+X)	<0.1	1.5 (J+X)
12/19/2018	<0.1	0.094 (J)	
12/20/2018			0.68
3/19/2019	<0.1		
3/20/2019		0.062 (J)	0.95
8/28/2019	<0.1	<0.1	
8/29/2019			0.9
10/16/2019		0.059 (J)	0.61
12/3/2019	0.15 (J)		
3/5/2020	<0.1	0.05 (J)	0.92
8/19/2020	0.051 (J)	0.055 (J)	0.95
9/16/2020	<0.1	<0.1	
9/17/2020			0.68
3/3/2021	<0.1	<0.1	
3/4/2021			0.83
9/22/2021	0.054 (J)		
9/23/2021		<0.1	0.85

Time Series

Constituent: Lead (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.001		0.0004 (J)
11/18/2016	<0.001		
11/21/2016			0.0005 (J)
2/23/2017	<0.001	<0.001	0.0005 (J)
4/17/2017		0.0001 (J)	
5/15/2017		<0.001	
6/15/2017	<0.001	<0.001	0.0004 (J)
9/28/2017	<0.001	0.0001 (J)	0.0004 (J)
2/15/2018	<0.001	<0.001	0.00047 (J)
6/28/2018	<0.001	<0.001	0.00036 (J)
12/19/2018	<0.001	<0.001	
12/20/2018			0.00039 (J)
8/28/2019	<0.001	<0.001	
8/29/2019			0.00035 (J)
10/16/2019		<0.001	0.00035 (J)
12/3/2019	<0.001		
3/5/2020	<0.001	<0.001	0.00041 (J)
8/19/2020	4.7E-05 (J)	<0.001	0.00031 (J)
9/16/2020	<0.001	<0.001	
9/17/2020			0.00032 (J)
3/3/2021	<0.001	<0.001	
3/4/2021			0.00034 (J)
9/22/2021	<0.001		
9/23/2021		<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.0024 (J)		0.0193 (J)
11/18/2016	0.0026 (J)		
11/21/2016			0.0223 (J)
2/23/2017	0.0026 (J)	<0.03	0.0229 (J)
4/17/2017		<0.03	
5/15/2017		<0.03	
6/15/2017	0.0026 (J)	<0.03	0.0227 (J)
9/28/2017	0.0025 (J)	<0.03	0.023 (J)
2/15/2018	<0.03	<0.03	0.0254 (J)
6/28/2018	0.0022 (J)	<0.03	0.021 (J)
12/19/2018	0.0026 (J)	<0.03	
12/20/2018			0.022 (J)
8/28/2019	0.0025 (J)	<0.03	
8/29/2019			0.021 (J)
10/16/2019		<0.03	0.02 (J)
12/3/2019	0.0024 (J)		
3/5/2020	0.0025 (J)	<0.03	0.021 (J)
8/19/2020	0.0024 (J)	<0.03	0.021 (J)
9/16/2020	0.0022 (J)	<0.03	
9/17/2020			0.02 (J)
3/3/2021	0.0024 (J)	<0.03	
3/4/2021			0.021 (J)
9/22/2021	0.0026 (J)		
9/23/2021		<0.03	0.019 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.0002		7E-05 (J)
11/18/2016	<0.0002		
11/21/2016			0.00012 (J)
2/23/2017	<0.0002	<0.0002	7E-05 (J)
4/17/2017		<0.0002	
5/15/2017		<0.0002	
6/15/2017	7E-05 (J)	6E-05 (J)	0.00016 (J)
9/28/2017	<0.0002	<0.0002	0.00011 (J)
2/15/2018	<0.0002	<0.0002	0.00015 (J)
6/28/2018	<0.0002	<0.0002	<0.0002 (X)
12/19/2018	<0.0002	<0.0002	
12/20/2018			0.00017 (J)
8/28/2019	<0.0002	<0.0002	
8/29/2019			0.00018 (J)
8/19/2020	0.00013 (J)	0.00014 (J)	0.00018 (J)
9/16/2020	<0.0002	<0.0002	
9/17/2020			0.00011 (J)
3/3/2021	<0.0002	<0.0002	
3/4/2021			8.5E-05 (J)
9/22/2021	0.0001 (J)		
9/23/2021		0.00011 (J)	0.00022

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.01		<0.01
11/18/2016	<0.01		
11/21/2016			<0.01
2/23/2017	<0.01	<0.01	<0.01
4/17/2017		<0.01	
5/15/2017		<0.01	
6/15/2017	<0.01	<0.01	<0.01
9/28/2017	<0.01	<0.01	<0.01
2/15/2018	<0.01	<0.01	<0.01
6/28/2018	<0.01	<0.01	<0.01
12/19/2018	<0.01	<0.01	
12/20/2018			<0.01
8/28/2019	<0.01	<0.01	
8/29/2019			<0.01
10/16/2019		<0.01	<0.01
12/3/2019	<0.01		
3/5/2020	<0.01	<0.01	<0.01
8/19/2020	<0.01	<0.01	<0.01
9/16/2020	<0.01	<0.01	
9/17/2020			<0.01
3/3/2021	<0.01	<0.01	
3/4/2021			<0.01
9/22/2021	<0.01		
9/23/2021		<0.01	<0.01

Time Series

Constituent: pH, Field (S.U.) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	5.59		5.43
9/23/2016			5.46
11/18/2016	5.51		
11/21/2016			4.84
2/23/2017	5.65	5.57	4.73
9/28/2017	5.62	5.76	4.37
2/15/2018	5.66	5.95	4.3
6/28/2018	5.57	5.78	4.16
12/19/2018	5.76	6.07	
12/20/2018			4.21
3/19/2019	5.72		
3/20/2019		5.93	4.34
8/28/2019	5.52	5.8	
8/29/2019			4.01
10/16/2019		5.81	4.21
10/17/2019	5.61		
3/5/2020	5.39	5.53	4.01
8/19/2020	5.53	5.66	4.12
9/16/2020	5.58	5.84	
9/17/2020			4.17
3/3/2021	5.86	5.87	
3/4/2021			4.19
9/22/2021	5.53		
9/23/2021		5.85	4.05

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	0.0079 (J)		0.0311
11/18/2016	0.0082 (J)		
11/21/2016			0.0409
2/23/2017	0.0061 (J)	<0.005	0.0354
4/17/2017		<0.005	
5/15/2017		<0.005	
6/15/2017	0.0046 (J)	<0.005	0.0511
9/28/2017	0.0042 (J)	<0.005	0.0484
2/15/2018	0.0045 (J)	<0.005	0.0435
6/28/2018	0.0033 (J)	<0.005	0.037
12/19/2018	0.0042 (J)	<0.005	
12/20/2018			0.037
8/28/2019	0.0041 (J)	<0.005	
8/29/2019			0.036
10/16/2019		<0.005	0.033
12/3/2019	0.0035 (J)		
3/5/2020	0.0034 (J)	<0.005	0.032
8/19/2020	0.002 (J)	<0.005	0.041
9/16/2020	0.0031 (J)	<0.005	
9/17/2020			0.029
3/3/2021	0.0024 (J)	<0.005	
3/4/2021			0.039
9/22/2021	0.0032 (J)		
9/23/2021		<0.005	0.031

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	300		440
11/18/2016	245 (D)		
11/21/2016			490 (D)
2/23/2017	330	0.55 (J)	470
4/17/2017		0.44 (J)	
5/15/2017		0.45 (J)	
6/15/2017	310	0.46 (J)	490
9/28/2017	290	0.49 (J)	470
2/15/2018	292	1.9 (o)	432
6/28/2018	284	0.24 (J)	453
12/19/2018	319	0.4 (J)	
12/20/2018			463
3/19/2019	307		
3/20/2019		<1 (X)	405
10/16/2019		0.29 (J)	432
12/3/2019	256		
3/5/2020	262	<1	370
9/16/2020	256	<1	
9/17/2020			356
3/3/2021	252	<1	
3/4/2021			325
9/22/2021	234		
9/23/2021		<1	318

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	<0.001		<0.001
11/18/2016	<0.001		
11/21/2016			0.0004 (J)
2/23/2017	<0.001	<0.001	0.0003 (J)
4/17/2017		<0.001	
5/15/2017		<0.001	
6/15/2017	<0.001	<0.001	0.0003 (J)
9/28/2017	<0.001	<0.001	0.0003 (J)
2/15/2018	<0.001	<0.001	0.00026 (J)
6/28/2018	<0.001	<0.001	0.00018 (J)
12/19/2018	<0.001	<0.001	
12/20/2018			<0.001 (X)
8/28/2019	<0.001	<0.001	
8/29/2019			0.00021 (J)
10/16/2019		<0.001	0.0002 (J)
12/3/2019	<0.001		
3/5/2020	<0.001	<0.001	0.0002 (J)
8/19/2020	<0.001	<0.001	0.00019 (J)
9/16/2020	<0.001	<0.001	
9/17/2020			0.00017 (J)
3/3/2021	<0.001	<0.001	
3/4/2021			<0.001
9/22/2021	<0.001		
9/23/2021		<0.001	0.00022 (J)

Time Series

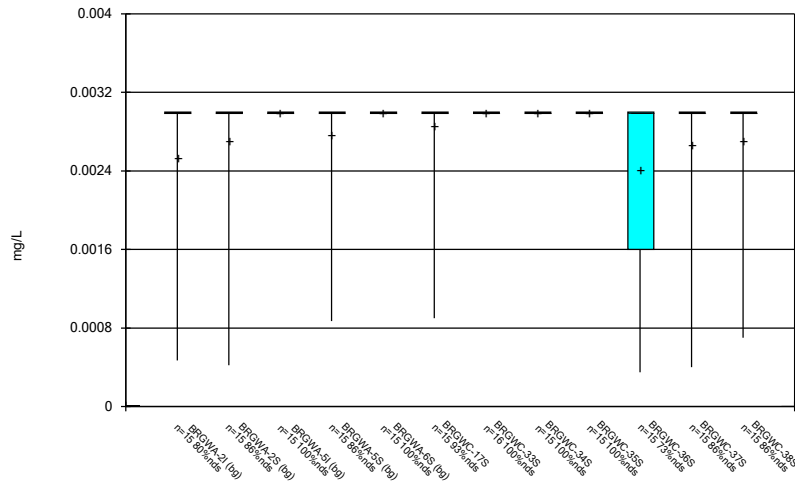
Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/28/2021 7:39 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-37S	BRGWC-38S
9/7/2016	528		750
11/18/2016	524		
11/21/2016			795
2/23/2017	517	45	733
4/17/2017		53	
5/15/2017		48	
6/15/2017	566	63	812
9/28/2017	475	39	690
2/15/2018	513	54	722
6/28/2018	499	59 (X)	704
12/19/2018	521	68	
12/20/2018			642
3/19/2019	498		
3/20/2019		68 (X)	615
10/16/2019		49	630
12/3/2019	498		
3/5/2020	457	39	608
9/16/2020	463	31	
9/17/2020			587
3/3/2021	442	33	
3/4/2021			540
9/22/2021	457		
9/23/2021		49	528

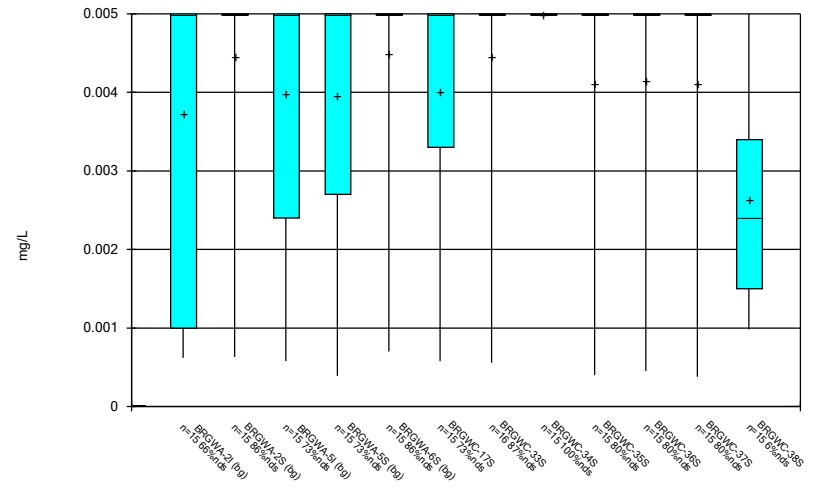
FIGURE B.

Box & Whiskers Plot



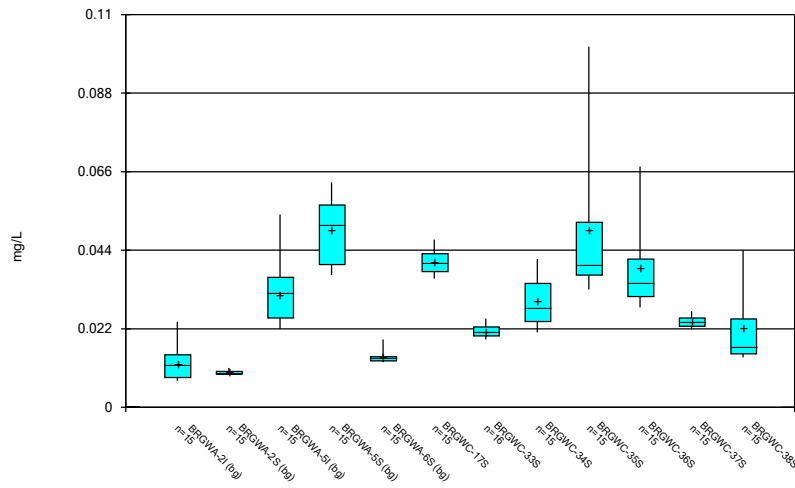
Constituent: Antimony Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



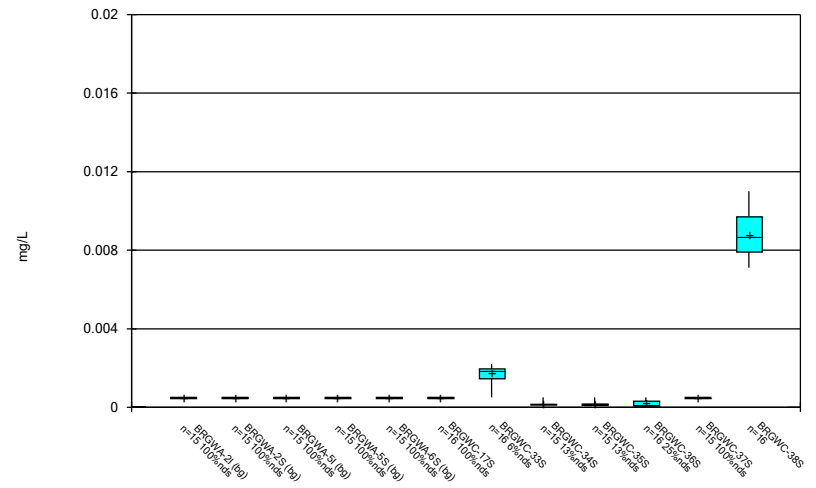
Constituent: Arsenic Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



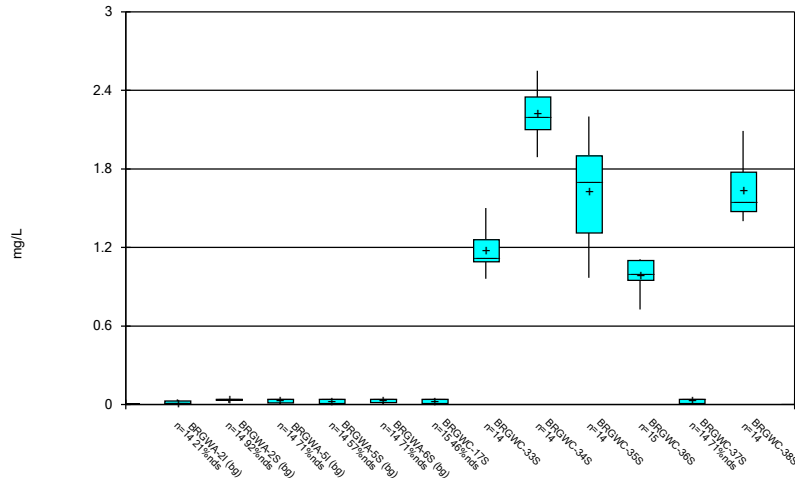
Constituent: Barium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



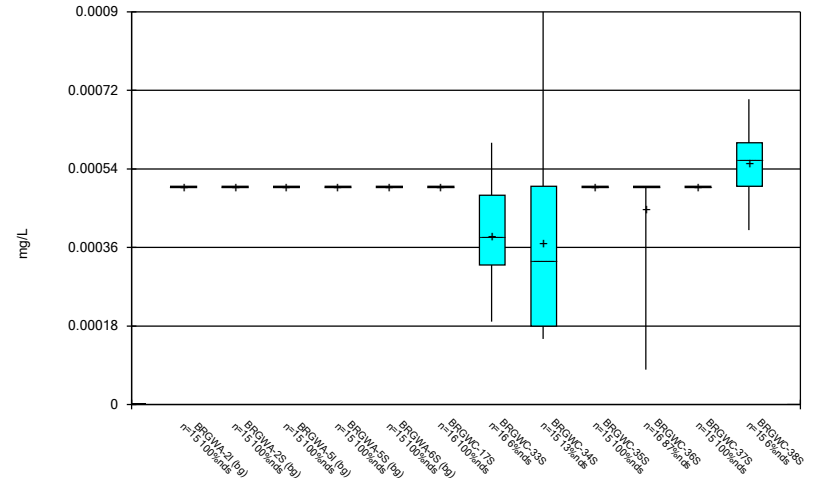
Constituent: Beryllium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



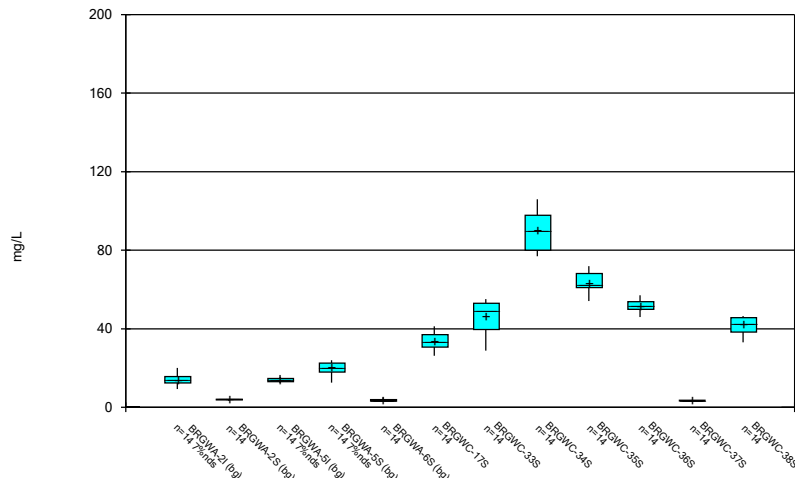
Constituent: Boron Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



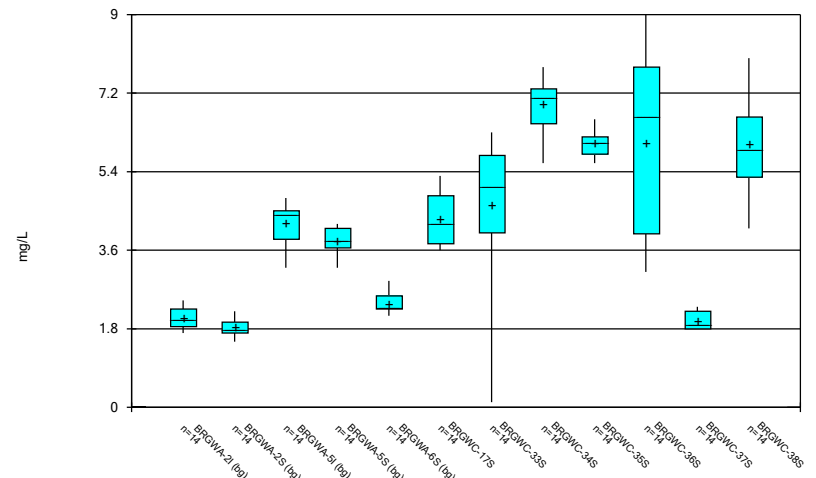
Constituent: Cadmium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



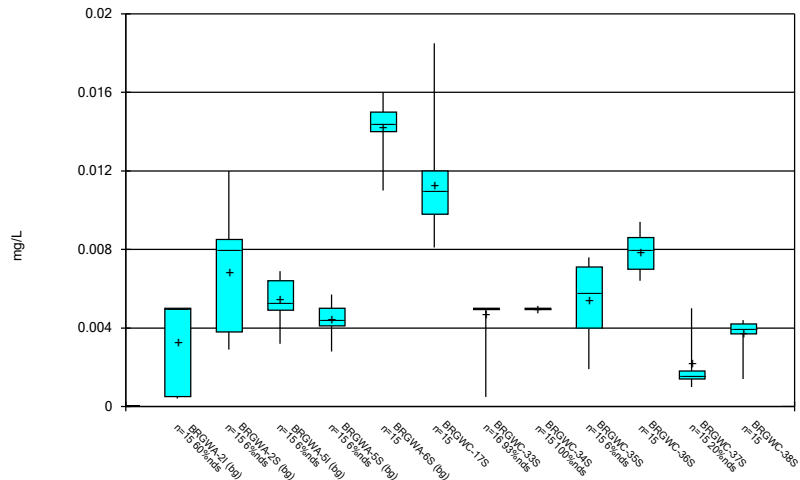
Constituent: Calcium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



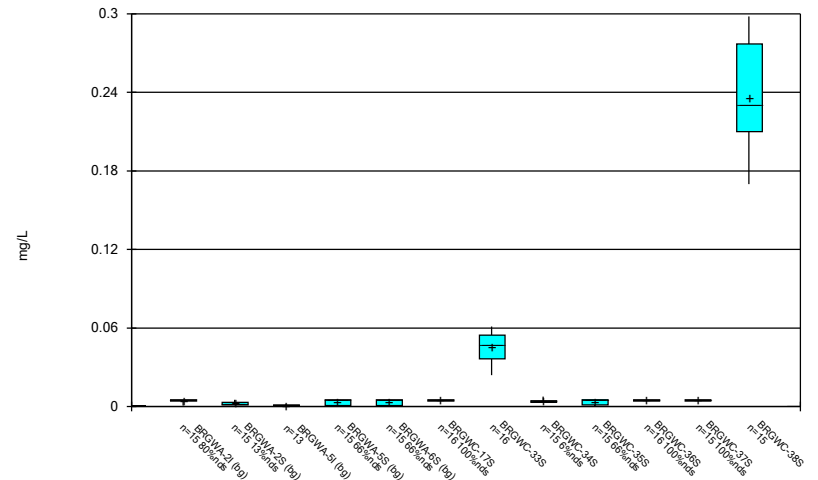
Constituent: Chloride Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



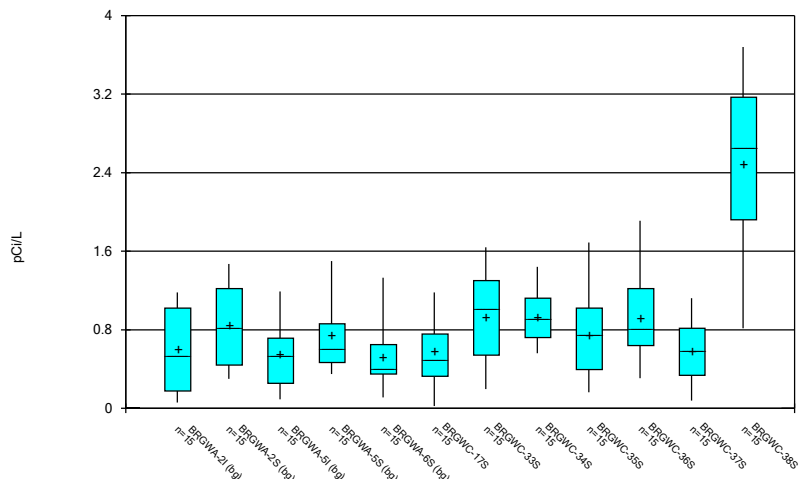
Constituent: Chromium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



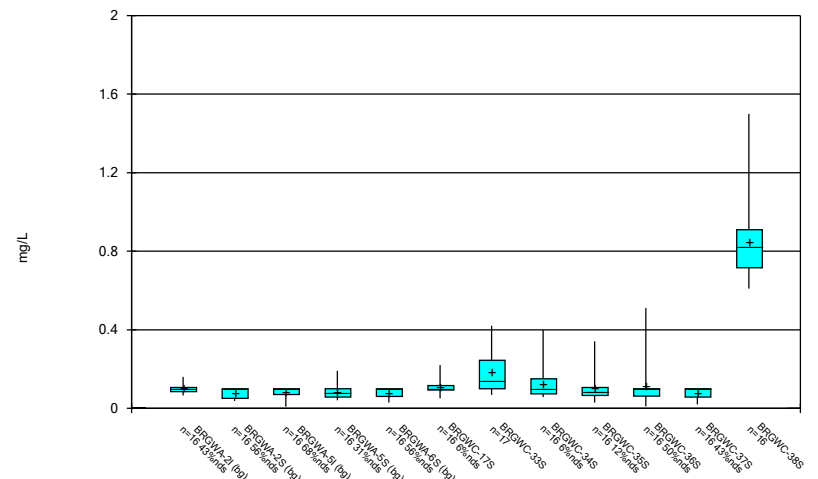
Constituent: Cobalt Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



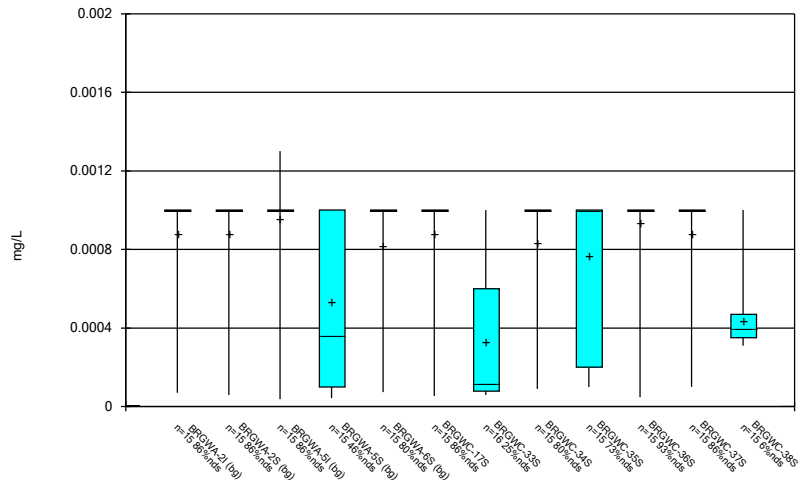
Constituent: Combined Radium 226 + 228 Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



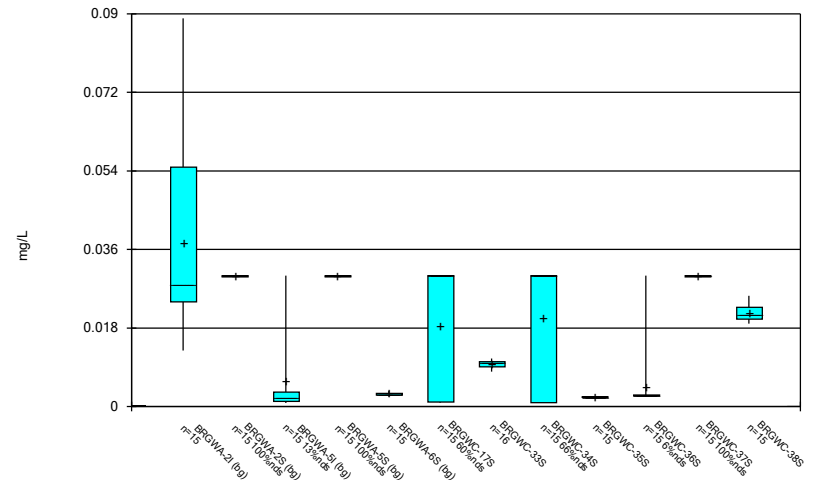
Constituent: Fluoride Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



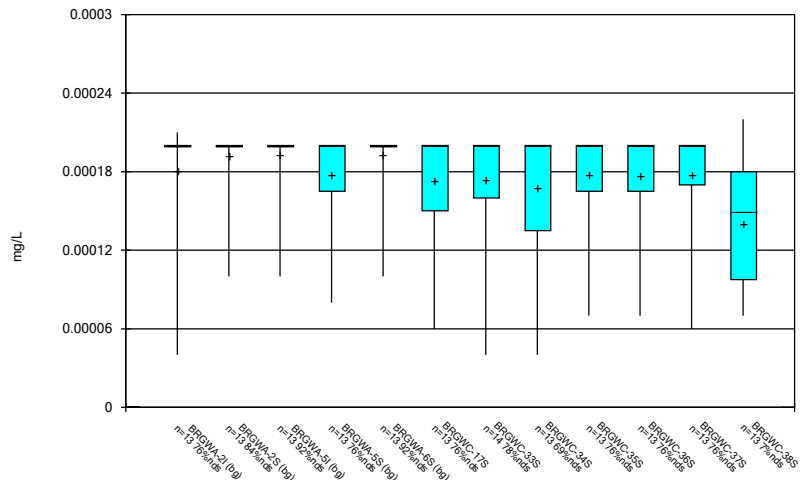
Constituent: Lead Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



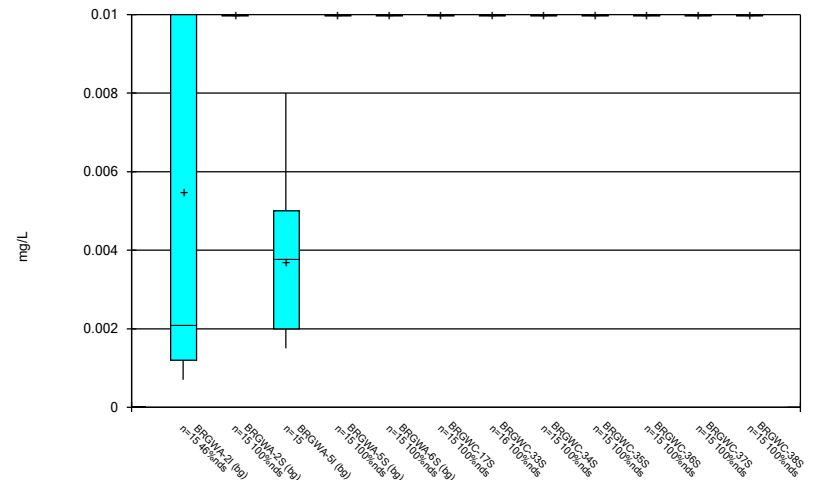
Constituent: Lithium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



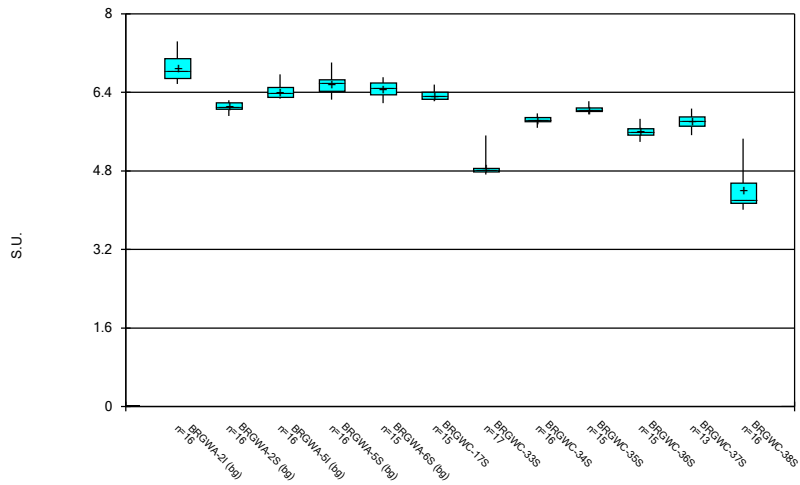
Constituent: Mercury Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



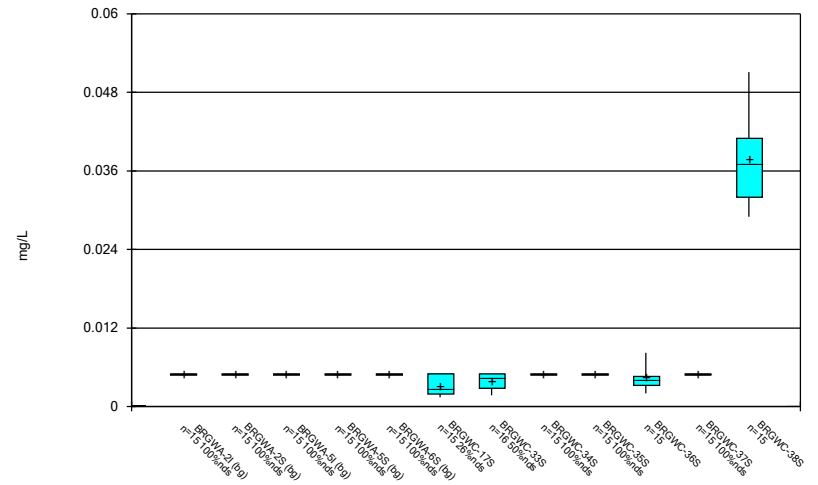
Constituent: Molybdenum Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



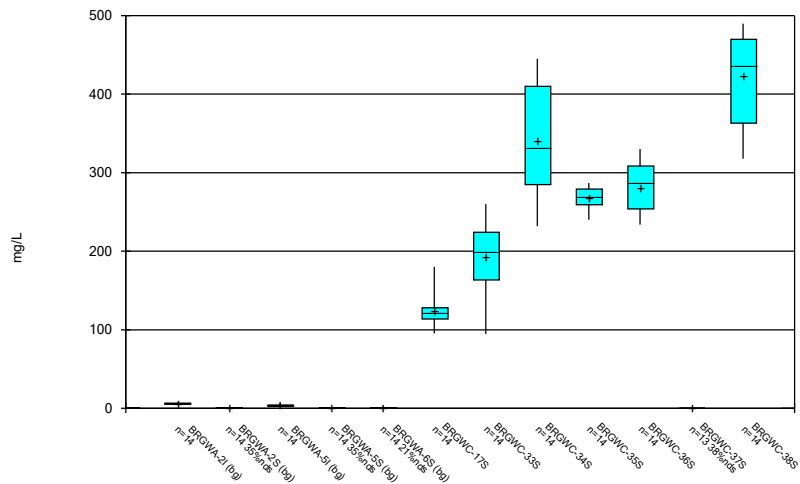
Constituent: pH, Field Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



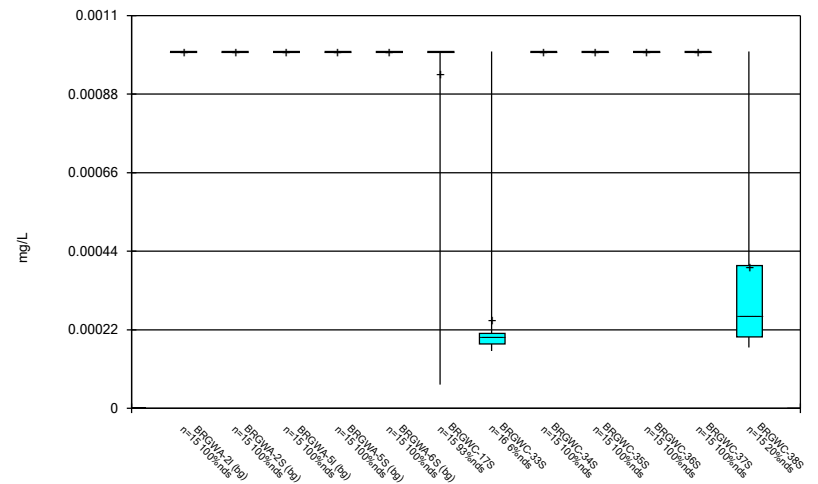
Constituent: Selenium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



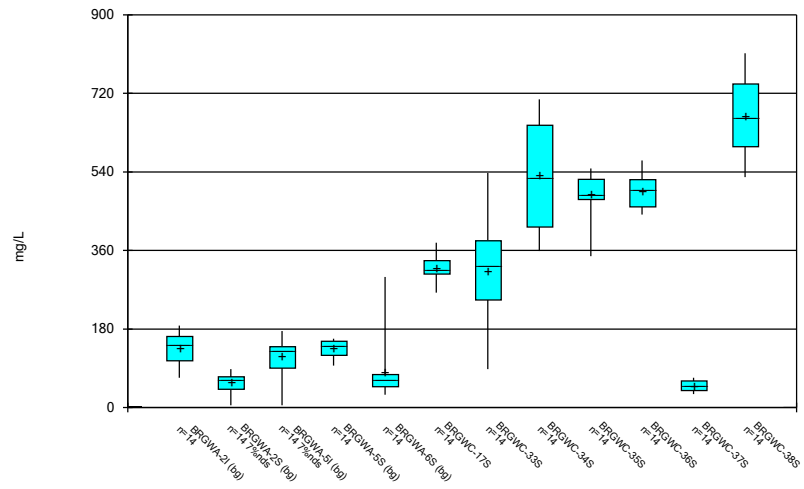
Constituent: Sulfate Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:40 AM View: Descriptive Pond E
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, 11:58 AM

BRGWA-5I Cobalt (mg/L)
BRGWC-37S Sulfate (mg/L)

11/16/2016	<0.01 (o)	
2/13/2018	<0.01 (o)	
2/15/2018		1.9 (o)

FIGURE D.

Interwell Prediction Limit - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 7:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method	
Boron (mg/L)	BRGWC-33S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/22/2021	2.2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/23/2021	2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/23/2021	1.4	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/22/2021	36.4	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/22/2021	28.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/22/2021	76.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/23/2021	70.5	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/22/2021	53.7	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/23/2021	36.8	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	9/22/2021	5.6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	9/23/2021	6.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	9/22/2021	7.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	9/23/2021	6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	9/23/2021	0.85	Yes	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.076	5.912	9/22/2021	4.81	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.076	5.912	9/22/2021	5.53	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.076	5.912	9/23/2021	5.85	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.076	5.912	9/23/2021	4.05	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	9/22/2021	123	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	9/22/2021	94.6	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	9/22/2021	232	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	9/23/2021	258	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	9/22/2021	234	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	9/23/2021	318	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	9/22/2021	323	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	9/22/2021	406	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	9/23/2021	511	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	9/22/2021	457	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	9/23/2021	528	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2

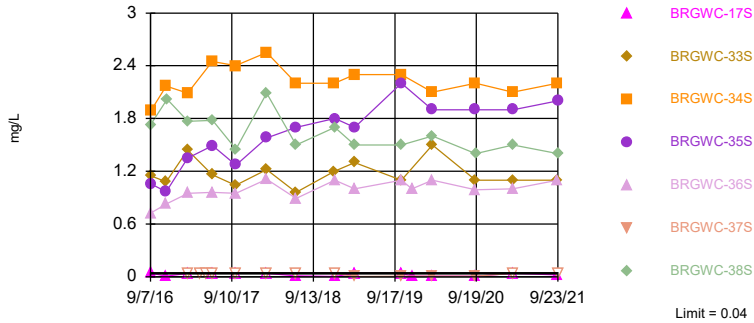
Interwell Prediction Limit - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 7:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.04	n/a	9/22/2021	0.02J	No	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-33S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/22/2021	2.2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/23/2021	2	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/22/2021	1.1	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.04	n/a	9/23/2021	0.04ND	No	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/23/2021	1.4	Yes	70	n/a	n/a	62.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/22/2021	36.4	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/22/2021	28.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/22/2021	76.9	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/23/2021	70.5	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/22/2021	53.7	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	9/23/2021	3.7	No	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/23/2021	36.8	Yes	70	n/a	n/a	4.286	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-17S	4.8	n/a	9/22/2021	4.6	No	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-33S	4.8	n/a	9/22/2021	2.7	No	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-34S	4.8	n/a	9/22/2021	5.6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-35S	4.8	n/a	9/23/2021	6.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-36S	4.8	n/a	9/22/2021	7.1	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-37S	4.8	n/a	9/23/2021	1.9	No	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Chloride (mg/L)	BRGWC-38S	4.8	n/a	9/23/2021	6	Yes	70	n/a	n/a	0	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.19	n/a	9/22/2021	0.1	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.19	n/a	9/22/2021	0.068J	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.19	n/a	9/22/2021	0.1	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.19	n/a	9/23/2021	0.073J	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.19	n/a	9/22/2021	0.054J	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-37S	0.19	n/a	9/23/2021	0.1ND	No	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.19	n/a	9/23/2021	0.85	Yes	80	n/a	n/a	51.25	n/a	n/a	0.0002983	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	BRGWC-17S	7.076	5.912	9/22/2021	6.22	No	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-33S	7.076	5.912	9/22/2021	4.81	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-34S	7.076	5.912	9/22/2021	5.93	No	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-35S	7.076	5.912	9/23/2021	6.08	No	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-36S	7.076	5.912	9/22/2021	5.53	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-37S	7.076	5.912	9/23/2021	5.85	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U.)	BRGWC-38S	7.076	5.912	9/23/2021	4.05	Yes	79	6.494	0.3069	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate (mg/L)	BRGWC-17S	7.5	n/a	9/22/2021	123	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-33S	7.5	n/a	9/22/2021	94.6	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-34S	7.5	n/a	9/22/2021	232	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-35S	7.5	n/a	9/23/2021	258	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-36S	7.5	n/a	9/22/2021	234	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-37S	7.5	n/a	9/23/2021	0.5ND	No	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BRGWC-38S	7.5	n/a	9/23/2021	318	Yes	70	n/a	n/a	18.57	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-17S	299	n/a	9/22/2021	323	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-33S	299	n/a	9/22/2021	190	No	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-34S	299	n/a	9/22/2021	406	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-35S	299	n/a	9/23/2021	511	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-36S	299	n/a	9/22/2021	457	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-37S	299	n/a	9/23/2021	49	No	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BRGWC-38S	299	n/a	9/23/2021	528	Yes	70	n/a	n/a	2.857	n/a	n/a	0.0003866	NP Inter (normality) 1 of 2

Exceeds Limit: BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

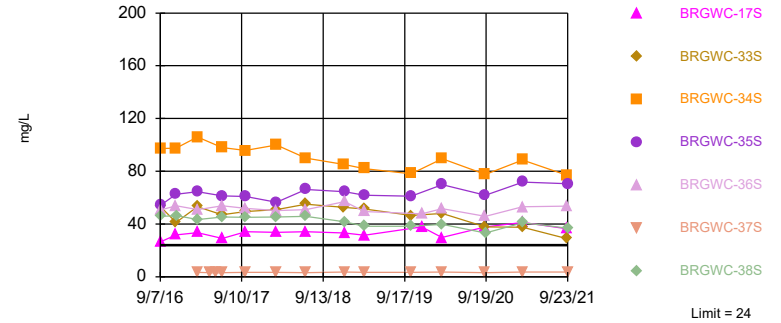


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 62.86% NDs. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 11/28/2021 7:46 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

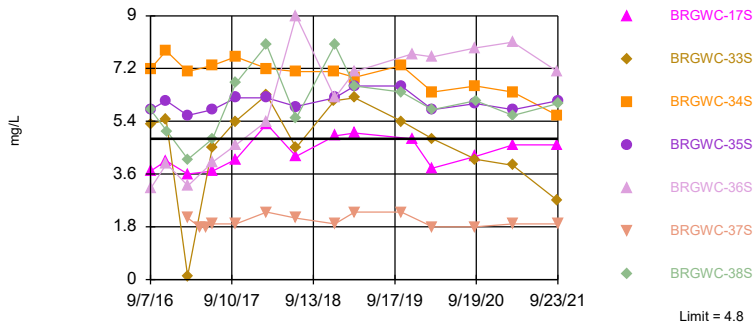


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 4.286% NDs. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 11/28/2021 7:46 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

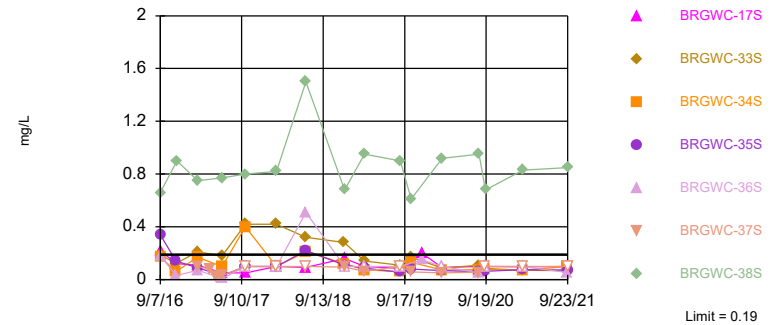


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 11/28/2021 7:46 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-38S

Prediction Limit
Interwell Non-parametric

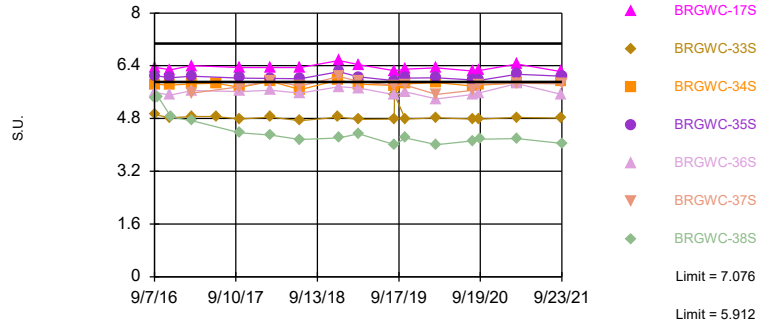


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 80 background values. 51.25% NDs. Annual per-constituent alpha = 0.004169. Individual comparison alpha = 0.0002983 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 11/28/2021 7:46 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limits: BRGWC-33S, BRGWC-36S, BRGWC-37S, BRGWC-38S

Prediction Limit
Interwell Parametric

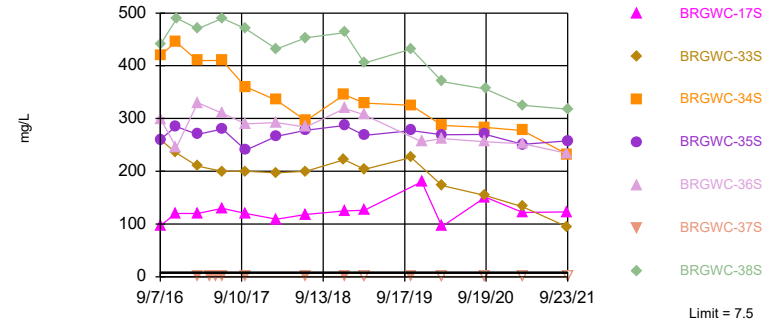


Background Data Summary: Mean=6.494, Std. Dev.=0.3069, n=79. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9661, critical = 0.957. Kappa = 1.897 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005373. Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 11/28/2021 7:46 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric

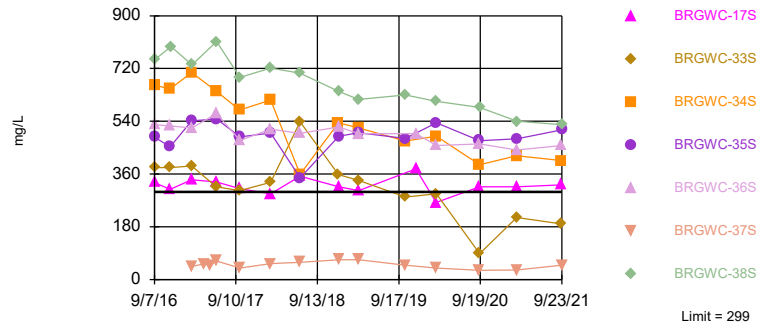


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 18.57% NDs. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 11/28/2021 7:47 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. 2.857% NDs. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:47 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/28/2021 7:50 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-33S	BRGWC-35S
8/31/2016	0.0072 (J)	<0.04	<0.04	<0.04					
9/1/2016					<0.04				
9/7/2016						1.73	0.0449 (J)	1.15	1.06
9/8/2016									
11/15/2016		0.0085 (J)			0.0123 (J)				
11/16/2016	0.0117 (J)		0.0187 (J)	0.0109 (J)					
11/17/2016							0.0067 (J)	1.08	0.967
11/18/2016									
11/21/2016						2.02			
2/20/2017		0.0093 (J)	0.0066 (J)		0.0157 (J)				
2/21/2017	0.0088 (J)			<0.04					
2/22/2017							<0.04	1.44	1.35
2/23/2017						1.77			
4/17/2017									
5/15/2017									
6/12/2017	0.0133 (J)	<0.04	<0.04		<0.04				
6/13/2017				<0.04					
6/14/2017								1.16	
6/15/2017						1.78	<0.04		1.49
9/26/2017	0.0093 (J)	<0.04	<0.04	<0.04	<0.04				
9/27/2017								1.04	
9/28/2017						1.45	<0.04		1.27
2/13/2018	0.0141 (J)	<0.04	<0.04	<0.04	<0.04				
2/15/2018						2.09	<0.04	1.22	1.58
6/26/2018	0.012 (J)	0.0056 (J)	0.0042 (J)	<0.04	0.0041 (J)				
6/27/2018							0.0088 (J+X)	0.96 (J+X)	1.7 (J+X)
6/28/2018						1.5			
12/18/2018	0.0086 (J)	0.0062 (J)	<0.04	<0.04	<0.04			1.2	
12/19/2018							0.0045 (J)		1.8
12/20/2018						1.7			
3/19/2019	0.00565 (JD)	<0.04	<0.04	<0.04	<0.04		<0.04		
3/20/2019						1.5		1.3	1.7
10/15/2019	0.0067 (J)	0.006 (J)	<0.04	<0.04	0.01 (J)				
10/16/2019						1.5		1.1	2.2
10/17/2019							<0.04		
12/3/2019							0.0063 (J)		
3/3/2020	0.0082 (J)	<0.04	<0.04	<0.04	<0.04		0.0075 (J)		
3/5/2020						1.6		1.5	1.9
9/15/2020	<0.04	<0.04	<0.04	<0.04	<0.04				
9/16/2020							0.0066 (J)	1.1	1.9
9/17/2020						1.4			
3/1/2021	<0.04				<0.04				
3/2/2021		0.0071 (J)	0.0053 (J)	<0.04					
3/3/2021								1.1	
3/4/2021						1.5	<0.04		1.9
9/21/2021		<0.04	<0.04						
9/22/2021	<0.04			<0.04	<0.04		0.02 (J)	1.1	
9/23/2021						1.4			2

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/28/2021 7:50 AM View: PLs Interwell Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	0.725		
9/8/2016		1.89	
11/15/2016			
11/16/2016			
11/17/2016		2.17	
11/18/2016	0.831		
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017		2.09	
2/23/2017	0.949		<0.04
4/17/2017			<0.04
5/15/2017			<0.04
6/12/2017			
6/13/2017			
6/14/2017		2.45	
6/15/2017	0.961		<0.04
9/26/2017			
9/27/2017		2.4	
9/28/2017	0.948		<0.04
2/13/2018			
2/15/2018	1.11	2.55	<0.04
6/26/2018			
6/27/2018		2.2 (J+X)	
6/28/2018	0.89		<0.04 (X)
12/18/2018		2.2	
12/19/2018	1.1		<0.04
12/20/2018			
3/19/2019	1		
3/20/2019		2.3	0.004 (J)
10/15/2019			
10/16/2019		2.3	0.0055 (J)
10/17/2019	1.1		
12/3/2019	1		
3/3/2020			
3/5/2020	1.1	2.1	0.0076 (J)
9/15/2020			
9/16/2020	0.99	2.2	0.0062 (J)
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	1	2.1	<0.04
3/4/2021			
9/21/2021			
9/22/2021	1.1	2.2	
9/23/2021			<0.04

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/28/2021 7:50 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-33S	BRGWC-35S
8/31/2016	12.6	19.6	13.5	4.09					
9/1/2016					3.3				
9/7/2016						45.9	26.3	53.4	54.1
9/8/2016									
11/15/2016		21.7			3.44				
11/16/2016	12.1		14.9	4.25					
11/17/2016							31.8	41.3	62.6
11/18/2016									
11/21/2016						46.4			
2/20/2017		21.1	13.9		3.52				
2/21/2017	11.4			4.02					
2/22/2017							33.5	53.1	64.6
2/23/2017						43.5			
4/17/2017									
5/15/2017									
6/12/2017	9.34	21.5	13.7		3.11				
6/13/2017				3.84					
6/14/2017								47.1	
6/15/2017						45.3	29		61.3
9/26/2017	14.3	24	14.4	3.31	3.15				
9/27/2017								49.5	
9/28/2017						45.1	34.1		60.8
2/13/2018	<25	<25	<25	3.94	3.65				
2/15/2018						45.3	33.8	50.9	56.6
6/26/2018	16 (J)	23.5 (J)	13.5 (J)	3.6	3.3				
6/27/2018							34.1	55.1	66.2
6/28/2018						45.9			
12/18/2018	14.5 (J)	19.8 (J)	16.4 (J)	3.8	3.5			52.7	
12/19/2018							33.1		64.4
12/20/2018						41.8			
3/19/2019	14.3 (JD)	21.4 (J)	12.3 (J)	3.9	3.6		31.6		
3/20/2019						38.2		51.4	61.8
10/15/2019	15.1	20	14.4	3.7	3.5				
10/16/2019						38.4		46.5	61.2
12/3/2019							37.7		
3/3/2020	20	23.2	14.9	4	5		29.7		
3/5/2020						39.8		48.1	69.9
9/15/2020	14.1	16.8	12.7	3.9	3.7				
9/16/2020							37.9	37.9	61.8
9/17/2020						33.1			
3/1/2021	15.4				4.2				
3/2/2021		16.8	13.2	4					
3/3/2021								37.5	
3/4/2021						41	41.2		71.8
9/21/2021		19.1	14.1						
9/22/2021	15.9			4.3	4.1		36.4	28.9	
9/23/2021						36.8			70.5

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/28/2021 7:50 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	50.6		
9/8/2016		97.3	
11/15/2016			
11/16/2016			
11/17/2016		97.6	
11/18/2016	53.9		
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017		106	
2/23/2017	51		3.26
4/17/2017			3.23
5/15/2017			2.97 (B-01)
6/12/2017			
6/13/2017			
6/14/2017		98	
6/15/2017	53.8		3.15
9/26/2017			
9/27/2017		95.8	
9/28/2017	51.8		3.26
2/13/2018			
2/15/2018	50.1	100	3.39
6/26/2018			
6/27/2018		90.1	
6/28/2018	51		3.1
12/18/2018		85.1	
12/19/2018	57.1		3.6
12/20/2018			
3/19/2019	49.5		
3/20/2019		82	3.3
10/15/2019			
10/16/2019		78.2	3.4
12/3/2019	47.8		
3/3/2020			
3/5/2020	51.7	89.6	3.7
9/15/2020			
9/16/2020	45.9	77.7	3.2
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	53	88.6	3.6
3/4/2021			
9/21/2021			
9/22/2021	53.7	76.9	
9/23/2021			3.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-33S	BRGWC-35S
8/31/2016	2.3	3.6	4.4	2					
9/1/2016					2.5				
9/7/2016						5.8	3.7	5.3	5.8
9/8/2016									
11/15/2016		4			2.3				
11/16/2016	2		4.4	1.8					
11/17/2016							4.05 (D)	5.45 (D)	6.1 (D)
11/18/2016									
11/21/2016						5.05 (D)			
2/20/2017		3.9	4.8		2.4				
2/21/2017	2			1.8					
2/22/2017							3.6	0.12 (J)	5.6
2/23/2017						4.1			
4/17/2017									
5/15/2017									
6/12/2017	2.1	3.8	4.2		2.2				
6/13/2017				1.7					
6/14/2017								4.5	
6/15/2017						4.8	3.7		5.8
9/26/2017	2	4.1	4.4	1.8	2.3				
9/27/2017								5.4	
9/28/2017						6.7	4.1		6.2
2/13/2018	2.1	4.1	4.7	1.7	2.3				
2/15/2018						8	5.3	6.3	6.2
6/26/2018	2.4	4.1	4.5	2.2	2.6				
6/27/2018							4.2	4.5	5.9
6/28/2018						5.5 (J-X)			
12/18/2018	1.8	3.8	4.5	1.9	2.3			6.1	
12/19/2018							4.9 (J-X)		6.2 (J-X)
12/20/2018						8 (J-X)			
3/19/2019	2.45 (D)	4.2	4.5	2	2.6		5		
3/20/2019						6.6		6.2	6.6
10/15/2019	2.2	3.7	4.2	1.9	2.4				
10/16/2019						6.4		5.4	6.6
12/3/2019							4.8		
3/3/2020	1.9	3.6	3.9	1.9	2.9		3.8		
3/5/2020						5.8		4.8	5.8
9/15/2020	1.9	3.7	3.7	1.7	2.3				
9/16/2020							4.2	4.1	6
9/17/2020						6.1			
3/1/2021	1.8				2.1				
3/2/2021		3.7	3.8	1.7					
3/3/2021								3.9	
3/4/2021						5.6	4.6		5.8
9/21/2021		3.2	3.2						
9/22/2021	1.7			1.5	2.1		4.6	2.7	
9/23/2021						6			6.1

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	3.1		
9/8/2016		7.2	
11/15/2016			
11/16/2016			
11/17/2016		7.8 (D)	
11/18/2016	3.95 (D)		
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017		7.1	
2/23/2017	3.2		2.1
4/17/2017			1.8
5/15/2017			1.8
6/12/2017			
6/13/2017			
6/14/2017		7.3	
6/15/2017	4		1.9
9/26/2017			
9/27/2017		7.6	
9/28/2017	4.6		1.9
2/13/2018			
2/15/2018	5.4	7.2	2.3
6/26/2018			
6/27/2018		7.1	
6/28/2018	9 (J-X)		2.1 (J-X)
12/18/2018		7.1	
12/19/2018	6.2 (J-X)		1.9 (J-X)
12/20/2018			
3/19/2019	7.1		
3/20/2019		6.9	2.3
10/15/2019			
10/16/2019		7.3	2.3
12/3/2019	7.7		
3/3/2020			
3/5/2020	7.6	6.4	1.8
9/15/2020			
9/16/2020	7.9	6.6	1.8
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	8.1	6.4	1.9
3/4/2021			
9/21/2021			
9/22/2021	7.1	5.6	
9/23/2021			1.9

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-35S	BRGWC-17S
8/31/2016	0.11 (J)	0.19 (J)	0.07 (J)	0.05 (J)					
9/1/2016					0.06 (J)				
9/7/2016						0.66	0.18 (J)	0.34	0.22 (J)
9/8/2016									
11/15/2016		0.13 (J)			0.06 (J)				
11/16/2016	0.08 (J)		0.07 (J)	0.07 (J)					
11/17/2016								0.14 (J)	0.12 (J)
11/18/2016							0.03 (J)		
11/21/2016						0.9 (D)			
2/20/2017		0.08 (J)	0.06 (J)		0.04 (J)				
2/21/2017	0.14 (J)			0.05 (J)					
2/22/2017								0.09 (J)	0.11 (J)
2/23/2017						0.75	0.07 (J)		
4/17/2017									
5/15/2017									
6/12/2017	0.16 (J)	0.07 (J)	0.008 (J)		0.06 (J)				
6/13/2017				0.04 (J)					
6/14/2017									
6/15/2017						0.77	0.01 (J)	0.03 (J)	0.05 (J)
9/26/2017	0.14 (J)	0.04 (J)	<0.1	<0.1	<0.1				
9/27/2017									
9/28/2017						0.8	<0.1	<0.1	0.05 (J)
2/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1				
2/15/2018						0.82	<0.1	<0.1	<0.1
6/26/2018	0.085 (J)	0.072 (J)	0.045 (J)	0.048 (J)	0.041 (J)				
6/27/2018								0.22 (J)	0.093 (J)
6/28/2018						1.5 (J+X)	0.51 (J+X)		
12/18/2018	0.085 (J)	<0.1	<0.1	<0.1	<0.1				
12/19/2018							<0.1	0.11 (J)	0.16 (J)
12/20/2018						0.68			
3/19/2019	0.0655 (JD)	0.06 (J)	<0.1	0.037 (J)	0.03 (J)		<0.1		0.1 (J)
3/20/2019						0.95		0.088 (J)	
8/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1				
8/28/2019							<0.1	0.056 (J)	0.085 (J)
8/29/2019						0.9			
10/15/2019	<0.1	0.045 (J)	<0.1	<0.1	<0.1				
10/16/2019						0.61		0.08 (J)	
12/3/2019							0.15 (J)		0.2 (J)
3/3/2020	0.066 (J)	0.057 (J)	<0.1	0.05 (J)	0.09 (J)				0.093 (J)
3/5/2020						0.92	<0.1	0.067 (J)	
8/18/2020	<0.1	<0.1	<0.1	<0.1	<0.1				
8/19/2020						0.95	0.051 (J)	0.06 (J)	0.1
9/15/2020	<0.1	0.051 (J)	<0.1	<0.1	<0.1				
9/16/2020							<0.1	0.062 (J)	0.1
9/17/2020						0.68			
3/1/2021	<0.1				<0.1				
3/2/2021		<0.1	<0.1	<0.1					
3/3/2021							<0.1		
3/4/2021						0.83		0.076 (J)	0.096 (J)
9/21/2021		0.056 (J)	<0.1						
9/22/2021	<0.1			<0.1	<0.1		0.054 (J)		0.1
9/23/2021						0.85		0.073 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	0.19 (J)		
9/8/2016		0.17 (J)	
11/15/2016			
11/16/2016			
11/17/2016	0.12 (J)	0.06 (J)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	0.21 (J)	0.17 (J)	
2/23/2017			0.1 (J)
4/17/2017			0.08 (J)
5/15/2017			0.02 (J)
6/12/2017			
6/13/2017			
6/14/2017	0.18 (J)	0.1 (J)	
6/15/2017			0.03 (J)
9/26/2017			
9/27/2017	0.42	0.4	
9/28/2017			<0.1
2/13/2018			
2/15/2018	0.42	<0.1	<0.1
6/26/2018			
6/27/2018	0.32	0.21 (J)	
6/28/2018			<0.1
12/18/2018	0.28 (J)	0.12 (J)	
12/19/2018			0.094 (J)
12/20/2018			
3/19/2019			
3/20/2019	0.14 (J)	0.074 (J)	0.062 (J)
8/27/2019	0.11 (J)		
8/28/2019	0.11 (J)	0.057 (J)	<0.1
8/29/2019			
10/15/2019			
10/16/2019	0.17 (J)	0.13 (J)	0.059 (J)
12/3/2019			
3/3/2020			
3/5/2020	0.088 (J)	0.072 (J)	0.05 (J)
8/18/2020			
8/19/2020	0.11	0.074 (J)	0.055 (J)
9/15/2020			
9/16/2020	0.085 (J)	0.077 (J)	<0.1
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	0.069 (J)	0.071 (J)	<0.1
3/4/2021			
9/21/2021			
9/22/2021	0.068 (J)	0.1	
9/23/2021			<0.1

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-36S	BRGWC-35S	BRGWC-33S	BRGWC-17S
8/31/2016	7.16	6.59	6.53	6.2					
9/1/2016					6.49				
9/7/2016						5.59	6.1	4.92	6.36
9/8/2016									
9/23/2016									
11/15/2016		6.67			6.59				
11/16/2016	6.96		6.4	6.12					
11/17/2016							6.04	4.82	6.28
11/18/2016						5.51			
11/21/2016									
2/20/2017		6.65	6.44		6.61				
2/21/2017	7.15			6.24					
2/22/2017							6.08	4.86	6.4
2/23/2017						5.65			
6/12/2017	7.31	6.64	6.4						
6/13/2017				6.19				4.86	
6/14/2017									
9/26/2017	7.02	6.58	6.31	6.15	6.47				
9/27/2017								4.78	
9/28/2017						5.62	6.03		6.35
2/13/2018	7.44	6.72	6.62	6.18	6.54				
2/15/2018						5.66	6.02	4.84	6.35
6/26/2018	6.93	6.43	6.29	6.05	6.23				
6/27/2018							6.01	4.73	6.35
6/28/2018						5.57			
12/18/2018	6.76	6.7	6.57	5.92	6.71			4.84	
12/19/2018						5.76	6.22		6.56
12/20/2018									
3/19/2019	6.87	6.63	6.45	6.18	6.18	5.72			6.43
3/20/2019							6.06	4.77	
8/27/2019	6.79	6.49	6.37	6.09	6.35			4.78	
8/28/2019						5.52	5.95	5.52	6.25
8/29/2019									
10/15/2019	6.57	7.01	6.77	6.06	6.36				
10/16/2019							6.03	4.78	
10/17/2019						5.61			6.3
3/3/2020	6.71	6.49	6.29	6.1	6.59				6.34
3/5/2020						5.39	6.04	4.82	
8/18/2020	6.59	6.41	6.29	6.06	6.33				
8/19/2020						5.53	5.97	4.78	6.24
9/15/2020	6.64	6.25	6.27	6.01	6.43				
9/16/2020						5.58	5.96	4.78	6.26
9/17/2020									
3/1/2021	6.66				6.7				
3/2/2021		6.42	6.47	6.2					
3/3/2021						5.86		4.83	
3/4/2021							6.14		6.45
9/21/2021		6.36	6.32						
9/22/2021	6.78			6.06	6.48	5.53		4.81	6.22
9/23/2021							6.08		

Prediction Limit

Constituent: pH, Field (S.U.) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-38S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	5.43		
9/8/2016		5.84	
9/23/2016	5.46		
11/15/2016			
11/16/2016			
11/17/2016		5.81	
11/18/2016			
11/21/2016	4.84		
2/20/2017			
2/21/2017			
2/22/2017		5.85	
2/23/2017	4.73		5.57
6/12/2017			
6/13/2017			
6/14/2017		5.87	
9/26/2017			
9/27/2017		5.74	
9/28/2017	4.37		5.76
2/13/2018			
2/15/2018	4.3	5.93	5.95
6/26/2018			
6/27/2018		5.68	
6/28/2018	4.16		5.78
12/18/2018		5.97	
12/19/2018			6.07
12/20/2018	4.21		
3/19/2019			
3/20/2019	4.34	5.84	5.93
8/27/2019			
8/28/2019		5.8	5.8
8/29/2019	4.01		
10/15/2019			
10/16/2019	4.21	5.85	5.81
10/17/2019			
3/3/2020			
3/5/2020	4.01	5.89	5.53
8/18/2020			
8/19/2020	4.12	5.78	5.66
9/15/2020			
9/16/2020		5.81	5.84
9/17/2020	4.17		
3/1/2021			
3/2/2021			
3/3/2021		5.88	5.87
3/4/2021	4.19		
9/21/2021			
9/22/2021		5.93	
9/23/2021	4.05		5.85

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-33S	BRGWC-35S
8/31/2016	7.5	0.81 (J)	2.7	0.38 (J)					
9/1/2016					0.6 (J)				
9/7/2016						440	97	260	260
9/8/2016									
11/15/2016		<1 (J)			0.68 (J)				
11/16/2016	6.6		3.4	<1 (J)					
11/17/2016							120 (D)	235 (D)	285 (D)
11/18/2016									
11/21/2016						490 (D)			
2/20/2017		1 (B-01)	3.9 (B-01)		0.98 (J)				
2/21/2017	6.1			1.5					
2/22/2017							120	210	270
2/23/2017						470			
4/17/2017									
5/15/2017									
6/12/2017	5	0.94 (J)	3.7		0.54 (J)				
6/13/2017				0.67 (J)					
6/14/2017								200	
6/15/2017						490	130		280
9/26/2017	5.4	0.92 (J)	4.1	0.62 (J)	0.53 (J)				
9/27/2017								200	
9/28/2017						470	120		240
2/13/2018	4.7 (J)	<1	6.6	<1	<1				
2/15/2018						432	109	197	266
6/26/2018	6.2	0.91 (J)	3.5	0.69 (J)	0.54 (J)				
6/27/2018							118	200	278
6/28/2018						453			
12/18/2018	5.9	0.68 (J)	4.3	0.72 (J)	0.39 (J)			222	
12/19/2018							125		287
12/20/2018						463			
3/19/2019	6 (D)	0.74 (J)	3	0.78 (J)	0.68 (J)		126		
3/20/2019						405		204	268
10/15/2019	5.2	0.68 (J)	3.8	0.47 (J)	0.48 (J)				
10/16/2019						432		226	277
12/3/2019							180		
3/3/2020	7.1	0.71 (J)	2.8	0.93 (J)	2.5		95.4		
3/5/2020						370		173	269
9/15/2020	5.9	<1	1.7	<1	<1				
9/16/2020							151	154	270
9/17/2020						356			
3/1/2021	4.7				0.74 (J)				
3/2/2021		<1	2.2	<1					
3/3/2021								133	
3/4/2021						325	122		251
9/21/2021		<1	2.3						
9/22/2021	5.2			<1	<1		123	94.6	
9/23/2021						318			258

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	300		
9/8/2016		420	
11/15/2016			
11/16/2016			
11/17/2016		445 (D)	
11/18/2016	245 (D)		
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017		410	
2/23/2017	330		0.55 (J)
4/17/2017			0.44 (J)
5/15/2017			0.45 (J)
6/12/2017			
6/13/2017			
6/14/2017		410	
6/15/2017	310		0.46 (J)
9/26/2017			
9/27/2017		360	
9/28/2017	290		0.49 (J)
2/13/2018			
2/15/2018	292	335	1.9 (o)
6/26/2018			
6/27/2018		296	
6/28/2018	284		0.24 (J)
12/18/2018		345	
12/19/2018	319		0.4 (J)
12/20/2018			
3/19/2019	307		
3/20/2019		329	<1 (X)
10/15/2019			
10/16/2019		325	0.29 (J)
12/3/2019	256		
3/3/2020			
3/5/2020	262	287	<1
9/15/2020			
9/16/2020	256	283	<1
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	252	277	<1
3/4/2021			
9/21/2021			
9/22/2021	234	232	
9/23/2021			<1

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-17S	BRGWC-33S	BRGWC-35S
8/31/2016	151	154	138	88					
9/1/2016					299				
9/7/2016						750	331	382	486
9/8/2016									
11/15/2016		123			41				
11/16/2016	69		77	41					
11/17/2016							308	382	453
11/18/2016									
11/21/2016						795			
2/20/2017		158	170		133				
2/21/2017	68			<10					
2/22/2017							341	387	541
2/23/2017						733			
4/17/2017									
5/15/2017									
6/12/2017	161	142	132		61				
6/13/2017				53					
6/14/2017								316	
6/15/2017						812	333		548
9/26/2017	167	138	108	45	29				
9/27/2017								303	
9/28/2017						690	310		487
2/13/2018	165	150	141	63	61				
2/15/2018						722	292	332	500
6/26/2018	188	154	133	71	71				
6/27/2018							353 (X)	538 (X)	347 (X)
6/28/2018						704			
12/18/2018	145 (X)	147	138 (X)	78 (X)	70 (X)			358	
12/19/2018							317		489
12/20/2018						642			
3/19/2019	146.5 (D)	146	130	68	72		303		
3/20/2019						615		338	501
10/15/2019	140	144	175	66	63				
10/16/2019						630		281	481
12/3/2019							378		
3/3/2020	155	130	<10	41	54		263		
3/5/2020						608		292	535
9/15/2020	116	116	100	69	79				
9/16/2020							316	88	474
9/17/2020						587			
3/1/2021	98				39				
3/2/2021		96	80	43					
3/3/2021								212	
3/4/2021						540	316		480
9/21/2021		104	108						
9/22/2021	129			66	62		323	190	
9/23/2021						528			511

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/28/2021 7:51 AM View: PLs Interwell Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	528		
9/8/2016		663	
11/15/2016			
11/16/2016			
11/17/2016		651	
11/18/2016	524		
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017		706	
2/23/2017	517		45
4/17/2017			53
5/15/2017			48
6/12/2017			
6/13/2017			
6/14/2017		643	
6/15/2017	566		63
9/26/2017			
9/27/2017		579	
9/28/2017	475		39
2/13/2018			
2/15/2018	513	612	54
6/26/2018			
6/27/2018		359 (X)	
6/28/2018	499		59 (X)
12/18/2018		535	
12/19/2018	521		68
12/20/2018			
3/19/2019	498		
3/20/2019		517	68 (X)
10/15/2019			
10/16/2019		473	49
12/3/2019	498		
3/3/2020			
3/5/2020	457	489	39
9/15/2020			
9/16/2020	463	392	31
9/17/2020			
3/1/2021			
3/2/2021			
3/3/2021	442	422	33
3/4/2021			
9/21/2021			
9/22/2021	457	406	
9/23/2021			49

FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 8:01 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>
Boron (mg/L)	BRGWC-35S	0.1871	71	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-34S	-4.934	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.931	-55	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-34S	-0.2607	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	1.111	64	48	Yes	14	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
pH, Field (S.U.)	BRGWC-38S	-0.1644	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-21.01	-54	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-35.99	-80	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-38S	-33.47	-66	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-57.34	-65	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-16.06	-63	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-52.14	-77	-48	Yes	14	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 8:01 AM

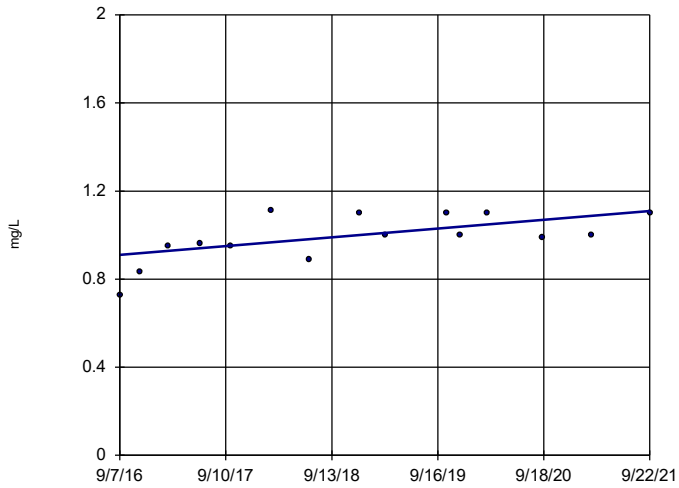
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	0.002384	20	48	No	14	21.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	6	48	No	14	71.43	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	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-33S	0	-1	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0	1	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-35S	0.1871	71	48	Yes	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-36S	0.03939	46	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.08072	-44	-48	No	14	0	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
Calcium (mg/L)	BRGWA-6S (bg)	0.177	51	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.591	42	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-2.641	-41	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-4.934	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-35S	2.011	36	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-0.2098	-10	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-1.931	-55	-48	Yes	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-34S	-0.2607	-57	-48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-35S	0.04963	16	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-36S	1.111	64	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BRGWC-38S	0.1287	11	48	No	14	0	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-38S	0.01742	21	58	No	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
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-33S	-0.009037	-29	-63	No	17	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-36S	-0.004873	-4	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-37S	0.02208	10	43	No	13	0	n/a	n/a	0.01	NP
pH, Field (S.U.)	BRGWC-38S	-0.1644	-78	-58	Yes	16	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
Sulfate (mg/L)	BRGWC-17S	2.57	24	48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-33S	-21.01	-54	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-34S	-35.99	-80	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-35S	-2.219	-16	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BRGWC-36S	-12.6	-42	-48	No	14	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results Page 2

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/28/2021, 8:01 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>
Sulfate (mg/L)	BRGWC-38S	-33.47	-66	-48	Yes	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-17S	-1.586	-6	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-34S	-57.34	-65	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-35S	-0.7228	-1	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-36S	-16.06	-63	-48	Yes	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BRGWC-38S	-52.14	-77	-48	Yes	14	0	n/a	n/a	0.01	NP

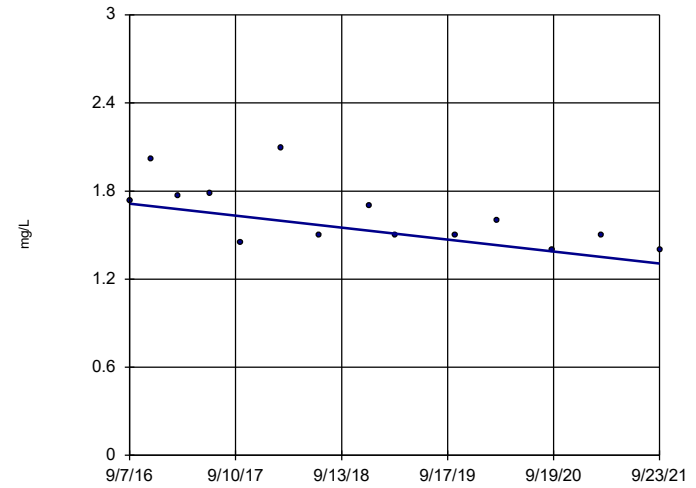
Sen's Slope Estimator
BRGWC-36S



n = 15
Slope = 0.03939 units per year.
Mann-Kendall statistic = 46
critical = 53
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

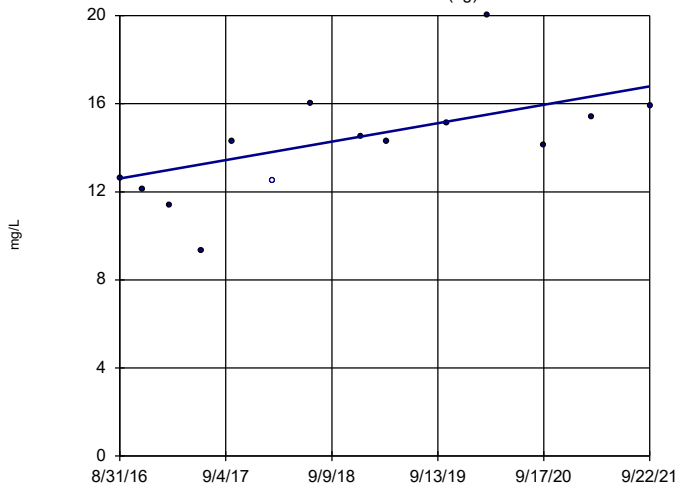
Sen's Slope Estimator
BRGWC-38S



n = 14
Slope = -0.08072 units per year.
Mann-Kendall statistic = -44
critical = -48
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

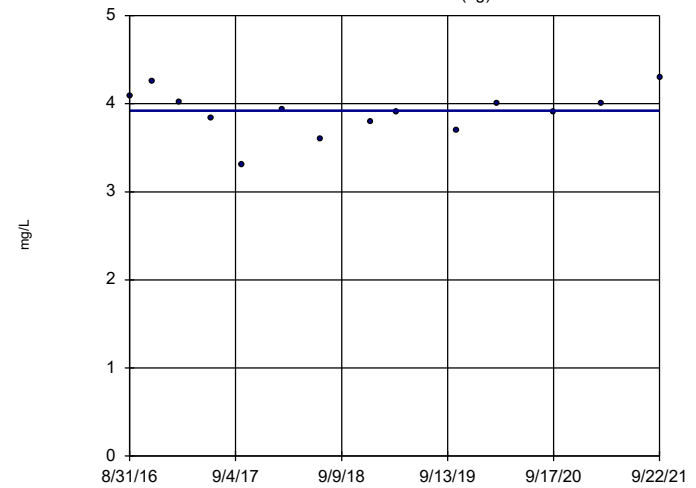
Sen's Slope Estimator
BRGWA-2I (bg)



n = 14
Slope = 0.8266 units per year.
Mann-Kendall statistic = 46
critical = 48
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-2S (bg)

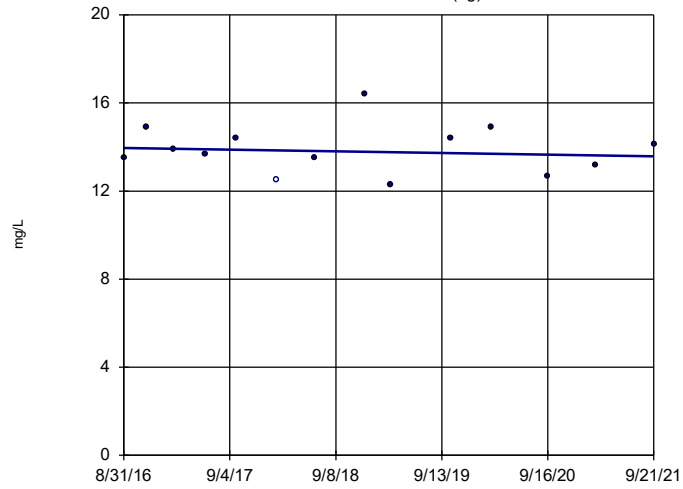


n = 14
Slope = 0 units per year.
Mann-Kendall statistic = 1
critical = 48
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

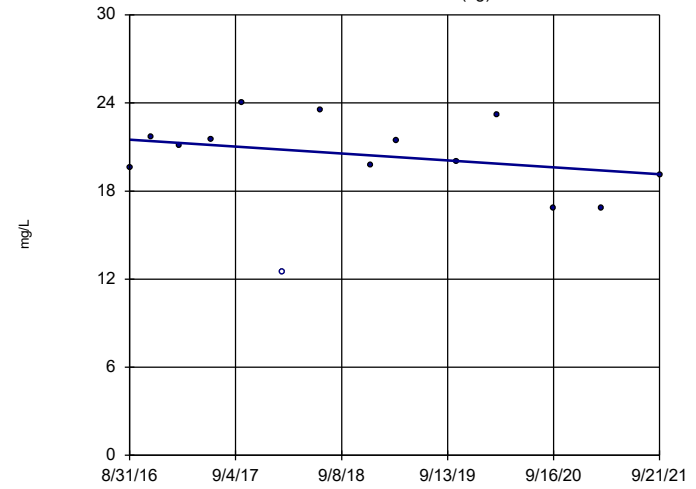


n = 14
 Slope = -0.07521
 units per year.
 Mann-Kendall
 statistic = -6
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

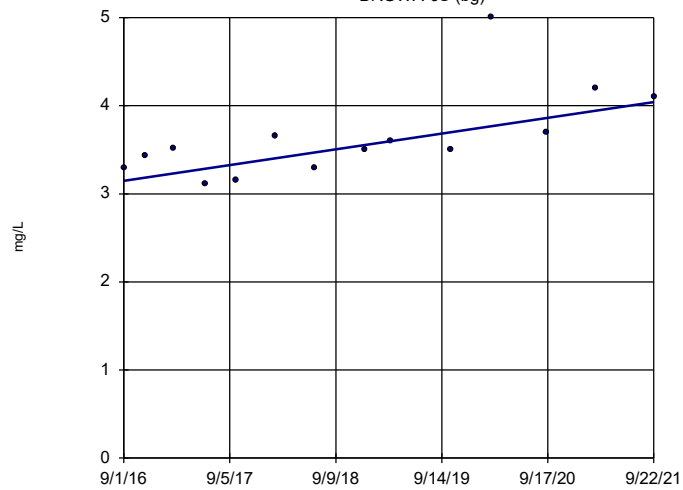


n = 14
 Slope = -0.4646
 units per year.
 Mann-Kendall
 statistic = -20
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

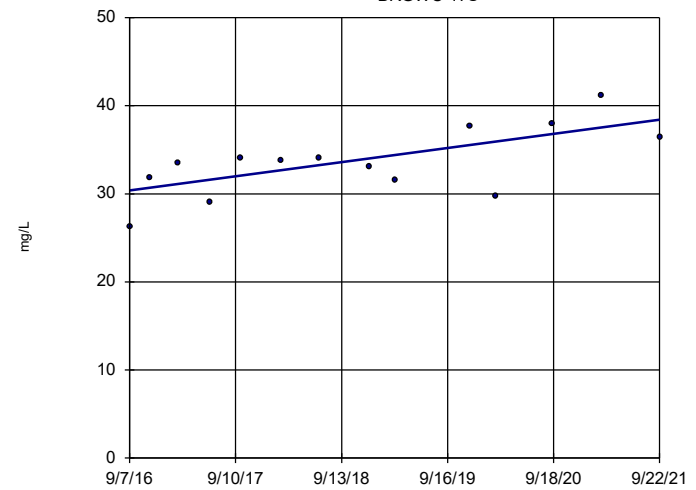


n = 14
 Slope = 0.177
 units per year.
 Mann-Kendall
 statistic = 51
 critical = 48
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

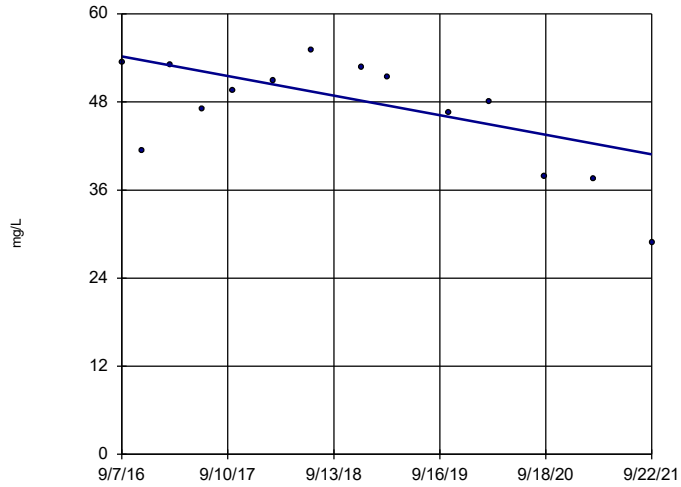


n = 14
 Slope = 1.591
 units per year.
 Mann-Kendall
 statistic = 42
 critical = 48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

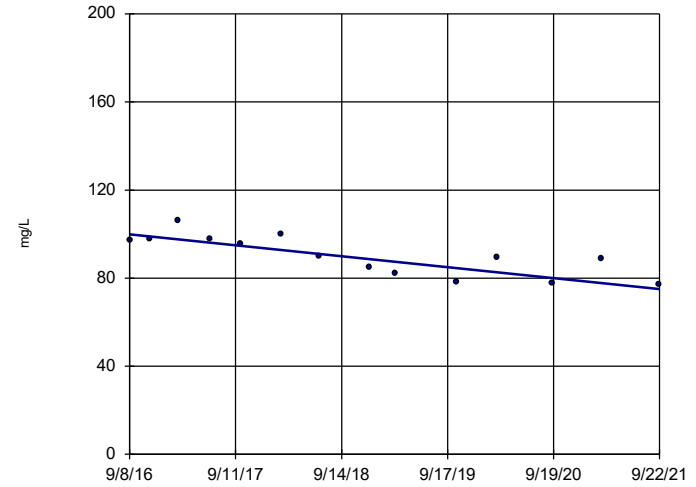


n = 14
 Slope = -2.641 units per year.
 Mann-Kendall statistic = -41
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

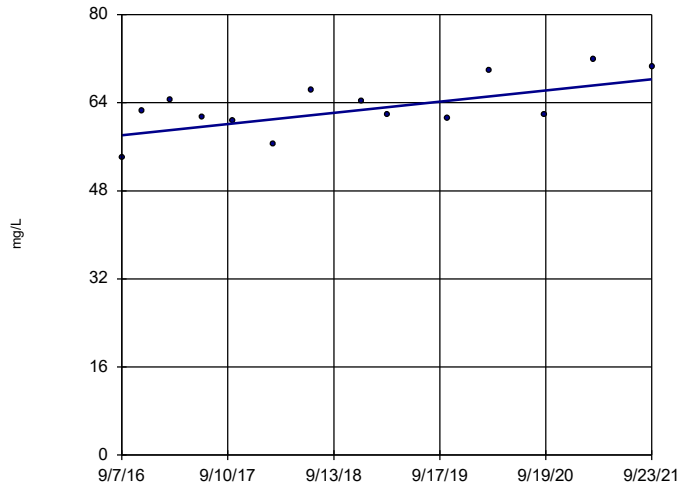


n = 14
 Slope = -4.934 units per year.
 Mann-Kendall statistic = -59
 critical = -48
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-35S

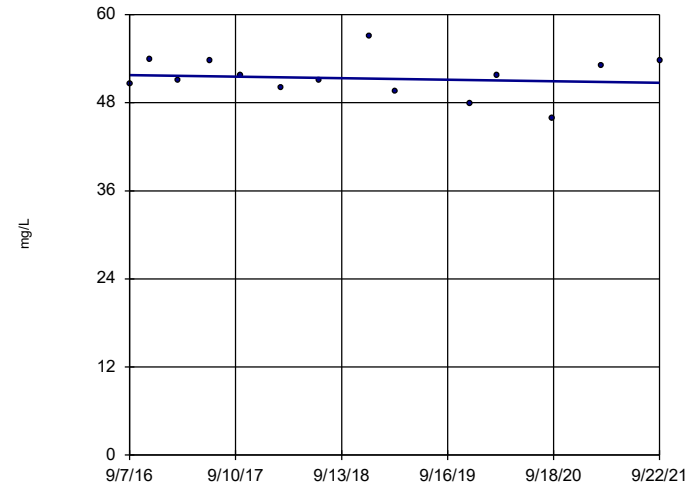


n = 14
 Slope = 2.011 units per year.
 Mann-Kendall statistic = 36
 critical = 48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

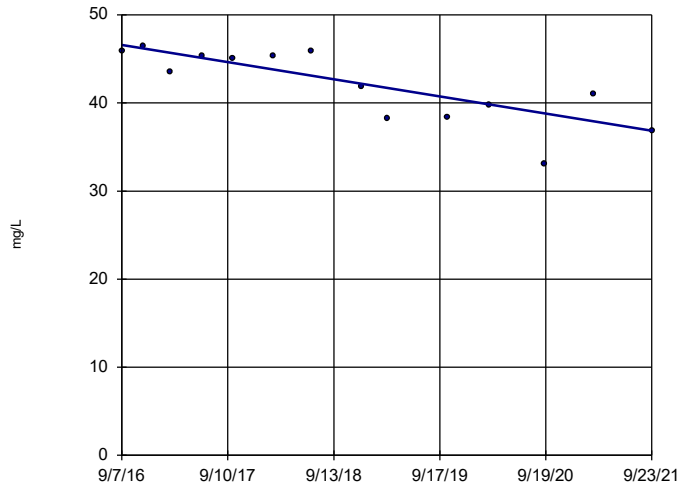


n = 14
 Slope = -0.2098 units per year.
 Mann-Kendall statistic = -10
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

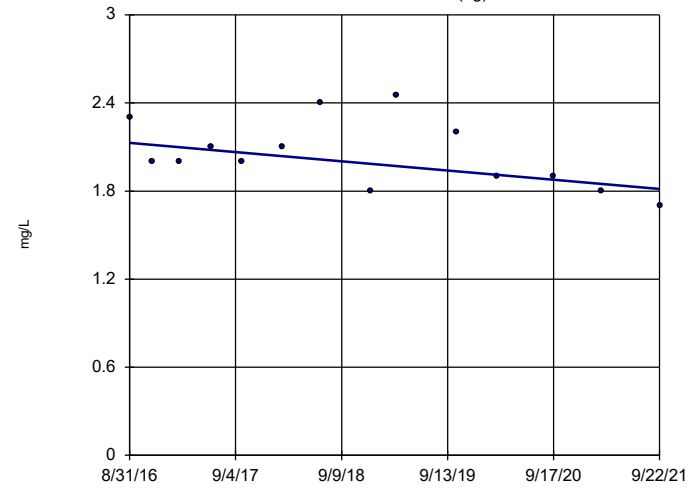


n = 14
 Slope = -1.931
 units per year.
 Mann-Kendall
 statistic = -55
 critical = -48
 Decreasing trend
 significant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Calcium Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

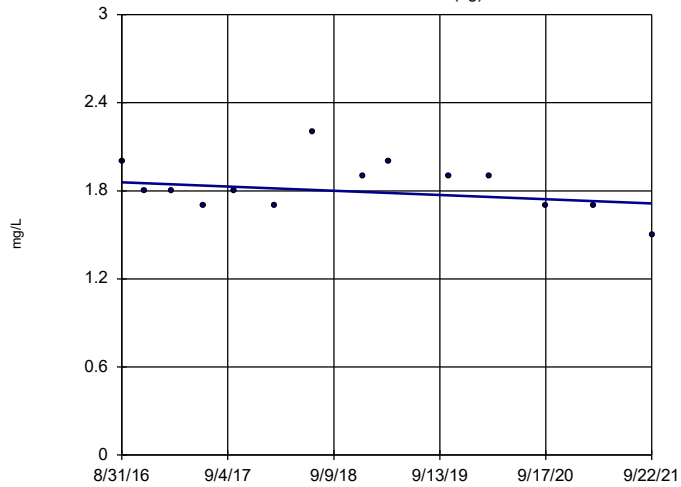


n = 14
 Slope = -0.06183
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

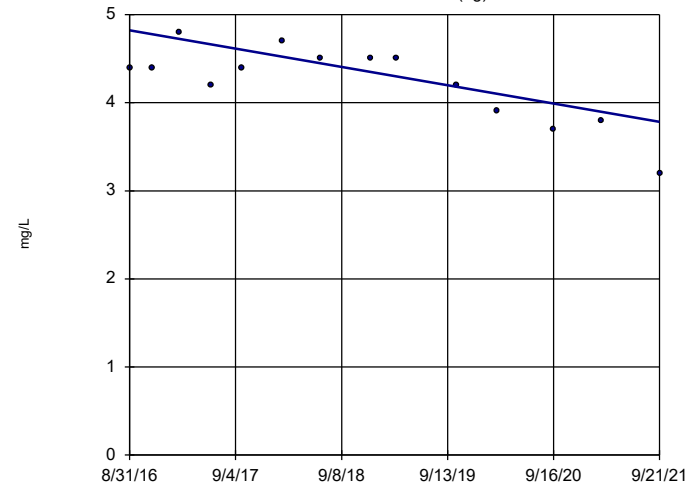


n = 14
 Slope = -0.02852
 units per year.
 Mann-Kendall
 statistic = -22
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

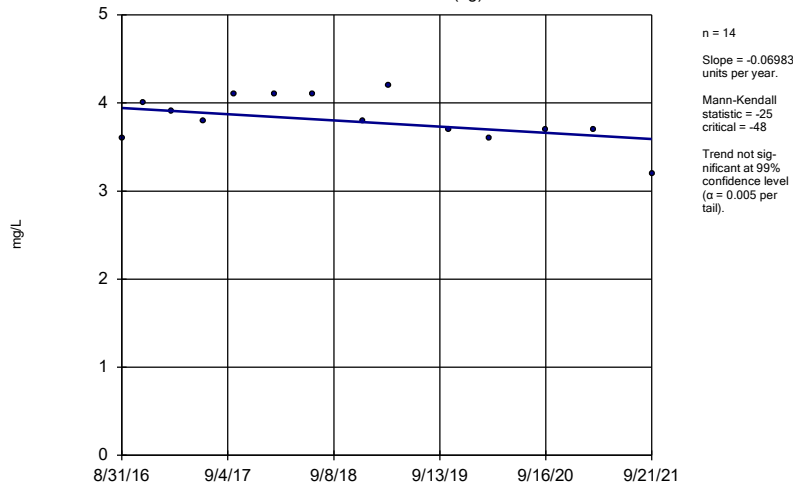
BRGWA-5I (bg)



n = 14
 Slope = -0.2053
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

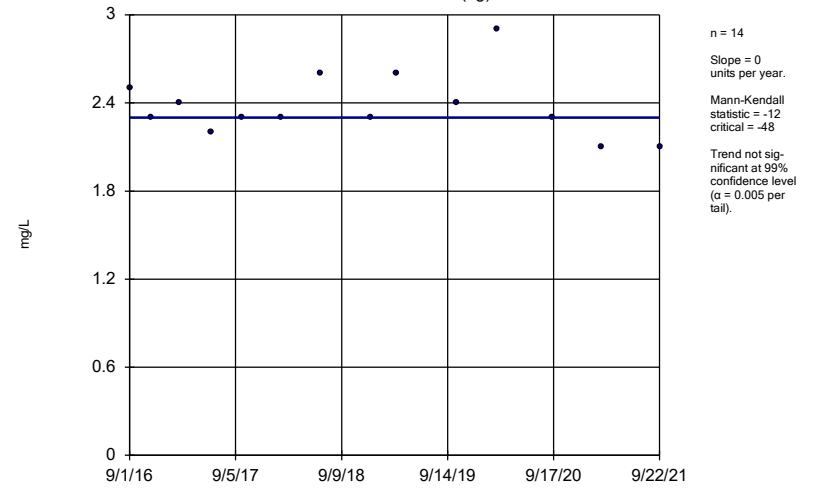
Constituent: Chloride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-5S (bg)



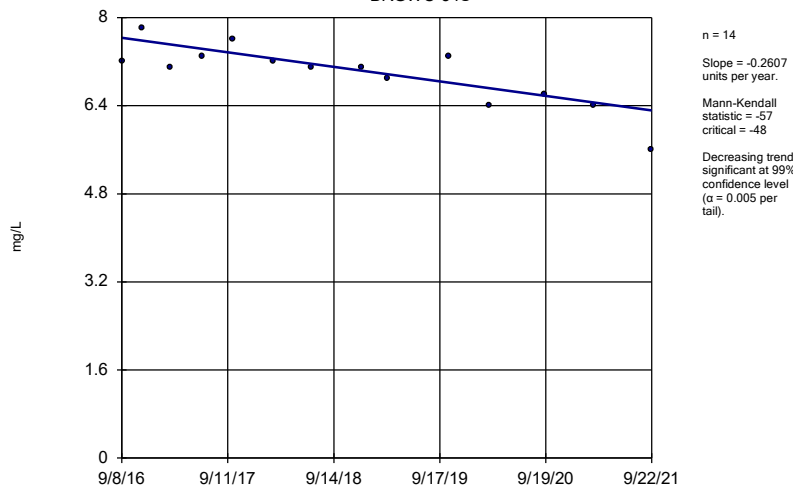
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-6S (bg)



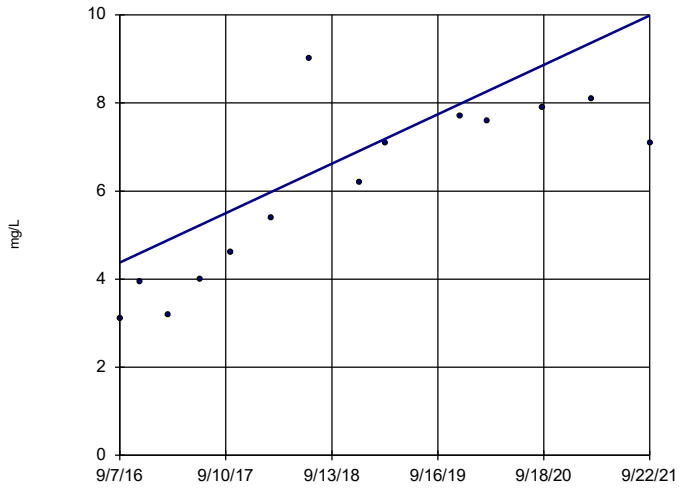
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Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-34S



Sen's Slope Estimator

BRGWC-36S

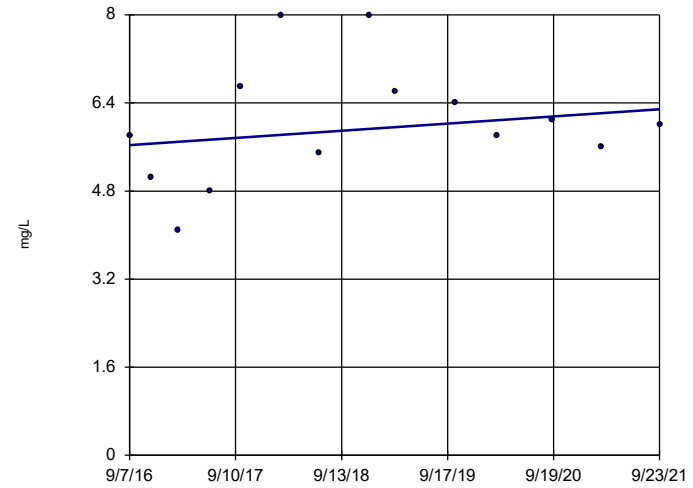


n = 14
 Slope = 1.111 units per year.
 Mann-Kendall statistic = 64
 critical = 48
 Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

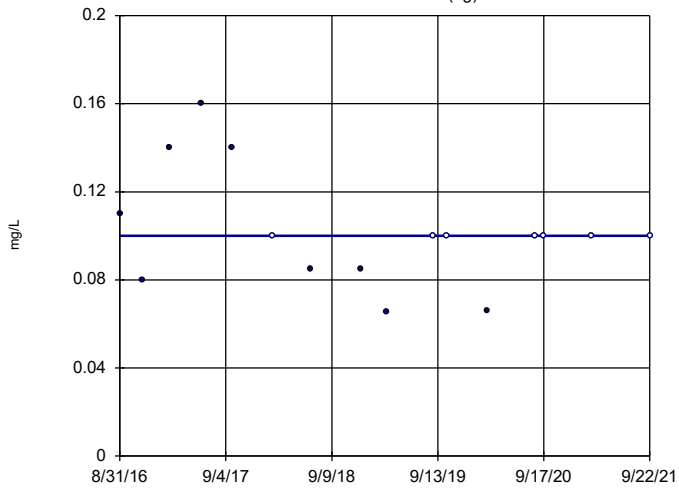


n = 14
 Slope = 0.1287 units per year.
 Mann-Kendall statistic = 11
 critical = 48
 Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

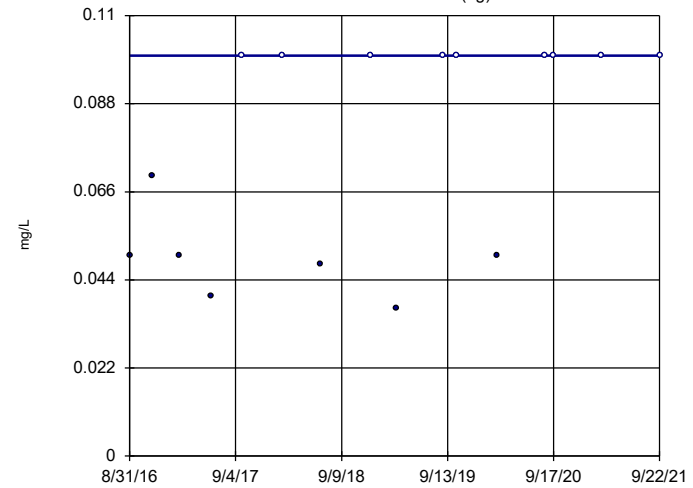


n = 16
 Slope = 0 units per year.
 Mann-Kendall statistic = -19
 critical = -58
 Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Fluoride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

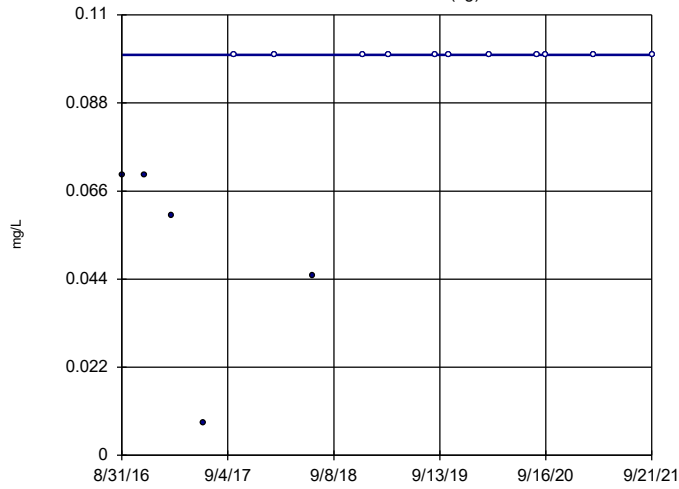


n = 16
 Slope = 0 units per year.
 Mann-Kendall statistic = 35
 critical = 58
 Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Fluoride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

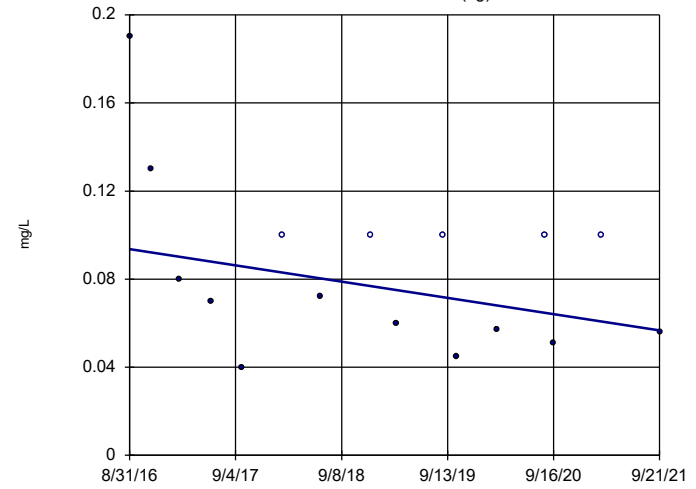


n = 16
Slope = 0
units per year.
Mann-Kendall
statistic = 44
critical = 58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

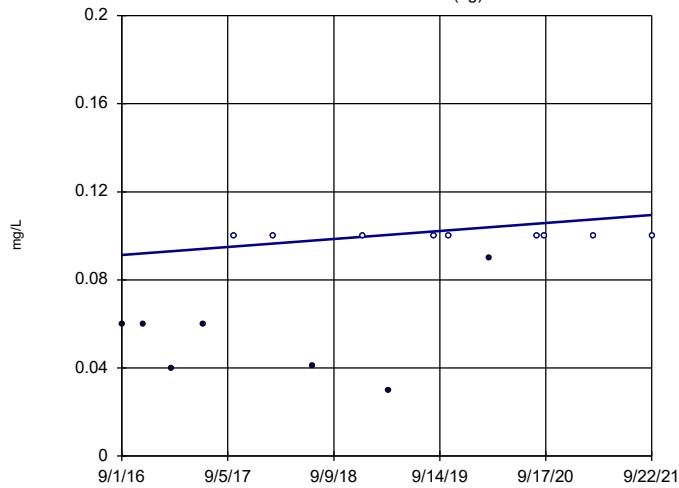


n = 16
Slope = -0.007283
units per year.
Mann-Kendall
statistic = -34
critical = -58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

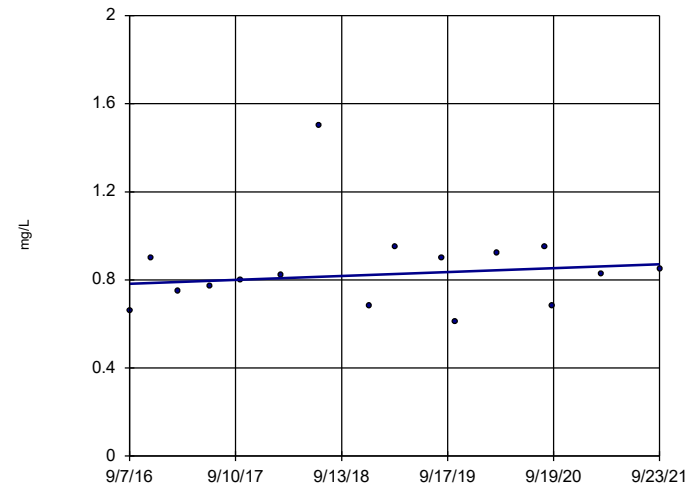


n = 16
Slope = 0.003585
units per year.
Mann-Kendall
statistic = 41
critical = 58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

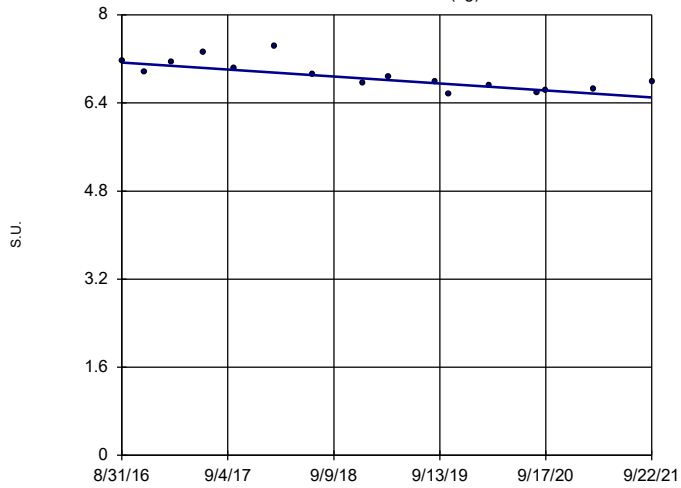


n = 16
Slope = 0.01742
units per year.
Mann-Kendall
statistic = 21
critical = 58
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride Analysis Run 11/28/2021 7:58 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

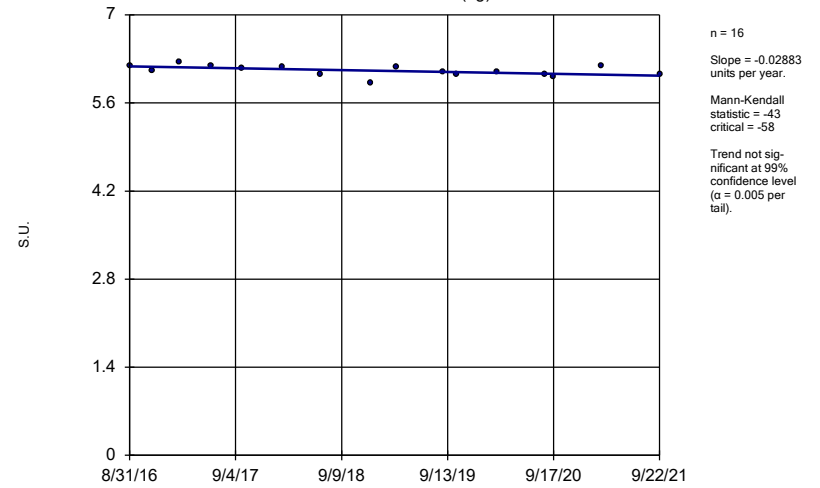
BRGWA-2I (bg)



Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

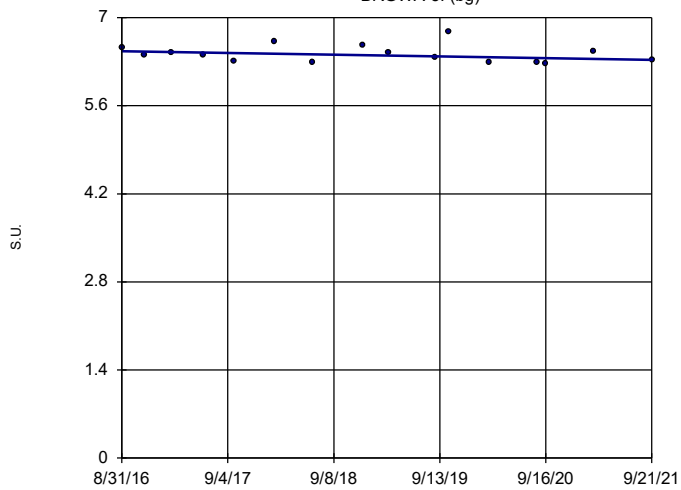
BRGWA-2S (bg)



Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

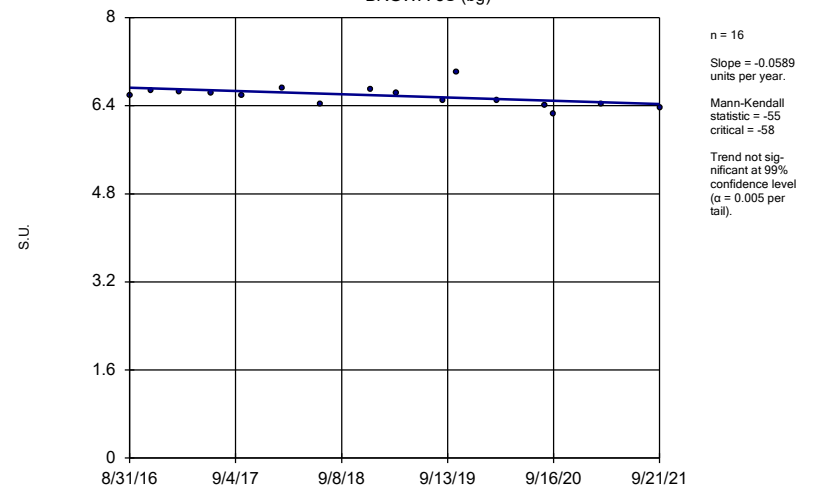
BRGWA-5I (bg)



Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

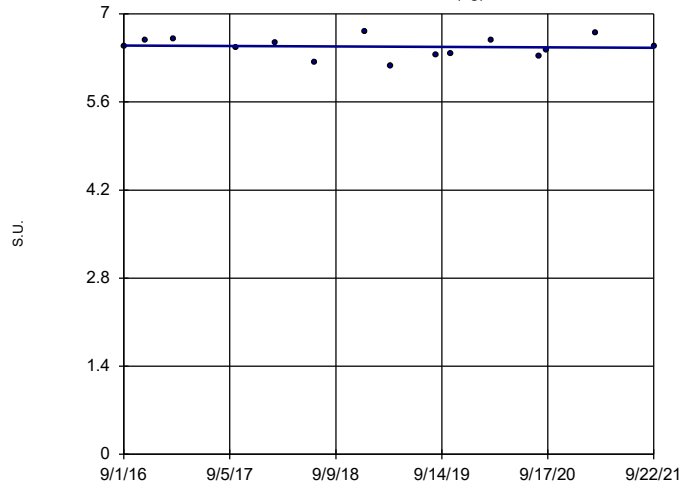
BRGWA-5S (bg)



Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

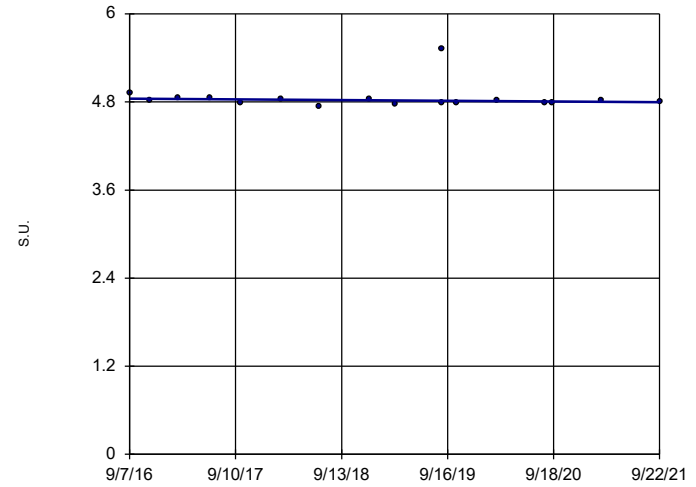


n = 15
 Slope = -0.006594 units per year.
 Mann-Kendall statistic = -6
 critical = -53
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

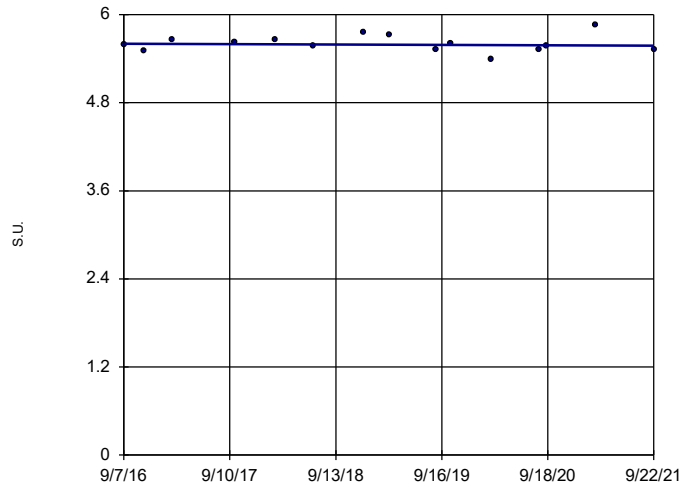


n = 17
 Slope = -0.009037 units per year.
 Mann-Kendall statistic = -29
 critical = -63
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-36S

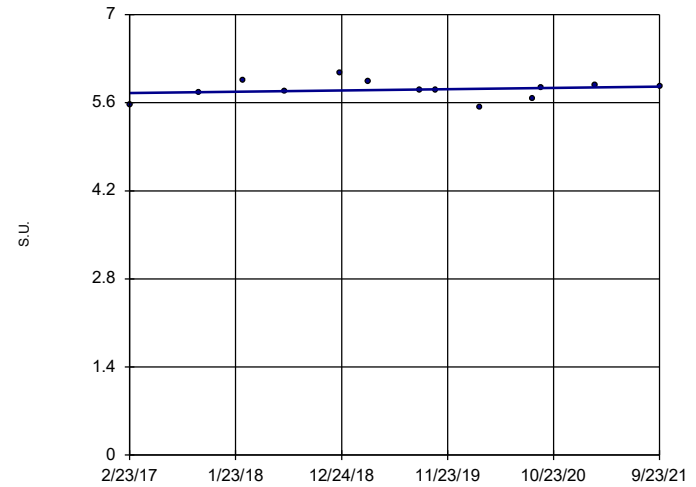


n = 15
 Slope = -0.004873 units per year.
 Mann-Kendall statistic = -4
 critical = -53
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

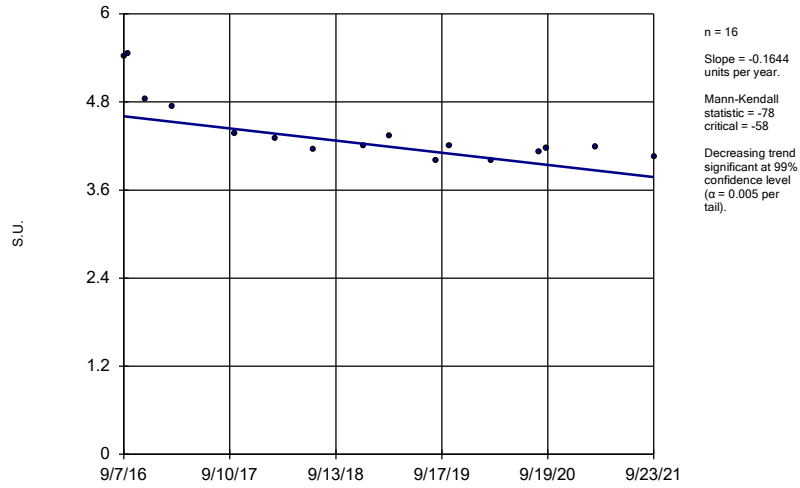
BRGWC-37S



n = 13
 Slope = 0.02208 units per year.
 Mann-Kendall statistic = 10
 critical = 43
 Trend not significant at 99% confidence level (α = 0.005 per tail).

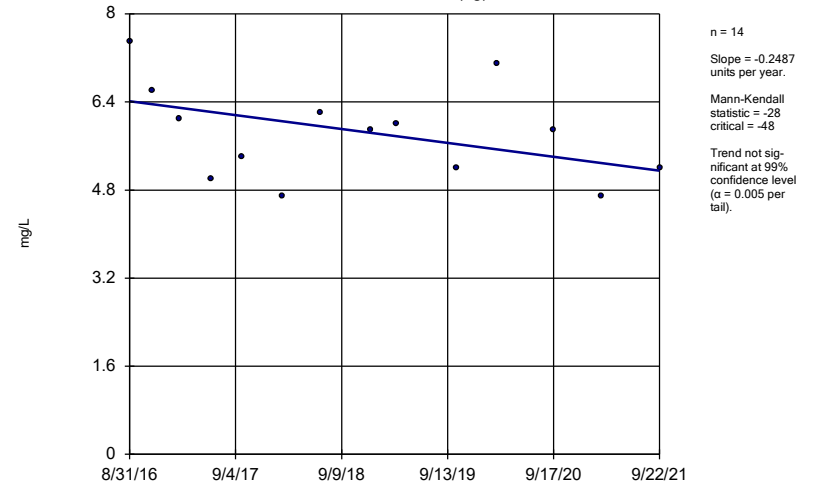
Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-38S



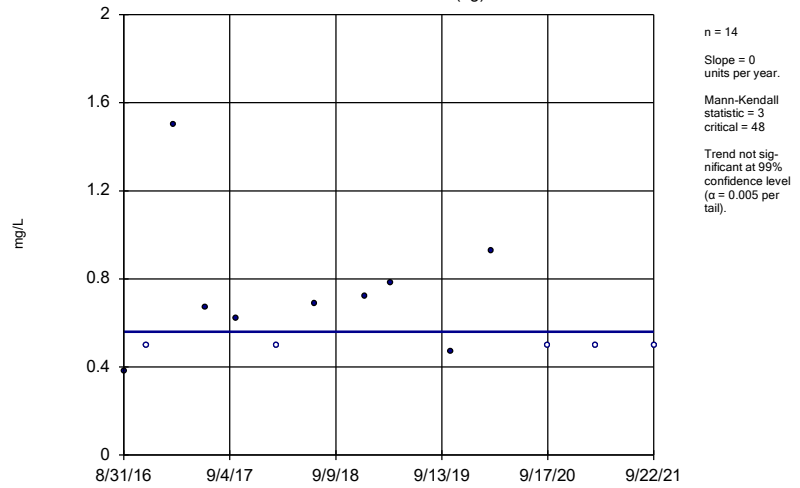
Constituent: pH, Field Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-2I (bg)



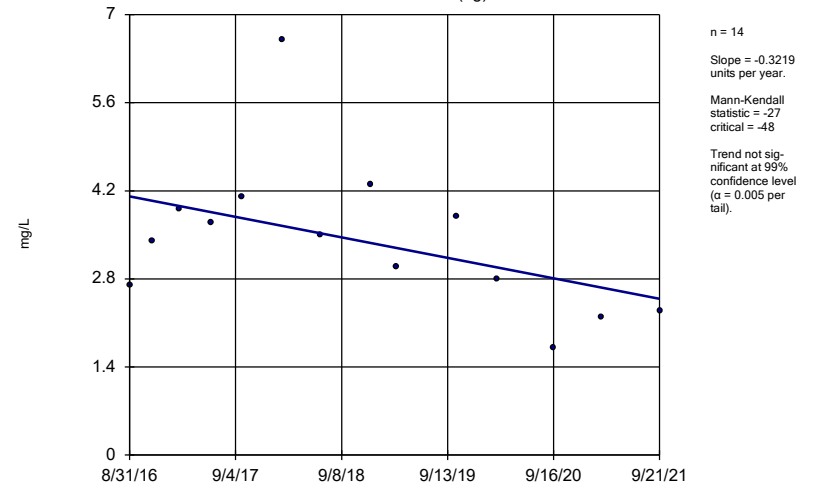
Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWA-2S (bg)



Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

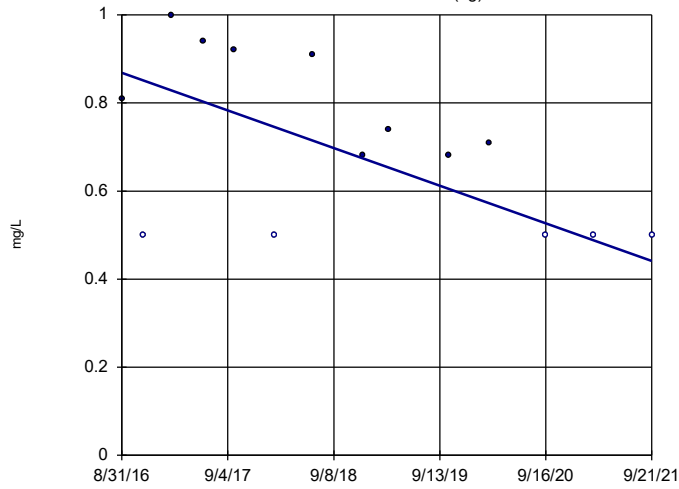
Sen's Slope Estimator
BRGWA-5I (bg)



Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

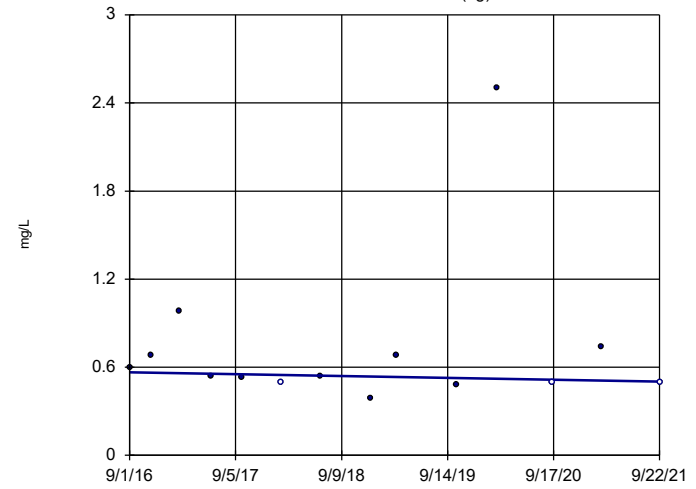


n = 14
Slope = -0.08437
units per year.
Mann-Kendall
statistic = -40
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

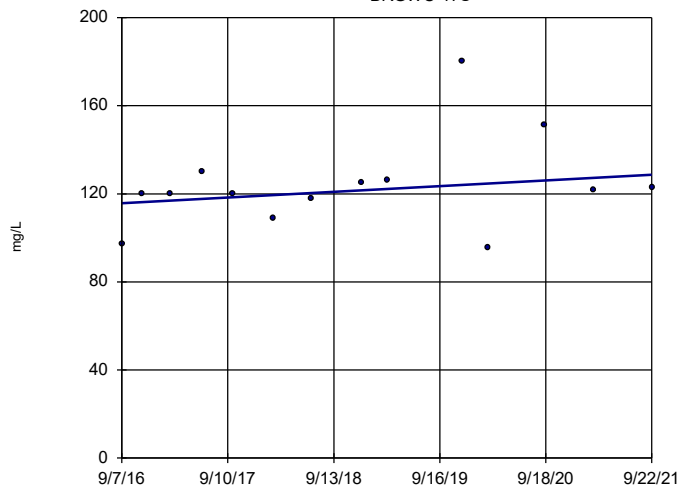


n = 14
Slope = -0.01226
units per year.
Mann-Kendall
statistic = -14
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

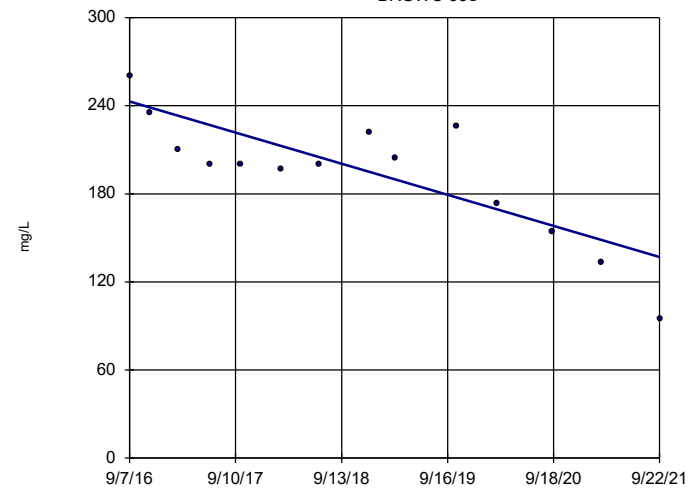


n = 14
Slope = 2.57
units per year.
Mann-Kendall
statistic = 24
critical = 48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

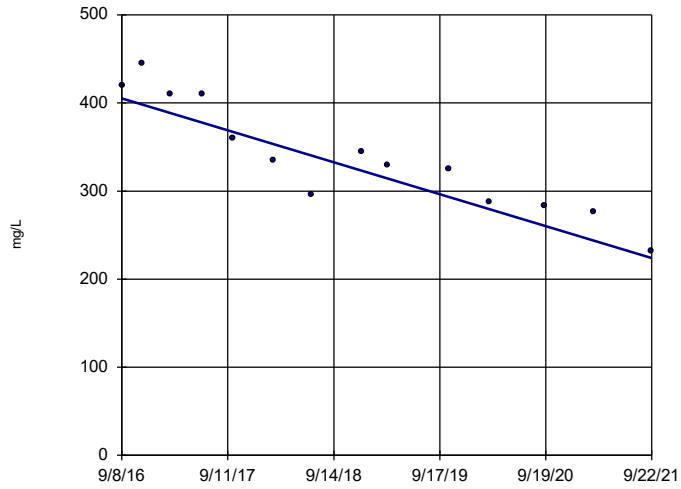
BRGWC-33S



n = 14
Slope = -21.01
units per year.
Mann-Kendall
statistic = -54
critical = -48
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
Plant Branch Client: Southern Company Data: Plant Branch AP

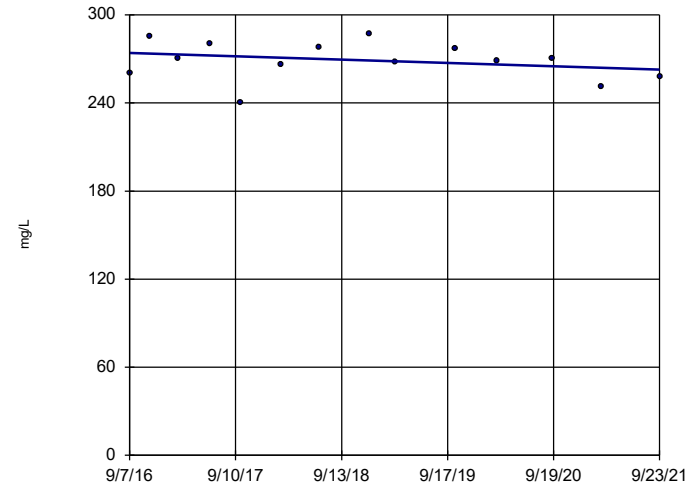
Sen's Slope Estimator
BRGWC-34S



n = 14
 Slope = -35.99
 units per year.
 Mann-Kendall
 statistic = -80
 critical = -48
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

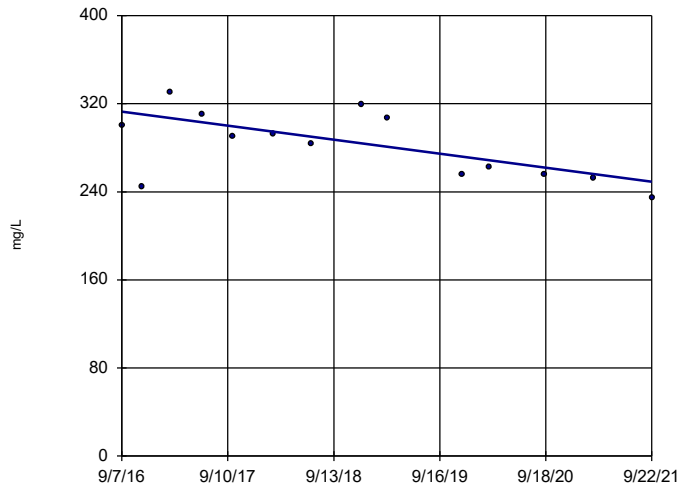
Sen's Slope Estimator
BRGWC-35S



n = 14
 Slope = -2.219
 units per year.
 Mann-Kendall
 statistic = -16
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

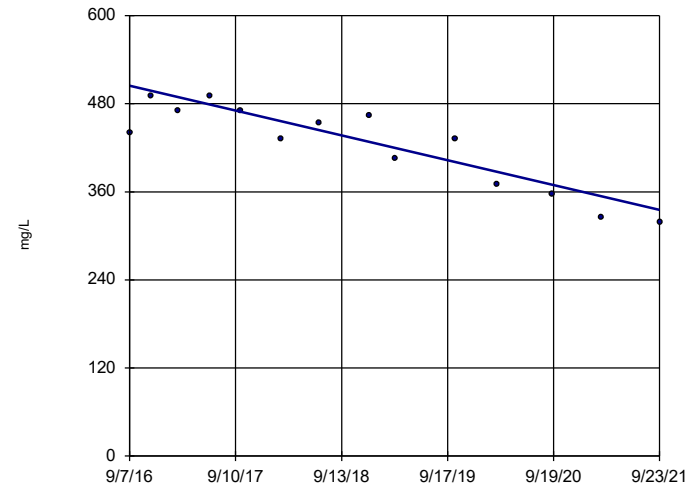
Sen's Slope Estimator
BRGWC-36S



n = 14
 Slope = -12.6
 units per year.
 Mann-Kendall
 statistic = -42
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator
BRGWC-38S

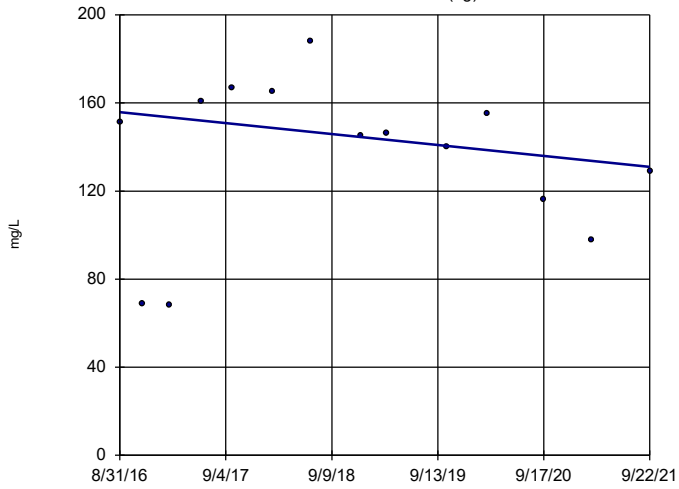


n = 14
 Slope = -33.47
 units per year.
 Mann-Kendall
 statistic = -66
 critical = -48
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLs
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)



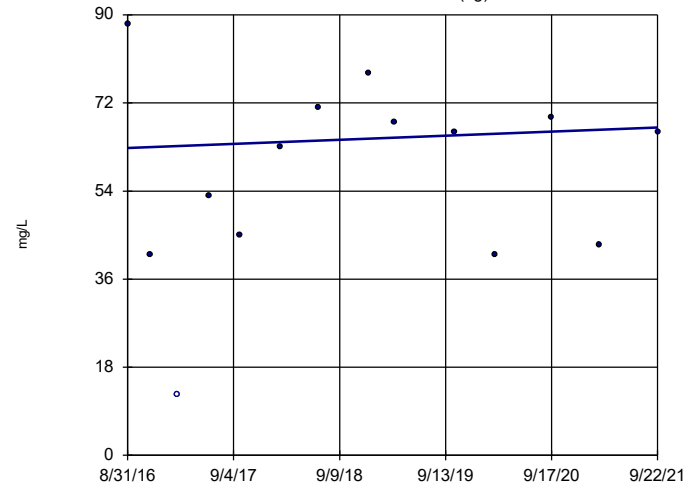
n = 14
 Slope = -4.927
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-2S (bg)



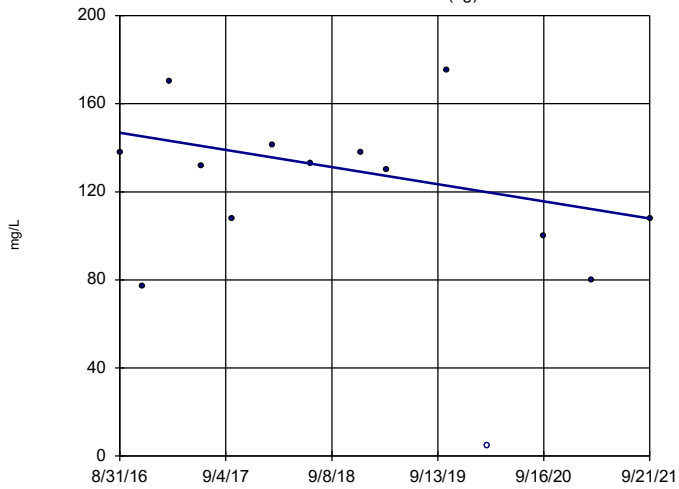
n = 14
 Slope = 0.8314
 units per year.
 Mann-Kendall
 statistic = 7
 critical = 48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-5I (bg)

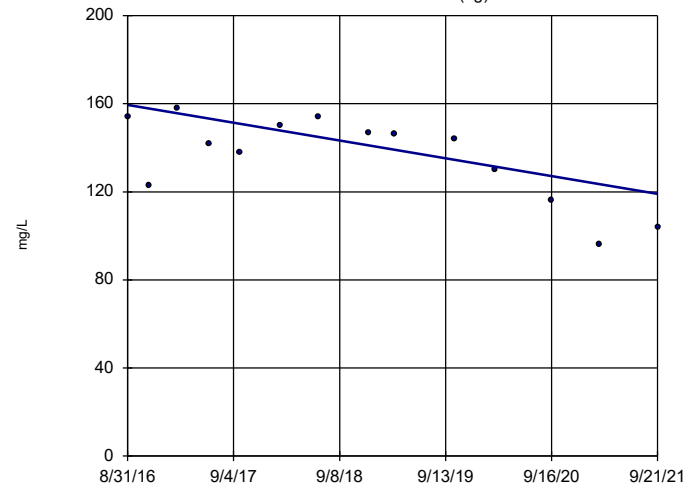


n = 14
 Slope = -7.713
 units per year.
 Mann-Kendall
 statistic = -21
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

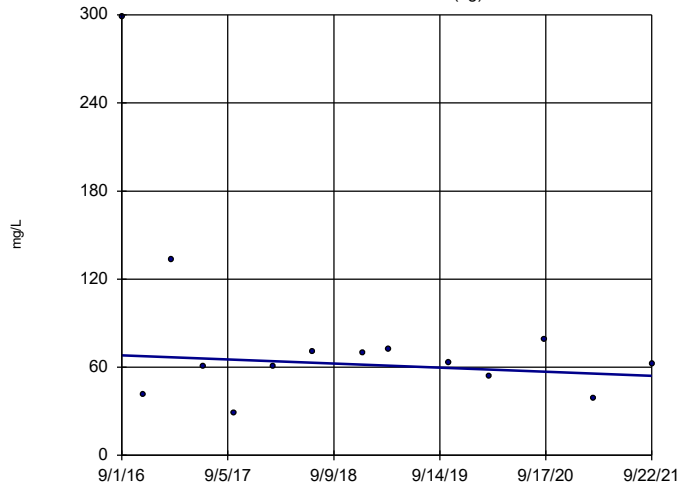


n = 14
 Slope = -7.968
 units per year.
 Mann-Kendall
 statistic = -46
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

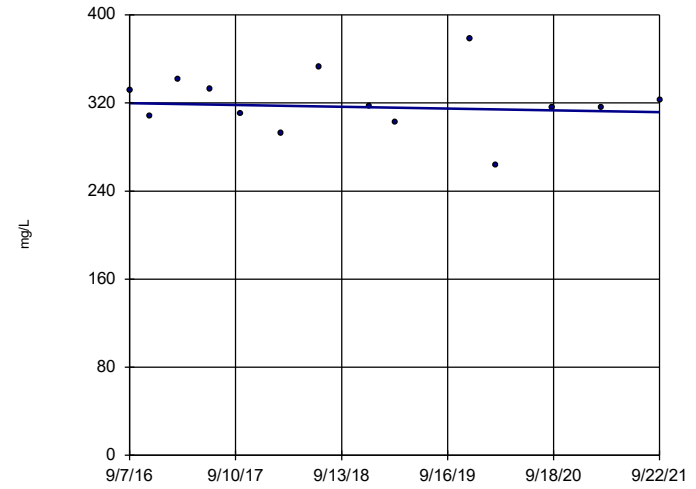


n = 14
 Slope = -2.774 units per year.
 Mann-Kendall statistic = -10
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-17S

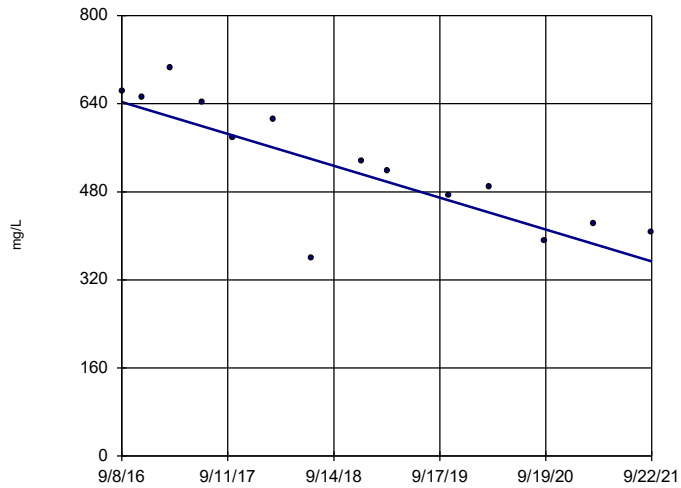


n = 14
 Slope = -1.586 units per year.
 Mann-Kendall statistic = -6
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-34S

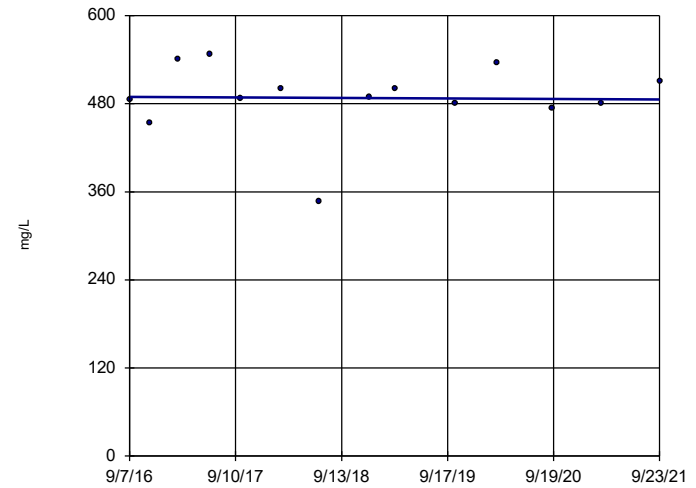


n = 14
 Slope = -57.34 units per year.
 Mann-Kendall statistic = -65
 critical = -48
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

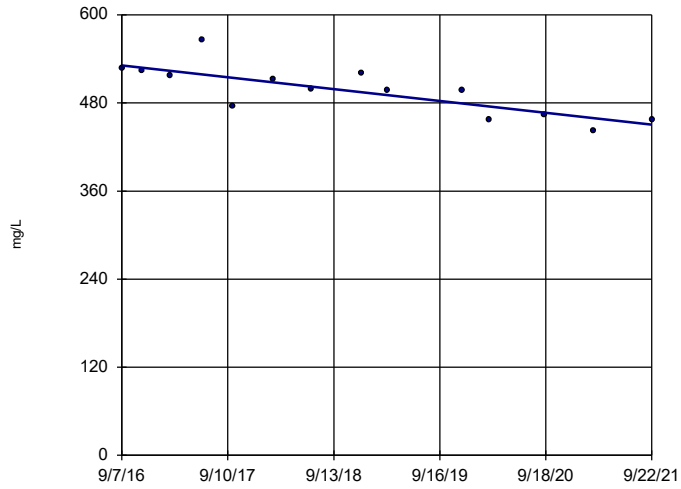
BRGWC-35S



n = 14
 Slope = -0.7228 units per year.
 Mann-Kendall statistic = -1
 critical = -48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
 Plant Branch Client: Southern Company Data: Plant Branch AP

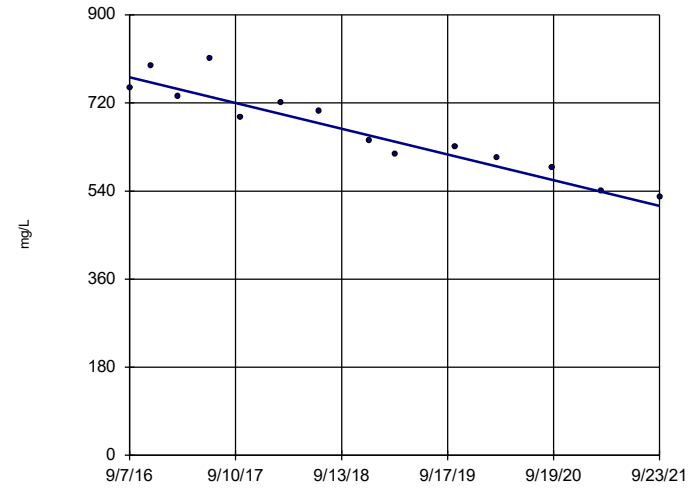
Sen's Slope Estimator BRGWC-36S



n = 14
Slope = -16.06
units per year.
Mann-Kendall
statistic = -63
critical = -48
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E PLS
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator BRGWC-38S



n = 14
Slope = -52.14
units per year.
Mann-Kendall
statistic = -77
critical = -48
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 11/28/2021 7:59 AM View: Trend Tests - Pond E 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 11/27/2021, 3:56 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	75	n/a	n/a	90.67	n/a	n/a	0.02134	NP Inter(NDs)
Arsenic (mg/L)	0.005	75	n/a	n/a	77.33	n/a	n/a	0.02134	NP Inter(NDs)
Barium (mg/L)	0.063	75	n/a	n/a	0	n/a	n/a	0.02134	NP Inter(normality)
Beryllium (mg/L)	0.0005	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)
Cadmium (mg/L)	0.0005	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)
Chromium (mg/L)	0.016	75	n/a	n/a	16	n/a	n/a	0.02134	NP Inter(normality)
Cobalt (mg/L)	0.005	73	n/a	n/a	46.58	n/a	n/a	0.02365	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	1.397	75	0.6541	0.3768	0	None	No	0.05	Inter
Fluoride (mg/L)	0.19	80	n/a	n/a	51.25	n/a	n/a	0.01652	NP Inter(normality)
Lead (mg/L)	0.0013	75	n/a	n/a	77.33	n/a	n/a	0.02134	NP Inter(NDs)
Lithium (mg/L)	0.089	75	n/a	n/a	42.67	n/a	n/a	0.02134	NP Inter(normality)
Mercury (mg/L)	0.00021	65	n/a	n/a	84.62	n/a	n/a	0.03565	NP Inter(NDs)
Molybdenum (mg/L)	0.01	75	n/a	n/a	69.33	n/a	n/a	0.02134	NP Inter(normality)
Selenium (mg/L)	0.005	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)
Thallium (mg/L)	0.001	75	n/a	n/a	100	n/a	n/a	0.02134	NP Inter(NDs)

FIGURE G.

PLANT BRANCH POND E GWPS			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.003	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.063	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	0.005	0.005
Combined Radium, Total (pCi/L)	5	1.4	5
Fluoride, Total (mg/L)	4	0.19	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	0.005	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Intervals - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:14 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>
Beryllium (mg/L)	BRGWC-38S	0.009533	0.00803	0.004	Yes	16	0.008781	0.001155	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05247	0.03819	0.005	Yes	16	0.04533	0.01097	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.261	0.2111	0.005	Yes	15	0.2361	0.03678	0	None	No	0.01	Param.

Confidence Intervals - All Results

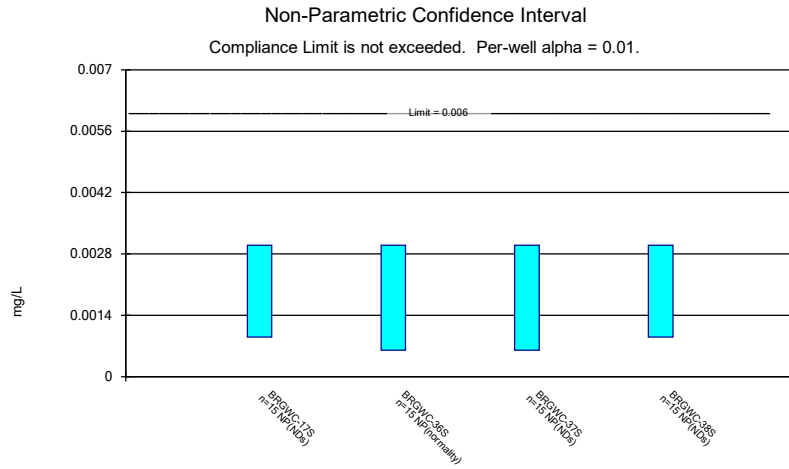
Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	15	0.00286	0.0005422	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.0006	0.006	No	15	0.002403	0.001059	73.33	None	No	0.01	NP (normality)
Antimony (mg/L)	BRGWC-37S	0.003	0.0006	0.006	No	15	0.002667	0.0008805	86.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0009	0.006	No	15	0.002707	0.000775	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.00073	0.01	No	15	0.004014	0.001802	73.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-33S	0.005	0.0006	0.01	No	16	0.004447	0.00151	87.5	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.0006	0.01	No	15	0.004096	0.001872	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.001	0.01	No	15	0.004143	0.001777	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-37S	0.005	0.00078	0.01	No	15	0.004107	0.001851	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003552	0.001712	0.01	No	15	0.002632	0.001358	6.667	None	No	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04272	0.03851	2	No	15	0.04061	0.003109	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.02247	0.02007	2	No	16	0.02127	0.00184	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-34S	0.03481	0.02498	2	No	15	0.02989	0.007253	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0701	0.036	2	No	15	0.04955	0.01952	0	None	No	0.01	NP (normality)
Barium (mg/L)	BRGWC-36S	0.04452	0.03212	2	No	15	0.03894	0.01063	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-37S	0.02514	0.02294	2	No	15	0.02404	0.00162	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0338	0.015	2	No	15	0.02211	0.01015	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-33S	0.0021	0.0014	0.004	No	16	0.001975	0.000856	6.25	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-34S	0.0002	0.0001	0.004	No	15	0.0007847	0.001712	13.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.00016	0.0001	0.004	No	15	0.000778	0.001714	13.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.005	0.000081	0.004	No	16	0.00132	0.002194	25	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-38S	0.009533	0.00803	0.004	Yes	16	0.008781	0.001155	0	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-33S	0.0004567	0.0003146	0.005	No	16	0.0003856	0.0001092	6.25	None	No	0.01	Param.
Cadmium (mg/L)	BRGWC-34S	0.0004931	0.0002202	0.005	No	15	0.0003707	0.0002201	13.33	None	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BRGWC-36S	0.0005	0.0001	0.005	No	16	0.0004488	0.0001401	87.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.0006164	0.0004902	0.005	No	15	0.0005533	0.00009309	6.667	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-17S	0.01271	0.009722	0.1	No	15	0.01129	0.002403	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	BRGWC-33S	0.005	0.00049	0.1	No	16	0.004718	0.001127	93.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006645	0.004195	0.1	No	15	0.00542	0.001808	6.667	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.00845	0.00723	0.1	No	15	0.00784	0.0009006	0	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-37S	0.005	0.0013	0.1	No	15	0.002207	0.001461	20	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-38S	0.004183	0.003449	0.1	No	15	0.00372	0.0007885	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05247	0.03819	0.005	Yes	16	0.04533	0.01097	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-34S	0.004668	0.003235	0.005	No	15	0.004	0.001182	6.667	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BRGWC-35S	0.005	0.0008	0.005	No	15	0.003667	0.001999	66.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-38S	0.261	0.2111	0.005	Yes	15	0.2361	0.03678	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.8147	0.3418	5	No	15	0.5783	0.3489	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.228	0.6374	5	No	15	0.9329	0.4361	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.099	0.7584	5	No	15	0.9289	0.2516	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.028	0.4491	5	No	15	0.7385	0.4271	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.211	0.636	5	No	15	0.9233	0.4239	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-37S	0.7803	0.3765	5	No	15	0.5784	0.2979	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.056	1.939	5	No	15	2.498	0.8238	0	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.16	0.085	4	No	16	0.1111	0.0461	6.25	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-33S	0.2372	0.1092	4	No	17	0.1818	0.114	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.15	0.07581	4	No	16	0.1241	0.08598	6.25	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.129	0.06211	4	No	16	0.1058	0.07576	12.5	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.051	4	No	16	0.1159	0.1129	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-37S	0.1	0.05	4	No	16	0.07813	0.02796	43.75	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9503	0.724	4	No	16	0.8481	0.204	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.001	0.0001	0.0013	No	15	0.0008769	0.0003249	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.001	0.000063	0.0013	No	16	0.0003298	0.0004019	25	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.001	0.0003	0.0013	No	15	0.0008327	0.0003493	80	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-35S	0.001	0.00012	0.0013	No	15	0.000768	0.0003988	73.33	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-36S	0.001	0.000047	0.0013	No	15	0.0009365	0.0002461	93.33	None	No	0.01	NP (NDs)

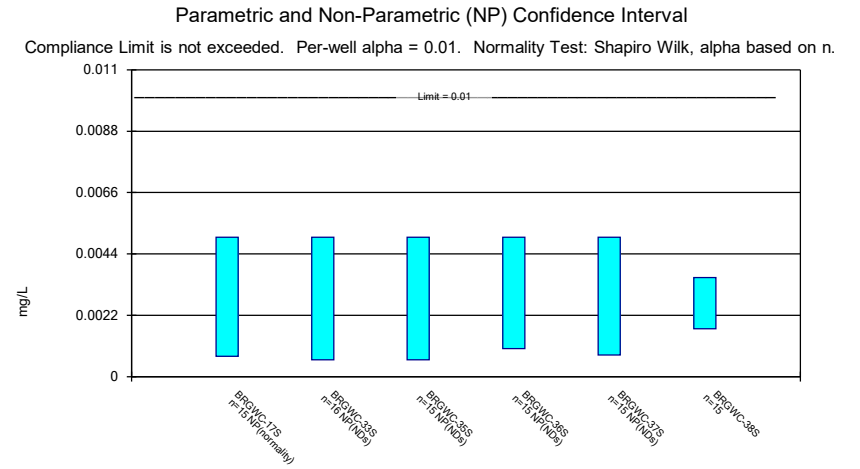
Confidence Intervals - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:14 AM

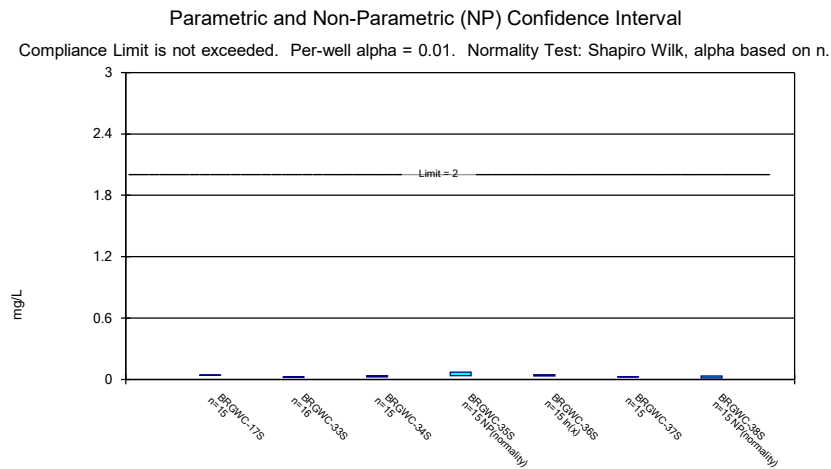
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	BRGWC-37S	0.001	0.0001	0.0013	No	15	0.00088	0.0003167	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00034	0.0013	No	15	0.0004333	0.0001676	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-17S	0.03	0.00097	0.089	No	15	0.01839	0.01472	60	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-33S	0.0103	0.009187	0.089	No	16	0.009744	0.0008563	0	None	No	0.01	Param.
Lithium (mg/L)	BRGWC-34S	0.03	0.00089	0.089	No	15	0.02029	0.01421	66.67	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-35S	0.0022	0.002	0.089	No	15	0.00214	0.00008281	0	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.0026	0.0022	0.089	No	15	0.0043	0.007111	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.02256	0.02032	0.089	No	15	0.02144	0.001659	0	None	No	0.01	Param.
Mercury (mg/L)	BRGWC-17S	0.0002	0.000084	0.002	No	13	0.0001726	0.00005268	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-33S	0.0002	0.00012	0.002	No	14	0.0001736	0.00005486	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0002	0.00007	0.002	No	13	0.0001677	0.00005615	69.23	None	No	0.01	NP (normality)
Mercury (mg/L)	BRGWC-35S	0.0002	0.00011	0.002	No	13	0.0001777	0.00004419	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0002	0.0001	0.002	No	13	0.0001769	0.00004553	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-37S	0.0002	0.00011	0.002	No	13	0.0001777	0.00004549	76.92	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.0001773	0.0001034	0.002	No	13	0.0001404	0.00004968	7.692	None	No	0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.00269	0.001711	0.05	No	15	0.003087	0.001371	26.67	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-33S	0.005	0.0028	0.05	No	16	0.003919	0.001242	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.005369	0.003098	0.05	No	15	0.004313	0.001805	0	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04205	0.03334	0.05	No	15	0.03769	0.006428	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.001	0.000066	0.002	No	15	0.0009377	0.0002412	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00022	0.00018	0.002	No	16	0.0002456	0.0002023	6.25	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.001	0.00019	0.002	No	15	0.0003953	0.0003188	20	None	No	0.01	NP (normality)



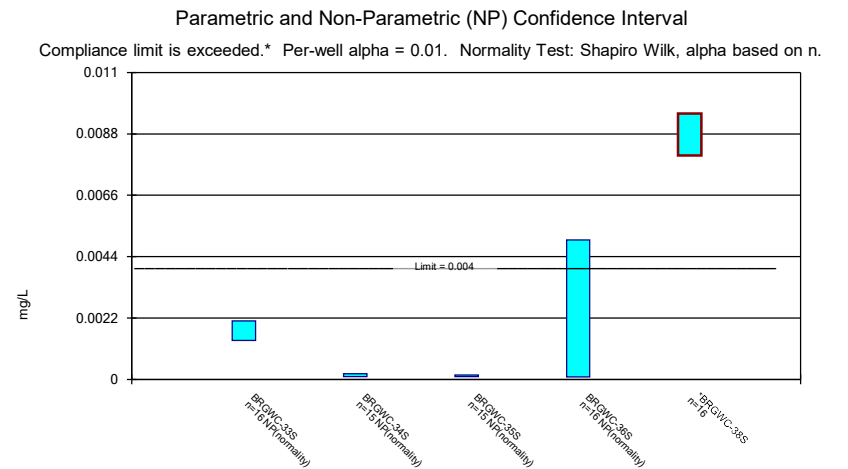
Constituent: Antimony Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Arsenic Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP



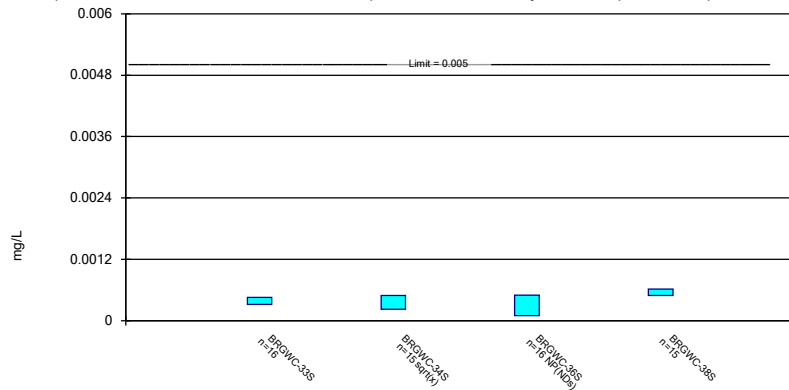
Constituent: Barium Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Beryllium Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

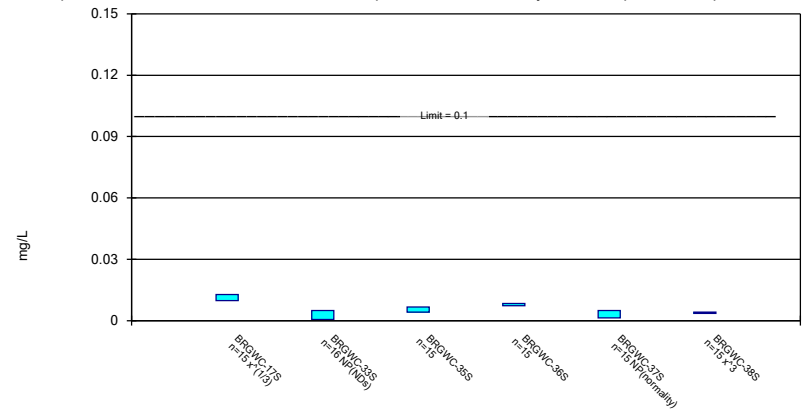
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

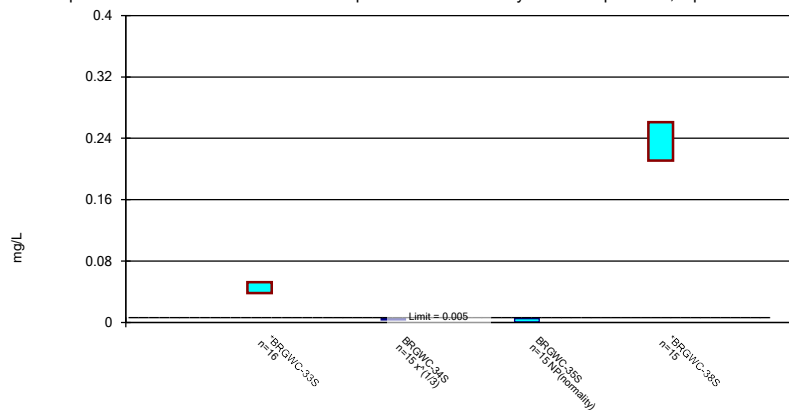
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

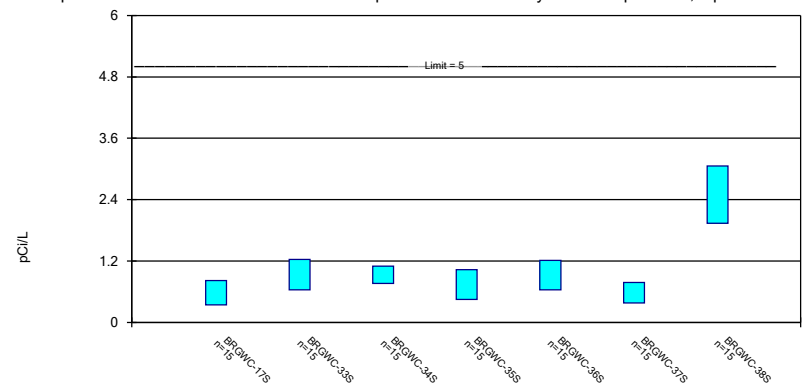
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric Confidence Interval

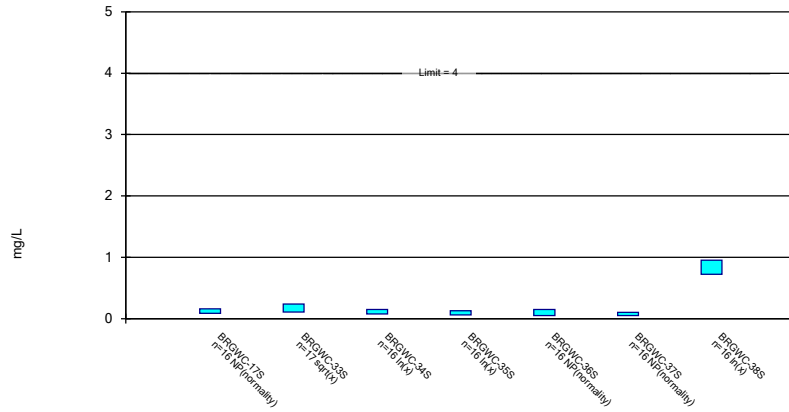
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals -
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

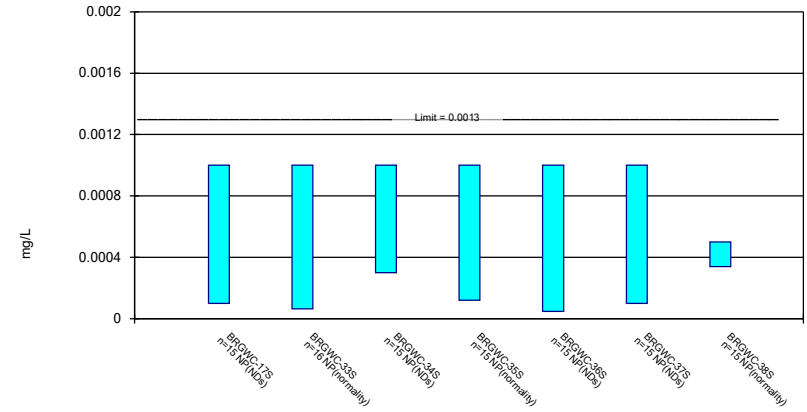
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Non-Parametric Confidence Interval

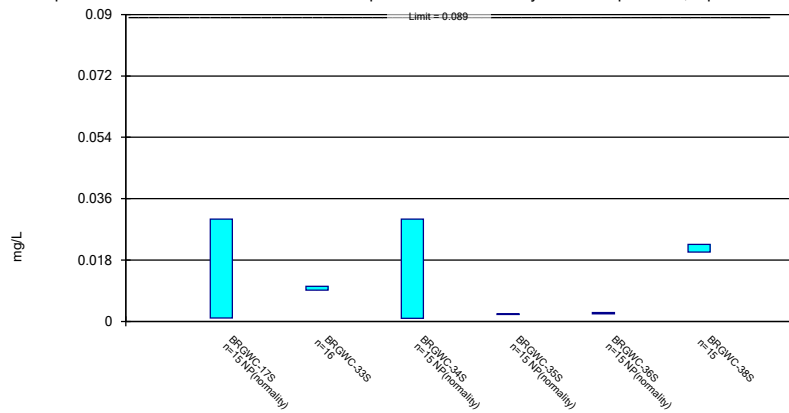
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

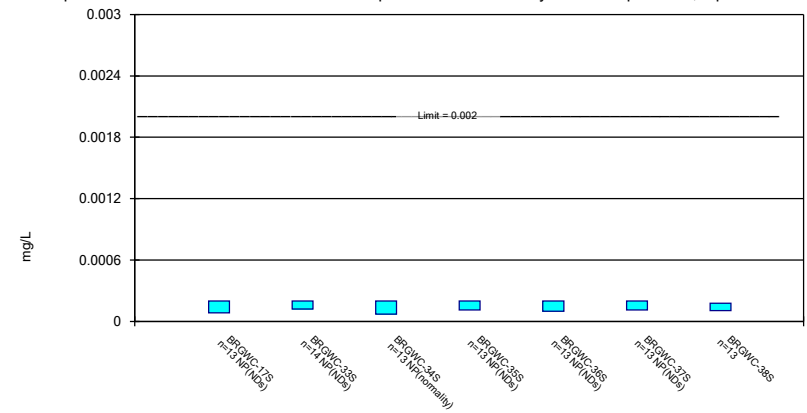
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

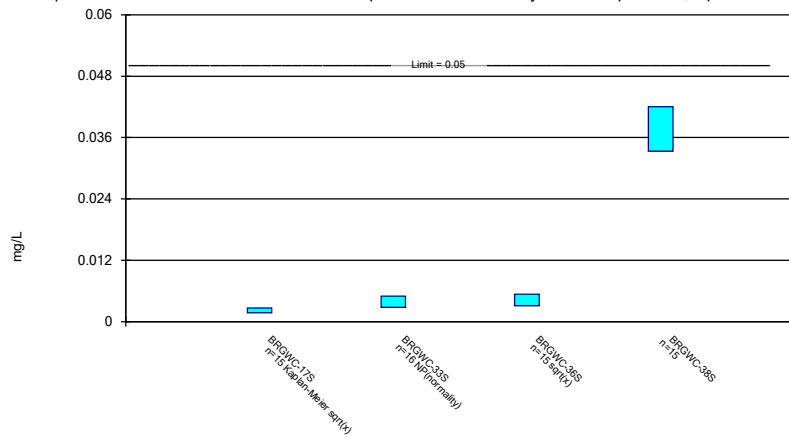
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Parametric and Non-Parametric (NP) Confidence Interval

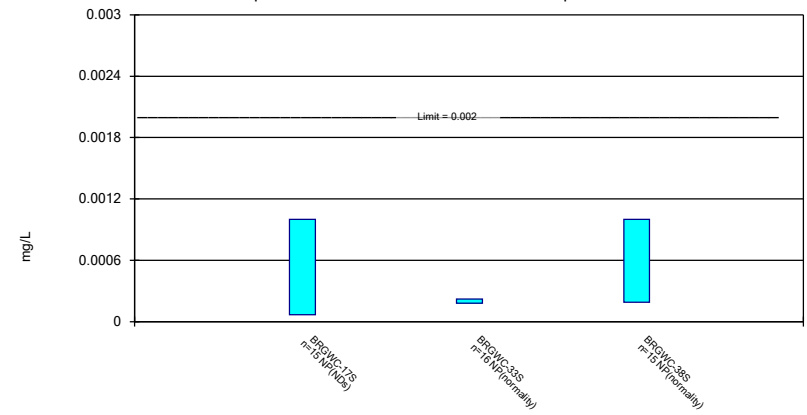
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
 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 11/28/2021 8:12 AM View: Confidence Intervals - Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE I.

Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:18 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWC-38S	-0.0005005	-64	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-33S	-0.006894	-108	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02062	-71	-53	Yes	15	0	n/a	n/a	0.01	NP

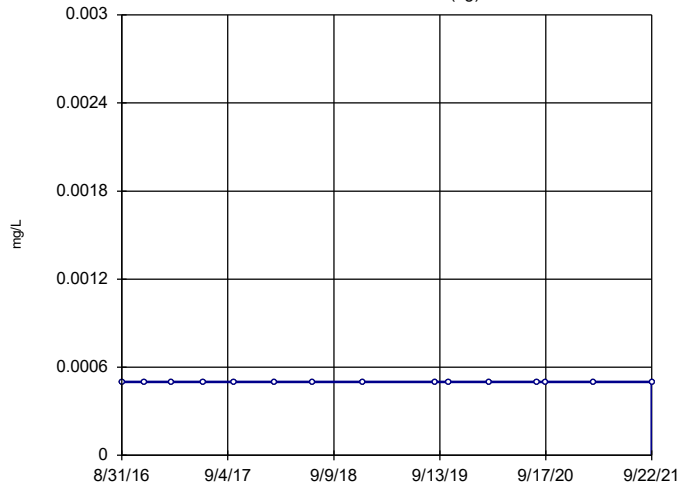
Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/29/2021, 9:18 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	BRGWA-2I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-2S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5I (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-5S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWA-6S (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Beryllium (mg/L)	BRGWC-38S	-0.0005005	-64	-58	Yes	16	0	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-33S	-0.006894	-108	-58	Yes	16	0	n/a	n/a	0.01	NP
Cobalt (mg/L)	BRGWC-38S	-0.02062	-71	-53	Yes	15	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

BRGWA-2I (bg)

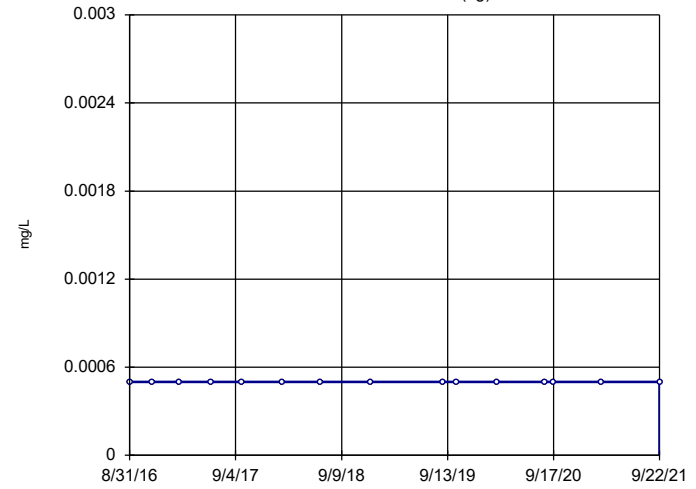


n = 15
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 53
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

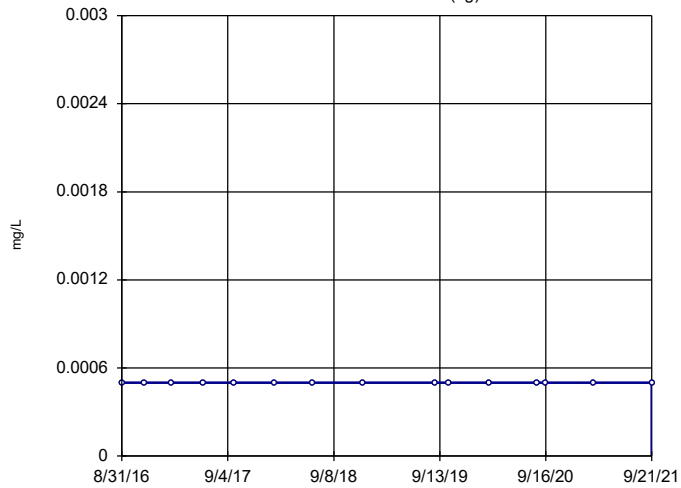


n = 15
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 53
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)

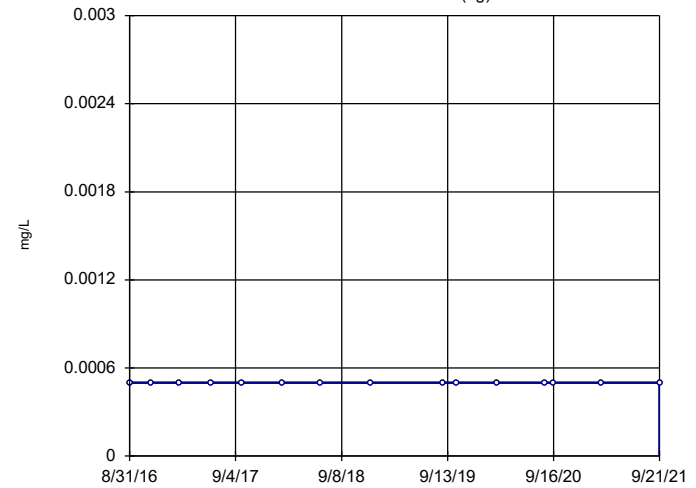


n = 15
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 53
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

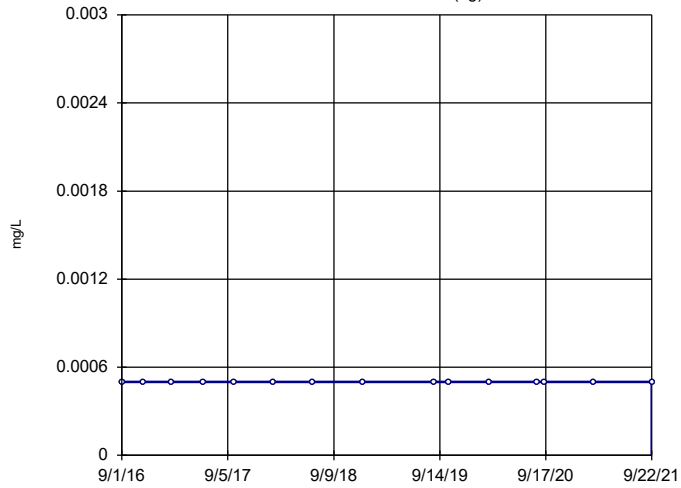


n = 15
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 53
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Beryllium Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-6S (bg)

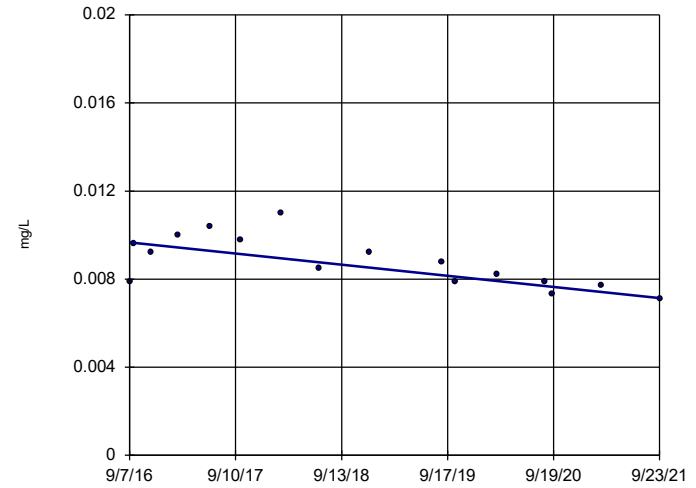


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 0
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Beryllium Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S

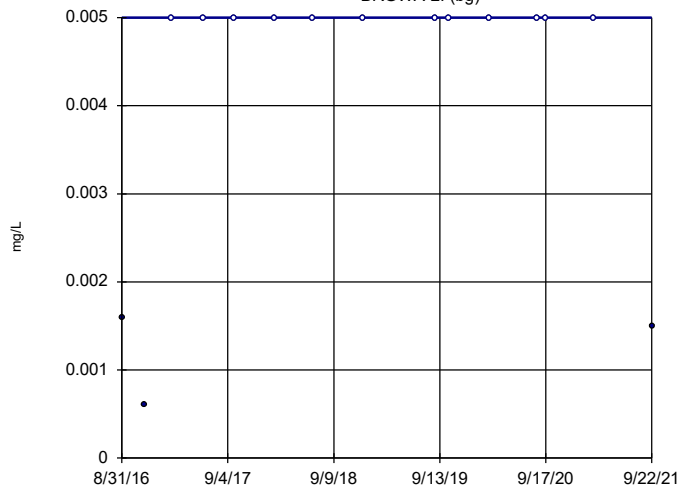


n = 16
 Slope = -0.0005005
 units per year.
 Mann-Kendall
 statistic = -64
 critical = -58
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Beryllium Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2I (bg)

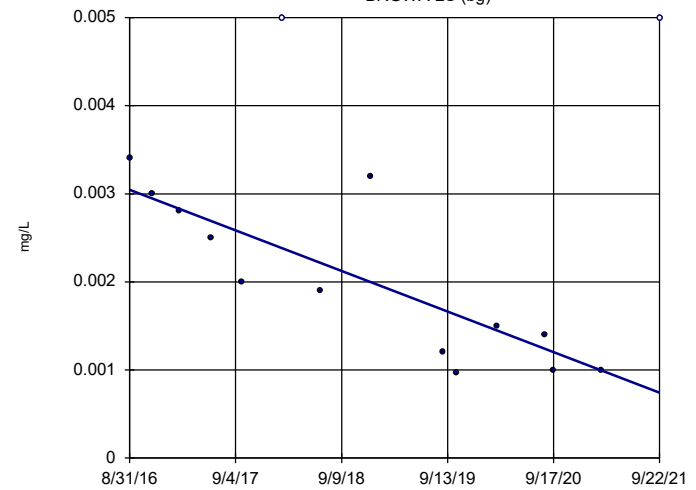


n = 15
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 11
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-2S (bg)

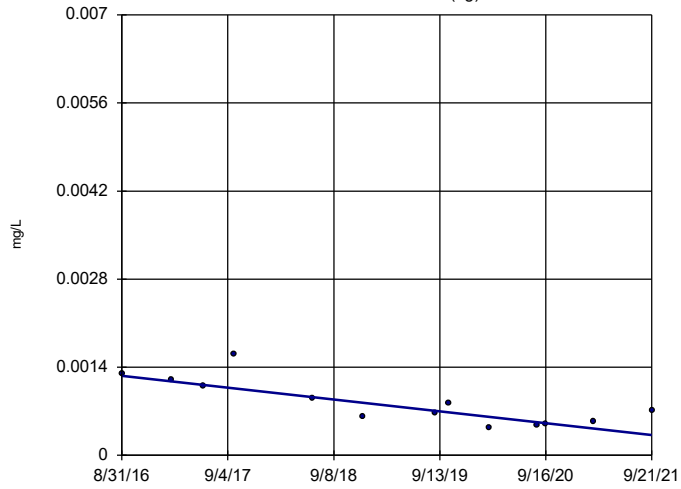


n = 15
 Slope = -0.0004551
 units per year.
 Mann-Kendall
 statistic = -45
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5I (bg)



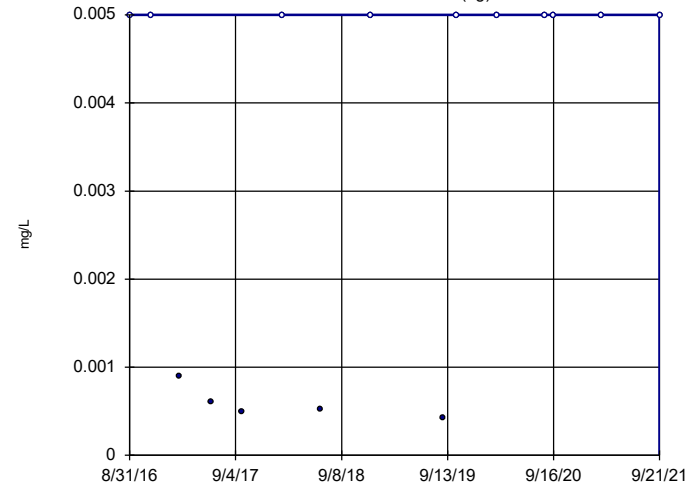
n = 13
 Slope = -0.000186 units per year.
 Mann-Kendall statistic = -42
 critical = -43
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-5S (bg)



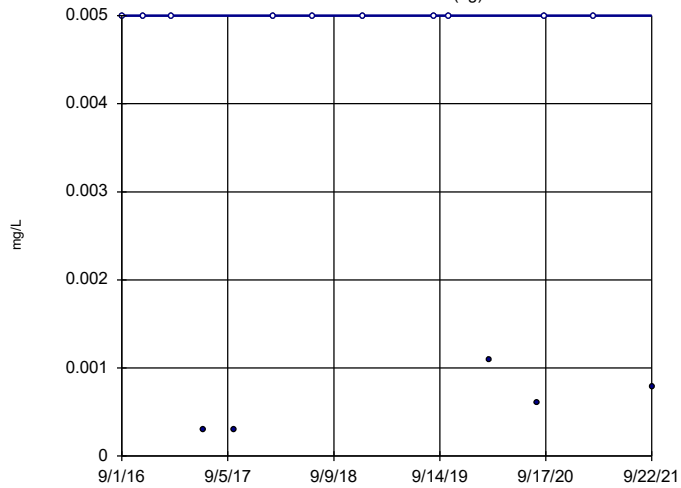
n = 15
 Slope = 0 units per year.
 Mann-Kendall statistic = 16
 critical = 53
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

Sen's Slope Estimator

BRGWA-6S (bg)

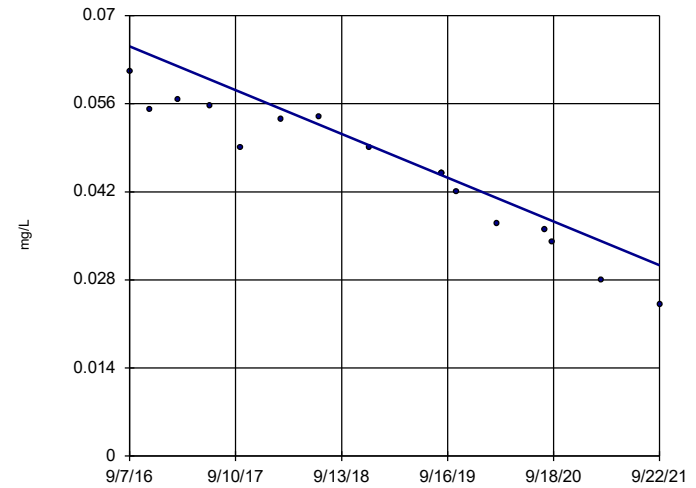


n = 15
 Slope = 0 units per year.
 Mann-Kendall statistic = -9
 critical = -53
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-33S

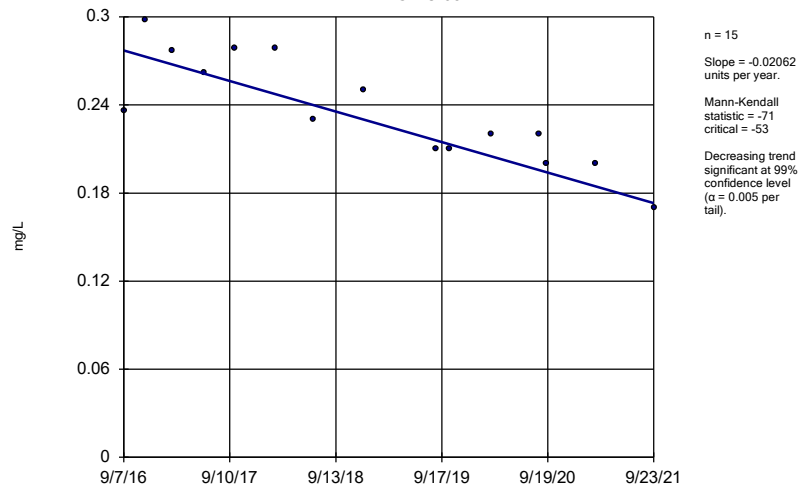


n = 16
 Slope = -0.006894 units per year.
 Mann-Kendall statistic = -108
 critical = -58
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWC-38S



Constituent: Cobalt Analysis Run 11/29/2021 9:15 AM View: Trend Tests - App IV Pond E
Plant Branch Client: Southern Company Data: Plant Branch AP



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